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An Analysis of the Factors that Influence Global Mindedness in First-Year College Students

Kristie Broadbent Guffey

Western Kentucky University, kristie.guffey@wku.edu

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AN ANALYSIS OF THE FACTORS THAT INFLUENCE GLOBAL MINDEDNESS IN FIRST-YEAR COLLEGE STUDENTS

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Presented to
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Doctor of Education

By
Kristie Broadbent Guffey

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AN ANALYSIS OF THE FACTORS THAT INFLUENCE GLOBAL MINDEDNESS
IN FIRST-YEAR COLLEGE STUDENTS

Date Recommended 10/16/12

Nevil Speer, Director of Dissertation

Tuesdi Helbig, Methodologist

Fred Carter
Sherry Powers

Dean, Graduate Studies and Research 10/13/12
This dissertation is dedicated to my family. My parents, Mike and Madonna Broadbent, have always supported me throughout every adventure. My mom embodies the definition of a loving, giving person. It was her natural gift of compassion that empowered me to travel abroad and give something back. My father is one of the hardest working people that I have ever met. He taught me that hard work and perseverance will get you far in life. He also taught me to never give up because someone or something stands in your way. You simply push, fight, and work harder to achieve your goal. My husband pushed and pulled me to the other side of greatness. Jamie is my best friend, my life support system, and my reality check. He was the one responsible for me starting this doctoral program at Western. He continued to check on my progress throughout the dissertation process and declared break time periodically for my sanity. He also had to wash more clothes, clean more dishes, and endured a stressed out wife for the last three years. For all of that, I am truly grateful to have such a wonderful partner in this life. I am humbly, blessed to have such a wonderful support system and hope that I can be that for others. Now, it’s time to travel!
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AN ANALYSIS OF THE FACTORS THAT INFLUENCE GLOBAL MINDEDNESS IN FIRST-YEAR COLLEGE STUDENTS

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Directed by: Nevil Speer, Tuesdi Helbig, Fred Carter, and Sherry Powers

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This non-experimental, quantitative descriptive study was designed to determine what factors influence a first-year college students’ global mindedness and if any of those factors were predictors of the five subscales of global mindedness. Surveys were used to measure students’ global mindedness and their type of personality (N=424). Demographic questions were administered that included gender, county population, Pell grant eligibility, and first generation college student.

Results indicated that first-year college students at a four-year public Master’s Large institution were moderately global minded. To predict global mindedness and its subscales, a regression model was developed using the Myers Briggs scores for extravert, sensing, thinking, and judging along with Pell grant eligibility, first generation college student status, gender, and county population as the independent variables. The prediction model indicated that global mindedness had four predicting variables that were either positively or negatively correlated with total global mindedness: extravert, sensing, and thinking personality types, and the demographic factor of socio-economic status. The five subscales of global mindedness each had predictive variables as well. More studies are needed to further enhance the effectiveness of instructional strategies concerning personality types on students’ global mindedness
CHAPTER I: INTRODUCTION

As the world becomes increasingly interconnected, the demand for global citizenship is essential for the success of our society. Higher educational institutions have stepped up to the challenge by internationalizing their curriculum and offering education abroad opportunities for their students. The metamorphic change has been a challenge for educators and researchers to measure this cadre of globalization among higher education. Globalization is the driving force shaping the demands of the labor sector for increasing interdependence (Torres, 2002). The understanding that the United States must play a key role in this global competitive market is felt throughout policymakers and the public (Artiles, 2003). Therefore, it is imperative that the educational sector take the lead in this initiative. Waks (2006) stated the educational system of the United States historically has been unsuccessful in integrating various immigrant groups. The segregation and isolation of these cultures among our schools and our society has caused these individuals to hibernate. The workforce of tomorrow must be globally aware and culturally sensitive to create the culture of interconnectedness. In particular, our students who are prepared for the world will be knowledgeable and have the capability to tackle the challenges of a global society (Martin, 2006). The question remains as educators, what are the influencing factors that direct a person’s attitude of the world?

President John F. Kennedy said, “We can make the world safe for diversity. For in the final analysis, our most basic common link is that we all inhabit this small planet. We all breathe the same air. We all cherish our children’s future and we are all mortal”
(Kennedy, 2010, p. 132). Thomas Friedman's (2005) popular non-fiction work, *The World is Flat*, reinforced the impact that globalization has played and continues to play in reshaping the American economy. Friedman stated that the American educational system must understand the factors that have led to the new realities about globalization, and then they can begin to make changes in their education systems to help the nation increase knowledge in the science, math, and engineering areas.

Internationalization is a common theme throughout higher education. According to Knight (2004), we define globalization in higher education as a process of integrating national/intercultural dimensions into teaching, research, and service functions of the institution. In an effort to become globalized, research has been conducted on the impact of study abroad programs, global awareness, and reasons for choosing to study abroad. In particular, most of the related studies focus on long-term and short-term study abroad programs and the impact of those programs. In recent years, the desire for quantitative data has spurned the interest of many global educators and universities throughout the world.

In an effort to promote cross cultural awareness and reduce ethnocentric behavior, a variety of pedagogies have surfaced among many curriculum models. The Open Doors Report (Institute of International Education, 2011a) reported an increase of students participating in study abroad, continuing the growth trend of the academic year prior to 2009-2010. The Open Doors survey (Institute of International Education, 2011) focused on study abroad numbers and enrollment, faculty-led program enrollment, study abroad staffing, and partnerships among universities. The development of study abroad
programs throughout the country has dramatically increased in the last decade due to the necessity of developing globally minded citizens.

One area needing further investigation that has not been conducted is to identify the current culture of global mindedness among freshman college students and the factors that influence students’ global mindedness, specifically regarding personality characteristics and demographic factors. It has long been accepted that personality has a connection to a person’s skill set, which is revealed as typology and can give insight into the individuals learning capabilities. Carl Jung’s work in the early 1900s developed a psychological approach to understanding human behavior (Northouse, 2007). Jung believed that personality could be identified and understood utilizing his typology model. He classified human behavior into four categories of personality and, thus, provided us with 16 possible combinations of personality (Northouse, 2007). Researchers have used Jung’s theory to develop instruments that measure personality. One notable instrument is the Myers-Briggs Type Indicator (MBTI, Human Metrics, 2010). The data from the instrument can be organized into one of eight categories based upon each individual question, thus providing the same summation as Jung’s theory (Wall, 2008). The types are extrovert versus introvert, sensing versus intuitive, thinker versus feeler, and judger versus perceiver (Wall, 2008; Moore, Dettlaff, and Dietz, 2004). Wall stated that over one million people have taken the MBTI per year since the 1990s.

Researchers have measured the impact and duration of study abroad and teaching abroad on global mindedness (Golay, 2006; Kehl, 2006; Cushner & Mahon, 2002). The MBTI has been researched and widely used throughout the educational and business world as a tool for leader success and understanding of employee behavior.
systems are using the MBTI to correlate student success with personality (Hammersley-Fletcher & Brundrett, 2008). However, little to no relevant research exists into understanding the global mindedness of individuals in relation to their type of personality.

The Research Problem

The desire to understand the current status of our students’ views of the world is imperative to bridging the gaps and connecting the dots. Our global society demands cross cultural sensitivity in this ever changing world. Minuscule research has broached the topic of the current state of global mindedness, but none has looked into the association of personality types and demographic factors. This research will focus on the influence of personality types, student demographic factors, and the ensuing importance of their perspective on the world. There also exists a large need to determine the effectiveness of universities’ international mission within the student body and the resulting world views of the students at a four-year public master’s large university. Thus, the question becomes: How might we implement various pedagogies to enhance an individual’s global mindedness in relation to type of personality?

The Purpose of the Study

The primary purpose of this study was to analyze the global mindedness of college freshman related to their personality traits and certain demographic factors. Particularly, what relationships to personality exist on each of the five global mindedness subscales? What is the relationship between demographic factors and global mindedness with specific focus on gender, population, first generation college student, and Pell grant eligible students (Socioeconomic status)? The research included several aspects. First, a
global awareness survey was administered to 424 first-year college students to determine their global mindedness. Simultaneously, a Myers Briggs typology questionnaire and demographic survey were given to determine if personality is related to students’ global mindedness. Using Pearson’s correlation of coefficients, the researcher determined whether a relationship exists between personality and global mindedness. Using multiple regressions, the researcher determined whether there are patterns and themes for predicting freshman students’ global mindedness based on their personality type and certain demographic factors.

This study assessed demographic factors and the Myers Briggs Typology questionnaire in relation to a freshman college students’ global mindedness. The research also provided an understanding of the current world views of the freshman student population. Universities, institutions, and organizations that develop and provide these types of experiences for students can use this research to understand the experiences of their student body and make changes or adaptations as needed to obtain the desired outcomes and educational goals.

**Research Questions**

The following questions gave structure to the factors that influence global mindedness for first-year students.

1. What are the relationships of personality and demographics on global mindedness of first year college students?
2. What are the implications and how can higher education utilize this knowledge?
Significance of the Study

The significance of this study lies in the fact that the majority of the students who attend this public four-year institution are those that have not travelled abroad. Universities are focusing their resources and energy into internationalizing their campuses and promoting study abroad. The quantitative analysis of this research evaluated freshman college students’ global mindedness and to identify any factors, such as personality or demographics, which could influence their view. This study was intentionally limited to first-year college students at a south central comprehensive university. The researcher chose first-year students to determine their level of global mindedness prior to the exposures of a comprehensive university. The results from this study will provide the researcher a more conclusive overview of the global mindedness of college freshmen and the possible implications that impact this view. Last, the researcher can utilize this data to implement pedagogies in higher education systems to enhance global mindedness.

Definition of Terms

The following terms are defined to provide clarity in this study:

Attitudes: Beliefs, feelings, or values that influence the way one behaves toward individuals, groups, or in particular situations (Van Overwalle & Siebler, 2005).

Cross-cultural: “Characterized by common behaviors, consumption patterns, methods of entertainment, values, and ideologies…which reflect an integration of several different cultures” (Clarke, 2004, pp. 52-54).
Culture: “The values, norms, institutions, and modes of thinking to which successive generations in a given society have attached primary importance” (Brown, 2002, p. 66).

Cultural Pluralism: Appreciation of the diversity of various cultures (Hett, 1993).

Efficacy: The belief that a person’s actions can have a profound impact upon a global society (Hett, 1993).

Ethnocentrism: The worldview that one’s own culture is superior to all others (Bennett, 1993).

Extravert Personality Type: A person who is energized from being surrounded by people (Berens, 2001).

Feeling Personality Type: A person who is perceived to make decisions based on empathy or emotion (Berens, 2001, p.8).

Global Awareness: “The extent to which a person is cognizant of the fact that experiences and events are part of an international, global, or world society, and his understanding of himself as a member of that society” (Schuerholz-Lehr, 2007, p. 183).

Global Mindedness: An individual who demonstrates compassion, understanding, and a desire to improve the circumstances for the less fortunate of the world (Golay, 2006).


Interconnectedness: An awareness and appreciation of the interrelatedness of all cultures that results in a sense of belonging (Hett, 1993).

Introvert Personality Type: A person who is energized by solace (Berens, 2001).
Intuitive Personality Type: Person who formulates data in an abstract manner (Berens, 2001).

Judging Personality Type: Person who lives and functions in an organized way (Berens, 2001).

Perceiving Personality Type: A spontaneous person who makes decisions on a whim or the last minute (Berens, 2001).

Personality: Carl Jung’s theory of typology reflects four dimensions of sensing, feeling, thinking, and intuition. It also refers to how a person directs their energy, introvert or extravert. Last, how that person makes decisions based on perceiving or judging (Wall, 2008).

Responsibility: A concern for all people. Moral obligations to improve conditions of those less fortunate are important aspects of the individual (Hett, 1993).

Sensing Personality Type: A person who gathers data literally and precisely (Berens, 2001).

Thinking Personality Type: A person who prefers to make decisions based on data (Berens, 2001).
CHAPTER II: REVIEW OF LITERATURE

Research and subsequent documentation regarding college-student perspective of the world is relatively limited; this study is designed to partially fulfill that gap.

Meanwhile, many colleges and universities are committing resources and energy into internationalizing their campuses and students. Quantitative analysis of the research will evaluate freshman college students’ global mindedness and identify any factors, such as personality and/or demographics that could influence their view of the world. The results from this study provide the researcher a more conclusive overview of the global mindedness of college freshmen and the possible implications that impact this view.

Last, the researcher can utilize this data to implement pedagogies in higher education systems to enhance global mindedness among student populations.

Development of Global Knowledge

The necessity for tolerant acceptance and thinking globally in our society has become the forerunner in school dynamics. With the ever changing face of our market systems, trade policies, and innovative technology, it is pertinent for our society to become better educated and culturally sensitive. To be successful in the work force, one must enhance their global literacy and avoid cultural ethnocentrism. The competitiveness of the global market ignites the demand for an increasingly heterogeneous society (Clarke, 2004). Waks (2006) identified trends in middle class American societies in relation to integration of different cultures. The study revealed little to no integration of these cultures and, furthermore, an exclusion of new ethnic groups into their societies. Successful businesses are encouraging employees to think globally and act locally. This type of philosophy can be pivotal in globally educating our future leaders, businesses,
and educators. The innovation of schools to develop and model this type of behavior is vital to our success as a society. Kagan and Stewart (2004) challenged the educational sectors to change their ideology from one of community concerns to one that focuses on global concerns. They also suggested that all educational systems create an instrument to measure the proficiency of students’ global competencies in order that they may be successful in this ever changing society.

According to the Institute of International Education (2011a), a majority of American students lack a basic awareness of world affairs. Keith (2004) noted that one method of developing some level of cultural competency is participating in study abroad programs. Echoing Keith, Hanvey (1976) has argued that study abroad experiences promote individuals’ awareness of cross cultural issues, human choices, and global affairs, enabling them to make effective judgments in their personal and professional lives. The experience of being immersed in the culture of the host country further compels individuals to re-examine their views and develop a more global perspective that is vital to the interdependent nature of today’s environment (Craig, 1999). Hett (1993) claimed that changes in an individual’s world views often is the result of a reduction in ethnocentrism, an increase in cross cultural adaptability, the development of a sense of responsibility, and an increased understanding of the interconnectedness of the world, each of which can be facilitated by study abroad participation. As such, encompassing a global knowledge is as necessary for all students. However, all students do not have the finances, desire, or the wherewithal to travel abroad during their college career. Therefore, it is imperative that higher education institutions educate all students to
become global citizens by using other methodologies along with study abroad to achieve this goal.

The driving force behind globally educating our society should be our educational systems. Educational institutions throughout the country have adopted mission statements, vision statements, and goals strategically aligned with the internationalism theme. It is imperative in this society that higher education institutions must integrate intercultural relations into our curriculum. The formality of simply identifying countries on a map is not developing culturally sensitive individuals, nor is it educating them on misinterpretation of social cues or of unintentional social blunders (Heyward, 2002). Hayward was insistent that the narrow mindedness and lack of openness in our educational systems limit our capability to be intercultural citizens of a global society. The permeation of internationalism should be present in every component of education.

The necessity to internationalize students is under little debate. However, the implementation is the challenge. In the *Journal of Studies in International Education*, Stone (2006b) discussed possible indicators in internationalizing students. He listed learning outcomes, guidelines, and objectives to internationalizing our educational systems. His list encompassed faculty attributes, curriculum design, and content. However, few implementation strategies were mentioned. In addition to Stone, Golay (2006) discussed methods on internationalizing our student through direct interaction with various cultures as a method of transforming an individual’s ethnocentric behavior. The argument remains whether higher education institutions can globally educate the population without embracing another culture or traveling to another country and, in doing so, not lose their identity (Davies, 2006).
Global Mindedness

Perceptions of the world’s existence are due to an individual’s cultural background. When students are exposed to other world cultures, does that experience change their world view compared to a student who has not travelled abroad? Bandura (1989) developed the social cognitive theory that stated human behavior and perception were a result of the combination of these three components: behavior, personal factors (biological, cognitive, and affective), and the environment. His theory goes on to illustrate that a person’s cognitive ability can be influenced by environmental factors and individual behavior.

Comparatively, intercultural sensitivity according to Bhawuk and Brislin (1992) is a person’s reaction to those from other cultures, which can predict their ability to work successfully with people from other cultures. In essence, it can predict the individual’s capacity to integrate with other cultures by measuring their sensitivity to these cultures. In Anderson, Lawton, Rexeisen and Hubbard’s (2006) pilot study measuring short term study abroad and intercultural sensitivity, they utilized the Intercultural Development Inventory (IDI) to assess intercultural sensitivity of short-term study abroad students. The instrument they used was designed by Hammer and Bennett (2002) to identify the stages of development in which a participant migrated from denial to integration of a culture in this model (p. 440). They report that an individual’s response to other cultures develops and changes over time. The ability to develop intercultural sensitivity is determined by one’s ability to experience other cultures (Hammer, Bennett, & Wiseman, 2003). Therefore, in developing globally responsible
citizens, it is essential to determine their cross-cultural sensitivity and expose them to other cultures.

Most research includes a demographic profile to identify any influential factors that could pertain to the research. Demographic factors are typically defined according to how the United States conducts its census data. Demographics are gender, race, religion, education, marital status, population statistics, socioeconomic status, and many other factors. The cadre of the intercultural sensitivity model (Anderson et al., 2004) and Bandura’s (1989) social cognitive theory illustrates a unique portrait suggesting that no one single demographic factor would indicate a broader, integrative world view. However, this would suggest that the combination of demographic factors, along with environmental factors and an individual’s behavior, could be more predictive of a person’s cultural acceptance.

Global mindedness as first described by Sampson and Smith (1957) is "a value orientation, or frame of reference, apart from knowledge about, or interest in, international relations” (p. 99). Most educators agree that all students need to utilize skills that allow them to interact, compete, and exist within a global society. Therefore, it is pertinent at the post-secondary level that students are exposed to various cultural experience; and one way is through study abroad programs. The Ohio State University conducted an undergraduate survey of 145 students. Zhai and Scheer (2004) discovered that students had an increase in their level of global awareness and their attitudes toward cultural diversity were more positive if they were exposed to people from other countries, as opposed to those with no exposure. Zhai and Scheer used the Global Mindedness
Student Attitude Survey (Hett, 1993) to measure student preparedness for a study abroad experience or the ability to integrate into another culture.

Research performed at The Ohio State University revealed that exposure to other cultures increased global mindedness more than those who had no exposure. The students with exposure to other cultures developed cultural pluralism. Golay (2006) conducted a similar study to measure the impact of study abroad pretest-posttest on students at the University of Florida. Her study concluded that study abroad had a significant impact on the level of global-mindedness in the cultural pluralism factor and the overall impact of world views. Therefore, having two cultural frames of reference could enhance one’s world view.

In a recent *International Educator* article by Tillman (2011), Darla Deardorff, executive director of the Association of International Education Administrators (AIEA), addressed the desire to establish learning outcomes that reflected intercultural competence in students traveling abroad. Deardorff has been speaking, writing, and researching this concept of cultural competence for several years. In her recent edited textbook, *The SAGE Handbook of Intercultural Competence*, she offers a worldview understanding of cultural competence through actual field experience. The textbook offers a guide to building education abroad programs that provide standard learning outcomes to be achieved by students. The utilization of 45 Western and non-Western authors to illustrate the meaning of intercultural competence provides a unique perspective to the approach. One chapter entitled, *The Evolution of Intercultural Competence in U.S. Study Abroad* (Tillman, 2011) used six not-for-profit university study abroad programs exhibiting the paradigm of cultural competence. These programs have
been in existence for over 30 years. Each has formulated the program to answer these three questions:

1) What is the nature of intercultural competence? 2) What is the process by which intercultural competence develops? 3) How can individuals be taught, trained, and/or mentored regarding the development of intercultural competence? (Tillman, 2011, pp. 14-16)

Intercultural competence is more than merely visiting another culture; it is becoming integrated into the culture by relationships, reflective practices, and immersion into the culture.

Deardorff worked with Dr. Richard Sutton on numerous assessments, panels, and councils. The Glossari project authored by Sutton and Rubin (2004) conducted a longitudinal study attempting to assess learning outcomes among different forms of study abroad over a 10-year period. The assessment measured five areas of knowledge content:

1. Necessary skills for operating in other cultures
2. Interaction techniques in other cultures
3. Understanding of global interdependence
4. Comparing and contrasting cultures, and
5. Knowledge of world geography.

Sutton and Rubin (2004) concluded that students who participated in a study abroad experience reported higher levels of knowledge content than students who did not participate in an education abroad project.

Mezirow’s (1990) evolving transformational theory reviewed at three critically important phases believed to be essential components that promote the globally minded
citizen. One crucial phase emphasized as being foundational is that critical reflection on an individual experience will transcend the person into a transformation. Self-reflective analysis stimulates critical thinking, problem solving, and cultural relativism. By including reflective practices in the international experience or curriculum, the individual will be engaged into the beginning stages of transformation.

Conversely, a recent article in the *International Educator* by Michael Woolf (2011), deputy president for CAPA International Education in London, had a different perspective on global citizenship. He argued that higher education institutions are setting unrealistic expectations for students participating in a study abroad experience. He went on to say that the concept of being a globally minded citizen is a contradictory statement. We are citizens of the United States; we are not citizens of the globe. If educators insist that students become globally minded citizens, then they are setting them up to fail. The statement that you are a global citizen is an absolute. The individual is either a global citizen or not. Woolf preferred that higher education institutions indicate their goal is to produce better educated citizens by experiencing another culture instead of classifying students as global citizens.

**Internationalizing Curriculum**

Historically, the evolution of internationalizing curriculum to aid in developing a better educated society stems from political, social, and cultural upheaval. After World War II, American citizens had become increasingly skeptical of cultures that were different and became increasingly ethnocentric of other societies. The social turmoil of the 1960s proved a substantial distraction for Americans, as many universities again turned inward to focus on campus unrest and uprisings (Levine, 1978). By the 1970s
President Jimmy Carter’s appointment of a Commission on Foreign Language and International Studies was evident of the desire for changing perspectives in international education. The new role of the Commission required an adequate supply of specialists knowledgeable of other countries and international issues. This spurned new career paths for many students throughout college campuses. During the same time, the Office of Education sponsored a Global Education Task Force in 1977 to identify any implications of sustenance on global education. The 80s saw local, state, and national support for international exchange continue, as study abroad attracted an unexpected level of interest in American higher education (Fersh & Greene, 1984). More recently, the federal government sought to strengthen International Education programs by issuing a policy to all department and agency heads (Clinton, 2000). Former President Bill Clinton called for a “coherent and coordinated international education strategy” (p. 38) in the policy. The commitment of the federal government had identified specific goals for increasing international education. The policy encompasses a transformation of “all activities and programs with an international perspective that affect campus administrators, U. S. students, and foreign students on campus and the local community and businesses, including the institution’s relations with out-of-country governments, agencies, institutions and students” (Baker, 1999, p. 13). This vague policy does not address procedures, assessments, or any other measurable ways to attain this lofty goal.

Due to this policy, many institutions sought better methods of implementing the ambiguous process. The National Association of State Universities and Land Grant Colleges (NASULGC) published a strategic vision statement in May 2000 (National Association of State Universities Land-Grant Colleges, 2000). This vision statement
promoted a theme of “engagement with the continually emerging world community” (p. 1). The guide outlines central activities and action plans within the various missions of post-secondary education: teaching and learning, research and scholarship, service and outreach. The document also defines key components institutions should consider as they assess their activities in an international context. NASULGC focuses the components of successfully fulfilling the vision statement on these criteria: study abroad, international students, international faculty exchange, international curriculum, international research, and service programs. Higher education defines internationalization through knowledge, students, scholars, and curriculum (Kerr, 1991). The NASULGC’s criterion for implementing this change falls within Kerr’s model for internationalization. Kerr (1991) described knowledge as the diffusion of information internationally within three types of fields of study. The first field of study is the physical sciences, life sciences, and mathematics. The second falls within the social sciences and humanities Public administration is influential in developing the internationalization of students through knowledge.

In spite of the numerous objectives and mission statements, a lack of data still exists assessing national progress in these areas (American Council on Education, 2000). The challenge in providing data lies in the fact that these enterprises are more difficult to quantify than the number of students studying abroad, the number of international students and faculty, or foreign language class enrollment. However, several consistent patterns are found in literature concerning globalization. Technology’s impact on internationalization is a growing trend. Schoorman (2000) identified five types of course
designs relevant to the internationalization of the curriculum: language courses, infusion, area studies, cross-cultural, and global studies.

Schoorman’s (2000) design explored the impact of international themes, concepts, and perspectives in business, communication, and other courses as an infusion of globalization. He discussed additional international courses and majors to enhance the curriculum. Several universities have implemented courses, mandatory language courses, and international examples throughout course curriculum; yet, little evidence of the impact of these designs is being assessed.

Although there are many ways of internationalizing the curriculum, the literature suggests that U. S. institutions of higher education have not been successful (Fugate & Jefferson, 2001; Kwok, Arpan, & Folks, 1994; Nehrt, 1993; White & Griffith, 1998). In fact, one study suggested that the majority of institutional programs “had internationalized their curriculum to only a small extent” (White & Griffith, 1998, p 110-111). Harari (1992) challenged this concept of internationalizing curriculum by adding a course or two as an inadequate approach. Davies (1992) suggested that this approach was unplanned and arbitrary. According to White and Griffith’s 1998 study of U. S. business schools, the result was a lack of preparation to become a “high quality global manager” (p 110-111). The American Council of Education’s article, Public Experience, Attitudes and Knowledge: A Report on Two Surveys about International Education (Hayward & Siaya, 2001), further conferred the fact that the outcome for students was a general lack of knowledge about the rest of the world. A scaffolding approach of systematically unveiling small approaches to internationalizing curriculum often has been discussed in literature. Obviously, a curricular initiative of this type must involve the
faculty (Cohen, 1997). Schoell (1991) noted that international students also can act as resources for broadening a course perspective.

**Study Abroad**

Study abroad has been the mechanism used by higher education to internationally educate their student body. Hanvey (1976) argued that study abroad experiences promote individuals’ awareness of cross cultural issues, human choices, and global affairs, enabling them to make effective judgments in their personal and professional lives. Therefore, he petitioned money and resources to aid students in traveling abroad. The experience of being immersed in another culture compels individuals to evaluate their current world views and begin the process of developing a more global perspective that is vital to the interdependent nature of today’s environment (Craig, 1999). It is evident that emersion into a culture is a key component to globally educating our society.

The primary debate that surfaces among study abroad programs involves the duration requirement of the program as it pertains to language barriers and subsequent development of language fluency critical to developing global citizens. However, the consensus of higher education remains that study abroad programs, regardless of the location, language barrier, or duration, can have a transformational impact on students (Golay, 2006).

The duration of study abroad programs varies between long-term, semester-long, and short-term options. Although year-long and semester-long programs have been popular models, financial limitations and time restrictions often prevent some students from taking advantage of these programs (Sachau, Brasher, & Fee, 2009). To address this challenge, many colleges and institutions have begun to provide cost-effective and
efficient short-term education abroad models to accommodate a greater number of students. As such, short-term education abroad programs have increased recently across U. S. colleges and universities, and student participation in these programs has increased over the years (Institute of International Education, 2006; Hulstrand, 2009; King & Young, 1994).

Courses that are designed to last between one to six weeks, in addition to programs that include volunteer activities, internship opportunities, and overseas employment during a similar timeframe, are typically referred to as short-term study abroad programs (Hulstrand, 2009; Raby & Sawadogo, 2005). Short-term abroad programs are often led by faculty who teach intensive courses during school breaks, including during summer sessions and winter breaks (Buschman, 1997). Considering the demographics and diverse backgrounds (i.e., various professional and familial commitments and financial situations) of students attending community colleges, a nontraditional or short-term study aboard model often is a more suitable option for students who wish to engage in a study abroad program (Raby & Sawadogo, 2005). Similarly, Hulstrand argues that short-term programs are particularly attractive for community college students and others who have family or job obligations or limited monetary resources, as well as those who are not emotionally and linguistically ready for long-term immersion programs. Research gathered from the Institute of International Education (2006) indicated that, in 2004-2005, 76% of all students from community colleges that participated in study abroad programs chose short-term compared to 43% of students from baccalaureate institutions.
Critics of short-term education abroad models question the outcomes of these programs and believe that shorter academic periods abroad may not provide students the chance of becoming fully immersed in the host culture, which is essential for improving foreign language proficiency as well as for developing a better appreciation of the similarities and differences that exist between the homeland and the host country (Boggs & Irwin, 2007). However, advocates have argued that short-term educational experiences abroad can lead to many academic advantages. Benefits associated with short-term study abroad programs include an increase in student knowledge of global and international interdependence and appreciation of other cultures, enhanced interest in study abroad opportunities, and enhanced self-confidence (Hulstrand, 2006; Sachau et al., 2009).

Students at community colleges are not immune to the forces of globalization (Raby, 2006). Whether they transfer to a four-year institution to continue their academic pursuits or complete their studies at the community college level, students are challenged to possess an awareness and knowledge of cultures other than their own and to be equipped with the competencies to work and live in today’s global environment.

In summary, study abroad programs have become prevalent across higher education institutions in the U. S. and are considered well-suited for post-secondary institutions. Due to the duration and scope of study abroad models, students get the opportunity to advance their academic learning despite family, employment, and financial obstacles.

**Transformational Global Learning**

Transformational global learning is a process constructed in the mind of the learner who integrates multiple aspects of the whole knowledge to adapt new situations
through the lenses of self, society, language, and culture (Dirkx, 2006). These are characterized by intense emotional experiences improved by deeply held, sometimes unconscious, images and internalized experiences (Dirkx, 2006). Numerous models of transformational learning exist; some include components such as critical reflection; reflective discourse (Mezirow, 1991); holistic cognition; intuition (Dirkx, 2006; Merriam, Caffarella, & Baumgartner, 2007); developmental transition (Daloz, 1999); and cognitive growth. Transformational learning was defined as learning that causes the participant to go through a mental change process. In other words, transformational learning is learning that causes the learner to perceive, act, react, or perform differently as a result of the integration of information into their personal schemas. Merriam et al., (2007) stated that transformational learning begins with a "disorienting dilemma" (p. 135) and that these experiences 'throw' the learner "off of the normal stride of life" (p. 132). As noted by Dirkx, Mezirow, and Cranton (2006), these experiences may be either invited or unforeseen, and the learner may choose to embrace or turn away from the experience. Yet, the learner recognizes that the experience likely was something important.

The learning model of Illeris (2004a; 2004b) further explored the ideas of transformational learning and scaffolded learning through the integration of the emotive, cognitive, and social factors that influence how the learner perceives and reacts to learning experiences. Illeris (2004a) captured the essence of different confounding factors in the learning processes of individuals, many of which both contribute to and hinder learning. This background knowledge affects how the learner filters information and, thus, impacts the experiential or transformative learning processes. The outcomes of the individual attainment process are always dependent on what has already been acquired.
Ultimately the criteria of this process is of a biological nature and determined by the extensive but now infinite possibilities of the human brain and central nervous system to cope with, structure, retain, and create meaning out of impressions as perceived by our senses (Illeris, 2004b).

Illeris (2004b) used the frames of schematic learning to describe the same phenomena as Dirkx (2006). The Illeris model assumed that, as learning takes place, it is the process by which new information is brought into a mental schema. These processes may manifest differently, but Illeris (2004b) most often cited "assimilation" to describe how a learner links new information to what has already been established and can be applied, as well as "accommodation," which requires the learner to reconstruct old schemas to integrate new information to learning. Illeris (2004b) also cited "personality change" as a circumstance in which learning new information caused the learner to restructure schemes in multiple areas of processes including the cognitive, emotive, and social dimensions.

Transformation has been used in various ways and defined in many contexts throughout the past two decades. What is transformative influence? One of the first theories of transformation came from Jack Mezirow, a Columbia University emeritus professor of adult education. Mezirow’s (1990) evolving transformational theory reviewed three critically important phases: critical reflection, discourse of the reflection, and action. His theory introduced the concept that critical reflection on an individual experience will, in turn, lead to a perspective transformation. The central theme in Mezirow’s theory of transformational learning was the notion of reflection. Once one has
engaged in a new activity, reflection is an instinctive phenomenon, according to Mezirow. Reflection also is a crucial piece in any leadership position.

*Leadership Theory and Practice Fifth Edition* (2001) by Peter Northouse is a textbook widely utilized by many leadership programs throughout the country. He defines transformational leadership as the process that changes and transforms individuals through experience (Northouse, 2001, p.175). In short, transformational leadership is getting others to get on board and motivating them to action or change.

Bass (1994) worked to develop a leadership model that focused on non-leadership, transactional, and transformational leadership. Bass contends that transformational leadership motivates and inspires individuals, and such leadership exceeds society’s expectation of the follower. There are four components to this segment of Bass’ model of leadership: charisma or idealized influence, inspirational motivation, intellectual stimulation, and individual consideration or supportive culture (Northhouse, 2001). It is essential in any leadership position that the leader inspires, influences, stimulates, and becomes considerate of others to either change or improve the organization. Northhouse’s (2001) model merged together with Meizrow’s (1990) theory of transformational perspective utilizing the concept of critical reflection, thus creating a firmer foundation for the concept of transformation.

Michael Woolf (2011) outlines a different perspective on transformation. Woolf contends that transformation is an unrealistic expectation for students who participate in a study abroad experience. Transformation could be a student who knew nothing about Ecuador but traveled and learned a little more about the country. He specifically expresses the desire to clarify and make tangible the term “transformation”, or higher
education institutions will obscure the true purpose of the education abroad field. Likewise, transformational influence using the theory models of Mezirow (1990) and Northouse’s (2001) can be defined and create a more substantial, hardier meaning to provide a foundation to Woolf’s misgivings on the concept of a transformational experience during a study abroad experience. Woolf’s perspective on the meaning of transformation and the unclear, unrealistic expectations of transformational study abroad extends itself to the question of how transformational influence can, if clearly defined, play a pivotal role in the global education of college students.

In her dissertation, Golay (2006) researched the transformational impact of study abroad programs on Florida State University’s students’ attitudes to other cultures. Golay (2006) stated that the goal of the programs was to attain global mindedness. This stage of development would then facilitate continued perspective transformation. Meizrow (1991) affirmed that perspective transformation is achievable in the desirable surroundings. The challenge was to identify, through research, those elements in a study abroad experience that contribute to transformative influence.

Theoretical Foundations for Personality Type

The concept of measuring personality began with understanding the differences of individuals. Sir Francis Galton was a British scholar in the 19th century. He was interested in studying the differences between individuals (Lanyon & Goodstein, 1982), and he hypothesized that a person’s emotions could be measured to identify personality traits (Geer, 1965). Specifically, he studied the measurement of temper, anger, elation, pleasure, and grief. Galton’s work inspired Alfred Binet, Sigmund Freud, Alfred Alter, and Carl Jung.
Frenchman Alfred Binet, worked to develop an instrument to assess personality by measuring the physical head measurements and handwriting. In the early 20th century, Binet was able to associate personality with the early 18th century development of phrenology (Lanyon & Goodstein, 1982). Phrenology is “the basic assumption that the human brain was the locus of control over human behavior”.

In the 1920’s, the debate of personality was emerging throughout Europe. A Swiss psychiatrist, Carl Jung, challenged the theories of his colleagues Sigmund Freud and Alfred Adler. Jung believed in the unconscious personality traits and developed a system of identifying those attributes (Jung, 1971). Freud was studying the human mind in relation to a person’s gender. He had looked at the external factors of nature influencing personality, and Adler looked at the internal nurturing as the influencing factors determining personality. Freud’s philosophy mirrored the work of Charles Darwin’s theory of evolution in the 1920s (Lanyon & Goodstein, 1982). Jung believed there was more to personality than gender. He theorized that personality consisted of three segments: the ego, the personal unconscious, and the collective conscious (Jung & Jaffe, 1962). Jung (1971) stated “the total personality, which though present, cannot be fully known.” (p. 36). Jung suggested that personality was both conscious and unconscious as suggested in Table 1. The conscious part of the brain would be defined as the ego and the unconscious would be the mysterious segment which influences the conscious part of the brain.
Table 1

The Components of Personality

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ego</td>
<td>The center of the individual’s field of consciousness, which provides unity and continuity for the personality.</td>
<td>- Sense of identity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Thinking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Feeling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Remembering</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Functions of daily living</td>
</tr>
<tr>
<td>Personal Unconscious</td>
<td>Contents of the unconscious mind were once conscious and have become repressed; are subliminal perceptions; memories too unimportant to be remembered.</td>
<td>- Repression</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Forgotten</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Not vivid enough to make an impression</td>
</tr>
<tr>
<td>Collective Unconscious</td>
<td>The part of the psyche that retains and transmits the common psychological inheritance of mankind.</td>
<td>- Mystical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Collective experiences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>from past</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Inherited</td>
</tr>
</tbody>
</table>

Looking through this scope, Jung (1923) then developed the foundation for his theory by looking at extrovert and introvert attitudes (Northouse, 2007) and identifying additional and measurable mental activities of perception, conflict, or disturbance. Jung theorized that a personal attitude impacts the way one views the world, analyzes society, and finally makes decisions based on these components (Jung, 1971). He defined eight aspects of personality, both conscious and unconscious; a person will define this type of attitude by perceiving or judging. A person’s perception will lead them to be sensing or to have intuition. A person’s judgment will be based on the use of feelings or thinking through the situation before making a decision (Jung, 1923). Once the four aspects of personality are combined, a profile for the individual will have been identified as displayed in Table 2 (Northouse, 2007).
Table 2

*Carl Jung’s Jungian Dimensions*

<table>
<thead>
<tr>
<th>Carl Jung’s Jungian Dimensions</th>
<th>Carl Jung’s Jungian Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Extroversion versus Introversion</td>
<td>-Sensing versus Intuitive</td>
</tr>
<tr>
<td>Person prefers energy externally or internally</td>
<td>Person prefers to gather information precisely or intuitively</td>
</tr>
<tr>
<td>-Thinking versus Feeling</td>
<td>-Judging versus Perceiving</td>
</tr>
<tr>
<td>Person prefers to make decisions rationally based on emotion or on data</td>
<td>Person prefers to live in an organized way or in a spontaneous way</td>
</tr>
</tbody>
</table>

**Woodworth Psychoneurotic Inventory**

Robert Woodworth was appointed as the chair of a committee designed to use the work of Carl Jung (1923) to develop an instrument to measure a person’s personality. The committee designed a question bank which measured current knowledge stress and neurotic systems. The committee decided to utilize a paper-pencil questionnaire to identify the behaviors and responses of those surveyed. This form of assessment was called the Woodworth Psychoneurotic Inventory and became the first paper-pencil instrument used to measure personality (Lanyon & Goodstein, 1982).

**Myers Briggs Type Indicator**

During the 1940s, Isabel Myers and Katherine Briggs extended Jung’s (1923) work with the purpose of developing an assessment tool that would determine a person’s personality. This instrument is known as the Myers-Briggs Type Indicator (MBTI). The assessment tool has been widely used throughout the past 60 years and is one of the most reliable personality assessments today (Young, 2001). The purpose of the MBTI is to make Jung’s theory applicable. The MBTI is a self-administered assessment with no time limit. This instrument does not have right or wrong answers and it should provide a
person with one’s type of personality. An individual will gain insight on Jung’s theory and become ever cognizant of one’s self (Young, 2001). The results from the MBTI will give the individual a four-letter type of personality based on the four foundations of Jung’s theory. The letters define and identify a person’s individual personality and clarify how each trait works with the others.

Northouse (2007) explains that understanding one’s self is critical to becoming a leader, making decisions, and working with others. The idea that personality can be understood is essential for the concept that higher education can apply this knowledge to educating their students. Northouse (2007) organized the sixteen types by describing the key value for each type of personality as displayed in Table 3.

Table 3

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
<th>Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESTP</td>
<td>Competition</td>
<td>Active, pragmatic, incisive</td>
</tr>
<tr>
<td>ISTP</td>
<td>Efficiency</td>
<td>Active, capable, concrete</td>
</tr>
<tr>
<td>ESFP</td>
<td>Realism</td>
<td>Energetic, inquisitive, encouraging</td>
</tr>
<tr>
<td>ISFP</td>
<td>Cooperation</td>
<td>Flexible, synergetic, pragmatic</td>
</tr>
<tr>
<td>ESTJ</td>
<td>Organization</td>
<td>Methodical, focused, planned</td>
</tr>
<tr>
<td>ISTJ</td>
<td>Productivity</td>
<td>Persistent, logical, practical</td>
</tr>
<tr>
<td>ESFJ</td>
<td>Harmony</td>
<td>Helpful, supportive, practical</td>
</tr>
<tr>
<td>ISFJ</td>
<td>Consideration</td>
<td>Cooperative, committed, understanding</td>
</tr>
<tr>
<td>ENTJ</td>
<td>Command</td>
<td>Analytical, blunt, planned</td>
</tr>
<tr>
<td>INTJ</td>
<td>Effectiveness</td>
<td>Analytical, tough minded, systematic</td>
</tr>
<tr>
<td>ENTP</td>
<td>Knowledge</td>
<td>Assertive, competitive, resourceful</td>
</tr>
<tr>
<td>INTP</td>
<td>Ingenuity</td>
<td>Conceptual, analytical, critical</td>
</tr>
<tr>
<td>ENFJ</td>
<td>Collaboration</td>
<td>Warm, supportive, inclusive</td>
</tr>
<tr>
<td>INFJ</td>
<td>Creativity</td>
<td>Inventive, enthusiastic, expressive</td>
</tr>
<tr>
<td>ENFP</td>
<td>Innovation</td>
<td>Imaginative, enthusiastic</td>
</tr>
<tr>
<td>INFP</td>
<td>Empathy</td>
<td>Passionate, intuitive, creative</td>
</tr>
</tbody>
</table>

The second edition of the MBTI by Isabel Myers and Mary McCaulley (1985) was designed in juxtaposition with the Center for the Applications of Psychological Type.
(CAPT) to clarify and add new data to the first edition. The second edition includes three forms labeled F, G, and AV. Test results were collected for the purpose of determining normative studies of the MBTI second edition over a 12-year period. The internal consistency reliabilities are acceptable for adult populations but somewhat less adequate for younger and less "self-actualized" populations (Myers & McCaulley, 1985). Great effort has been made to ensure acceptable levels of reliability and validity and to relate the implications of the theory to practical applications in many important spheres of society.

The assumptions of the MBTI are atypical of most psychometric measures (Howes, 1977). One assumption is that “true preferences” do exist. However, accurate self-awareness and efficient type development is reflective of this self-report assessment. The type of developmental progression and maturity was reviewed and determined whether the preferences are actually inborn and consistent over time (Myers & McCaulley, 1985).

Another assumption of the instrument is that the types of preferences are dichotomous rather than extremes on a continuum. This is the rationale for a forced-choice format. The choices are of equal value, therefore, giving each participant an opportunity to select the most appropriate response. Items are specific only to the targeted preferences. The alternatives are always presented as forced choices, rather than separately, to avoid selection of both polarities (Myers & McCaulley, 1985).

Harvey (1996) evaluated and summarized results of research on the MBTI’s reliability and validity during the 10 years following the 1985 publication of the second version of the manual. Results of meta-analytic studies, using generally accepted
standards applied to instruments with continuous scores, show the reliabilities of the MBTI continuous scores to be quite good: average overall reliabilities of .84 and .86 for internal consistency measures and .76 for temporal stability. These compare quite well with reliabilities of “even the most well-established and respected trait-based instruments” (p. 24). Respondents with strong preference clarity are classified on retesting the same across the four scales 92% of the time; those of medium preference clarity are classified identically 81% of the time. The issues of type stability for respondents with low preference clarity and need for increased measurement precision at the type cutoffs remain among the most pressing problems related to the MBTI’s reliability. Because the MBTI is based on theory, its validity must be evaluated according to how well it demonstrates relationships and predicts outcomes posited by that theory. Harvey (1996) summarizes the expansion of validation research and increasing empirical evidence in support of the MBTI’s predictive qualities in the decade following publication of the second version of the manual.

**Myers Briggs Type Indicator Research**

According to Quenk and Quenk (2000) in a review of research on the use of the MBTI in counseling and psychotherapy, a national survey of counselors in community-based treatment settings rated the MBTI as the fourth most frequently used standardized test after the Minnesota Multiphasic Personality Inventory (MMPI), Strong Interest Inventory, and Wechsler Adult Intelligence Scale (WAIS-R). Clinical reports provided benefits of type knowledge in counseling and psychotherapy. Myers and McCaulley (1985) gave many insightful principles for understanding the client’s perspective, needs, and motivation according to type. Quenk and Quenk consider preferred models of
counseling and psychotherapy, the relationship of type to supervision in counseling, type characteristics of users of psychological services, practitioner type and the therapeutic process, outcomes, and substance abuse.

The 2nd edition of the Myers Briggs Type Indicator manual (Myers & McCaulley, 1985) discusses type and occupational choices, including correlations with a variety of other personality, attitude, and interest scales. Specifically, the General Occupational Themes of the Strong-Campbell Interest Inventory (SCII) are correlated with the MBTI. Extensive data regarding occupational choice and personality type have been gathered over the past three decades. The data has been compiled into lists of occupations and the types represented to correlate with the career information provided by the U. S. Department of Labor (Myers & McCaulley). Introduction to Type and Careers (Hammer, 1993) is a booklet that guides the use of type for setting goals, gathering information, making contacts, and making decisions in the career exploration process.

Management and leadership industries found attempts to predict behavior from personality type models such as the Myers Briggs Type Indicator to produce mixed results and conclusions (Walck, 1996). All four preferences of personality type appear to have some impact on all steps in the decision-making process. However, evidence does not support the idea that leadership style is a function of a particular type. Some evidence is available on STJ “managerial culture,” which all types in management learn to value. Despite disappointing empirical results, for which Walck faults difficulties in methodology of research, she remains optimistic that new research paradigms will allow type to have a significant impact on management and leadership practice.
Ashbridge Business School in the United Kingdom conducted a longitudinal study utilizing the 2nd edition MBTI to determine managerial similarities and differences based on type (Carr, Curd, Dent, Davada, & Piper, 2011). The 5000 subjects were all participants in management development programs at Ashridge from 2000 to 2010, with the management levels ranging from junior manager to senior executive and chief executive. The participants were from 116 different countries, with 52% of the total population coming from the UK. Nearly 75% of the sample population was male. The largest individual industry sectors are manufacturing and public sector workers, which accounted for nearly half of the sample population. The model type for Ashridge’s management population is ESTJ (22.5%), followed by ENTJ, ISTJ and ENTP. The least frequent types are ISFP, INFJ, ESFP, and INFP (Carr et al., 2011).

The results of the Ashbridge study demonstrate the under-representation of people with a Feeling preference in management (Carr et al., 2011). The gender variance typically reflects a difference in the Thinking/Feeling preference; however, in this study women had a stronger preference for Thinking than Feeling. This is the same pattern that male executives display. The research indicated that some significant differences were found in the types of management compared to the general UK population. The findings are intriguing, and further research is needed to identify gender similarities in managerial positions of personality type and cultural implications of managerial style preferences among gender differences.

The MBTI has been used extensively in education. Myers and McCaulley (1985) discussed implications of type for different levels of student aptitude, initiative, and achievement. Type differences in learning, teaching, and administrative styles are also
discussed, with many helpful pointers in applying type knowledge to teaching and administrative methods to maximize student learning. People Types and Tiger Stripes introduced teachers to type theory and its use in the classroom (Lawrence, 1993). Learner characteristics consistently confirm predictions of type theory. More research is needed in this area. The MBTI also has been applied to current issues in education such as culture and gender, vocational education, nontraditional education, and computer-assisted instruction (DiTiberio, 1996).

As the modern world moves toward a more global society, interest in multicultural use of the MBTI has exploded. Both Jung (1923) and Myers and McCaulley (1985) felt that psychological type is universal. If so, the implications are significant relative to promoting understanding between cultures and increasing appreciation of diversity within a culture. However, the MBTI has been translated and not utilized as a mechanism for understanding a person’s global perspective. Consulting Psychological Press currently lists 14 commercial translations and 15 translations being tested as research instruments (Kirby & Barger, 1996). Research issues include the investigation of whole type multicultural as well as individual preferences and the dynamics of interaction of individuals and their cultures. Though these are difficult challenges, the rewards promise to be great (Kirby & Barger, 1996).

Conclusions

The desire to globally and culturally educate our students is one of the most pressing agendas in our educational systems. The challenge facing all segments of education is the process of understanding, developing, and then implementing practices which foster a globally minded citizen.
In order to achieve the goal of creating a culturally sensitive society, higher education must first be able to measure the current attitudes of our population. Hett’s (1993) assessment indicated that individuals who had exposure to other cultures through a study abroad experience were more culturally aware, demonstrated a decrease in ethnocentric behavior, and developed a level of interconnectedness. Zhai and Scheer (2002) discovered that a student did not have to travel abroad in order to become a globally minded citizen. His research indicated exposure to people from various cultures increased global mindedness. Reflective experiences, whether an individual has traveled abroad or been exposed to various cultures, leads to transformation of an individual’s personality and perception of the world. Mezirow’s (1991) social cognitive theory focusing on the steps to create transformation suggested that reflective exercises, environment, and exposure could be essential to evolving a globally minded population.

Carl Jung (1923) believed personality was significant in understanding behavior which led Isabel Myers and Katherine Briggs (Myers & McCaulley, 1985) to create an instrument which measured personality and assigned key significant attributes to each type of personality. The scales in which a person can be identified indicate a type of behavioral pattern. Understanding these scales, and the behavior associated with them, can be instrumental in learning how to educate these types of personalities.

Post-secondary institutions agree on the necessity to measure their students’ current status of global mindedness and determine whether there are correlations of personality or demographic factors which impact global mindedness. If any correlations exist, the next course of action would be to determine how higher education can implement this knowledge into instruction. The models of transformation and personality
can be instrumental in aiding with the development of a new model which educates students into becoming more culturally sensitive and globally minded.
CHAPTER III: METHODOLOGY

This study was designed to investigate and evaluate global mindedness of college freshman in relation to their type of personality. This chapter includes research questions, design, procedures, instruments, limitations, and the protection of the participants in the study.

The research will provide an understanding of the current world views on the student population. Universities, institutions, and organizations that develop and provide these types of experiences for students can use this research to understand the experiences of their student body and make changes or adaptations as needed to obtain the desired outcomes and educational goals.

The purpose of this study was to analyze freshman students’ global mindedness related to their personality traits and certain demographic factors, particularly, the types of personality that impacts each of the five global mindedness subscales. What relationships exist among various demographic factors and global mindedness with specific focus on gender, population, 1st generation college student, and socio economic status (SES)? The research includes several aspects. First, a global mindedness survey was administered to 424 freshmen to determine their global mindedness. Simultaneously, a Myers Briggs typology questionnaire was given to determine if personality can be used to predict students’ global mindedness. An analysis was also conducted on the relationships among various demographics and global mindedness. Last, multiple regression analyses were conducted to provide insight into patterns and themes of freshman students’ global mindedness compared to their personality type and certain demographic factors.
Research Questions

1. What are the relationships of personality and demographics on global mindedness of first-year college students?

2. What are the implications and how can higher education utilize this knowledge?

Research Design

This study had no control group, no intervention, and is considered a non-experimental quantitative descriptive study. The research was intended to determine if personality has a significant influence on the five subscales of global mindedness and the overall total global mindedness. It also was intended to determine if any demographic factors influence global mindedness. The researcher sought to determine the current status of global mindedness among the college freshman population through participants’ self-report and to determine if personality was related to global mindedness through a personality type indicator instrument.

This survey research was conducted for the purpose of sampling attitudes, perceptions, and opinions (Wiersma & Jurs, 2005). The surveys were distributed and collected on the same day and represent a cross-sectional survey design. The population for this study included freshman college students from three campuses of a four-year public master’s large institution located in south central United States (N=5067). With a 2011-2012 freshman population of 5067, a confidence interval of 5 and a confidence level of 95%, the needed sample size was 357. Each of the three campuses teaches freshman level general education courses, allowing the researcher to use class time to administer the paper-pencil surveys. Based on the population of freshmen, a sample was
given to 424 students, and 410 had sufficient responses to be included in the results, indicating a 97% response rate.

**Research Procedures**

This section will describe the procedures followed by obtaining permission to conduct this study from the Institutional Review Board (IRB) as well as the instruments and the collection of data.

**IRB Approval**

Permission was granted through the Institutional Review Board of Western Kentucky University (WKU IRB HS-313093-2). The application and approval letter from the IRB can be found in Appendix A.

**Instrumentation**

Two instruments were utilized throughout this study: The Global Mindedness Scale and the adapted version of Myers-Briggs Typology instrument, MBTI 2nd edition, along with a demographic questionnaire.

Jane Hett (1993) developed the first instrument to measure global mindedness for her doctoral dissertation. Since the development of the scale, this instrument has been widely used to measure the impact of different variables on participant attitudes toward global mindedness. Hett’s Global Mindedness Scale (Hett, 1993) is a 30-item question survey measured by a Likert type scale. The 5-point scale ranges from strongly agree to strongly disagree, and the mean score of each subscale reflects the level of global mindedness. The instrument was designed to equate higher mean scores equates to higher levels of global mindedness. Reliability and validity of the instrument were measured through factor analysis, Cronbach’s Alpha, correlation, and analysis of
The internal reliability of this instrument was .96 using Cronbach’s coefficient alpha (Hett, 1993). Alpha subscales ranged from .70 to .79. A team of four judges established a Content Validity Index (CVI). The CVI for the overall tool was .88 and the five subscales of the instrument proved correlational significance at a 0.001 level (Hett, 1993).

The second instrument administered was an adapted version of the Myers-Briggs Typology Instrument, MBTI 2nd edition. This instrument has been the subject of much debate on its validity and reliability based on the self-reporting of the individuals. However, the revised version has an internal consistency of .90, and the validity of the instrument has been analyzed through factor analysis and correlational significance. In a comprehensive study of the MBTI 2nd edition, it was shown by Gardener and Martinko (1996) to have validity despite the controversy.

The second edition of the MBTI by Isabel Myers and Mary McCaulley (1985) was designed in juxtaposition with the Center for the Applications of Psychological Type (CAPT) to clarify and add new data to the first edition. The second edition includes three forms labeled F, G, and AV. Test results were collected for the purpose of normative studies of the MBTI 2nd edition over a 12-year period. The internal consistency reliabilities were acceptable for adult populations but somewhat less adequate for younger and less "self-actualized" populations (Myers & McCaulley, 1985). Test-retest measured are complicated by the possibility (indeed, probability) of evolution in type preferences as time passed. A study by Howes (1977) indicated that mood fluctuations did not significantly affect test-retest reliability of the MBTI 2nd edition. The validity
studies undertaken by the developers of the MBTI second edition have focused primarily upon construct and criterion related measures.

The assumptions of the MBTI are not typical of most psychometric measures (Howes, 1977). One assumption is that “true preferences” really exist. However, accurate self-awareness and efficient type development is reflective of this self-report assessment. The personality type developmental progression and maturity was reviewed and determined that the preferences are actually inborn and consistent over time (Myers & McCaulley, 1985). Another assumption of the second edition MBTI is that participants can self-report directly or indirectly, preferences that interact to form type. The meaning of questions was less important in item selection than indication of the preference that influenced the response. Thus, seemingly trivial questions about simple surface behaviors were designed to tap into underlying preferences that might not be directly elicited. Attempts were made to make the alternatives of each item equally appealing to the appropriate types, resulting in responses that may be opposed psychologically but not logically.

Another assumption of the instrument is that the type preferences are dichotomous, rather than extremes on a continuum. This is the rationale for a forced-choice format. The choices are of equal value, therefore, giving each participant an opportunity to select the most appropriate response. Items are specific only to the targeted preferences. The alternatives are always presented as forced choices, rather than separately, to avoid selection of both polarities (Myers & McCaulley, 1985).
Process

Utilizing WKU Topnet software, the researcher contacted faculty who taught a majority of freshman level courses across multiple disciplines as well as faculty who taught mandatory university freshman experience courses and general education courses. The faculty members were given a brief description of the study, consent letter, and a copy of the surveys prior to agreeing to the administration of the instruments during their class periods.

Faculty from the three campuses that teach freshman courses were contacted to determine if they would be interested in their students participating in this survey during class time. Out of the 42 that were contacted, 35 agreed via email to allow class time for the freshmen to participate in this study. Student participants were those at a comprehensive south central university located in the United States who were over the age of 18 and first-year college students. The students were not permitted to take the survey more than once to maintain the integrity of the study. There were 5,067 freshman students enrolled at this comprehensive university. Four hundred twenty-four surveys were administered to first year students. Of the 424 administered, 14 had insufficient data and were not included in this research project, thus, giving a 97% response rate. The students were given a paper-pencil version of the two surveys, Global Mindedness Scale, and the 2\textsuperscript{nd} Version of the Myers-Briggs Typology Instrument, along with a demographic survey.

On the day of administering the surveys, the students received a consent letter, a brief description of the surveys, the demographic survey, the Global mindedness scale, and an adapted version of the Myers-Brigg Typology instrument, MBTI 2\textsuperscript{nd} edition, to
complete. The data were collected and recorded into Excel® by a research assistant, who was an honors teaching assistant. Informed written consent was obtained prior to the handling of the data. The assistant was trained by the researcher in order to ensure confidentiality of the research. The assigned numbering and coding of each survey ensured that neither the researcher nor the assistant saw the student names. The researcher worked with a methodologist to import the data from Excel® into the SAS® computer software program. Descriptive statistics were utilized in this study to determine the global mindedness of the student freshmen population. Frequency tables were used to establish the eight types of personality along with first generation, socio-economic status, and gender. County population statistics were utilized from Census 2012 to determine rurality in relation to global mindedness and personality. However, a continuous variable yielded more reliable results. Multiple regressions were used to determine if there were any predictors of the level of global mindedness based on personality type and certain demographic factors. Once the surveys were administered and collected, they were recorded in Excel®, placed in numerical order, and locked in a secure filing cabinet.

Summary

The purpose of this study was to determine whether relationships existed between personality, demographics, and global mindedness. This chapter discussed the methodology of the study by looking at two empirical instruments to measure students’ global mindedness and the relationship of personality. The reliability and validity of the instruments were described. IRB was provided the description of the sample population, administration of the two instruments, data collection, and input of the data.
CHAPTER IV: RESULTS

This study analyzed the relationship between college freshman students’ global mindedness and personality traits and certain demographic factors, particularly, what types of personality impact each of the five global mindedness subscales. What demographic factors influence global mindedness with specific focus on gender, population, 1st generation college student, and socioeconomic status (SES)? It has become imperative that higher education understand and create a baseline of their students’ views of the world, determine whether certain factors influence those views, and utilize the knowledge to reach the mission and vision of many academic institutions throughout the world to internationalize their institutions.

This study is significant because internationalization is the primary theme on many college campuses. One method that receives tremendous attention is study abroad programs receive tremendous attention. Unfortunately, the majority of the students attending college are those who have not travelled abroad. Universities are focusing their resources and energy on internationalizing their campuses and promoting study abroad. The issue remains that post-secondary institutions must globally educate all students to ensure the notion of becoming a global citizen. A more conclusive overview of the global mindedness of college freshmen and the possible implications that impact this view is necessary in determining the pedagogies of internationalizing curriculum, faculty, students, and an entire culture.

The Global Mindedness Scale (See Appendix D) was chosen to measure freshman students’ cultural adaptability and views of the world. The scale was comprised of 30 Likert items which rated students’ responses to the five subscales of global mindedness.
The responses ranged from one to five, strongly agree to strongly disagree, or vice versa depending on the question. Participants were scored and each subscore summed to derive a global mindedness score. A higher score indicated a higher level of global-mindedness. The range of total global mindedness scores was 30 to 150. The scale reflected five dimensions of global mindedness, and the higher sums for the subscales indicated a higher level of the individual dimension. The subscales were responsibility, cultural pluralism, efficacy, global centrism, and interconnectedness.

The Myers-Brigg Personality Type instrument, MBTI (See Appendix E), was chosen to measure personality types. The scale was comprised of 40 statements in which the student chose one of the two statements with which they agreed the most. The sum of each of the eight subscales indicated a particular type of personality, and the eight personality types were categorized into four segments throughout the questionnaire. The higher the score in the subcategory reflected a person’s type of personality based on expression, perception, judgment, and intuition. The types of personality reflected were extravert versus introvert, sensing versus intuition, thinking versus feeling; and perceiving versus judging.

A demographic profile accompanied these two surveys. The 20-question survey asked respondents the following information: gender, first-generation college student, socio-economic status based on Pell Grant eligibility, and population based on participant’s high school. This survey was used in conjunction with the other surveys and was analyzed in relation to global mindedness.

The surveys were guided by two research questions. Are there significant factors that influence a person’s global mindedness? Research question 1 was designed to
identify what relationships personality and demographics have on global mindedness of freshman students at a four-year public institution.

RQ1: What are the relationships among personality and demographics on global mindedness of first-year college students?

As higher education begins to foster a spirit of intercultural academic institutions, what is the next process in immersing all students into becoming global citizens?

Research question 2 was designed to address the implications of research question 1 and to begin the process of utilizing this knowledge to increase global awareness of freshmen on a university campus.

RQ2: What are the implications and how can higher education utilize this knowledge?

Findings Related to Research Question 1

Research question 1 asks: What are the relationships of personality and demographics on global mindedness of first-year college students?

Each participant in this study completed a demographic survey after the Global Mindedness Survey and the Myers Briggs Questionnaire. The demographic information ranged from gender, county populations, first-generation college students, and Pell eligibility as a proxy for socio-economic status. The mean county population for the sample was 110,328; standard deviation was 242,977; and the minimum county population was 572 and the maximum was 2,695,598. Demographic statistics for the sample and population are represented in Table 4. T-tests were conducted to determine whether significant differences existed between sample population in terms of gender, Pell eligibility, and first- generation status. No significant differences were found in
gender between the sample and the population, \( t (407) = -1.612, p < .05 \). However, the Pell eligible student proportion was greater than the sample \( t (384) = 2.371, p < .05 \). Additionally, the greater proportion of first-generation college students in the sample was greater than the population, \( t (407) = 4.858, p < .05 \).

Table 4

**Descriptive Statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample</th>
<th></th>
<th>Population</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
<td>5067</td>
<td>100</td>
</tr>
<tr>
<td>Female</td>
<td>207</td>
<td>51</td>
<td>2775</td>
<td>55</td>
</tr>
<tr>
<td>Pell Eligible</td>
<td>166</td>
<td>43</td>
<td>2493</td>
<td>49</td>
</tr>
<tr>
<td>First Generation College Student</td>
<td>216</td>
<td>53</td>
<td>2093</td>
<td>41</td>
</tr>
</tbody>
</table>

The data were analyzed using SAS computer software. An alpha level of .05 was used for all statistical analyses. The means are represented in Table 5 for the global mindedness survey. Participants had a mean overall global mindedness score of 103.4 and ranged from 56 to 144. The distribution of the overall global mindedness score is displayed in Figure 1. Responsibility subscale had a mean score of 24.2 and ranged from 8 to 35, as displayed in Figure 2. Cultural Pluralism had a mean score of 29.6 and represented the highest subscale mean of the five categories of global mindedness and is displayed in Figure 3. The range for the cultural pluralism subscale was 16 to 40. At a mean score of 17.4 and a range of 7 to 25, the efficacy subscale is displayed in Figure 4. Global Centrism represented the lowest subscale mean of 14.8, with a range of 7 to 25, as
displayed in Figure 5. The last scale represented in Table 5 is interconnectedness. The mean score was 17.4 and ranged from 8 to 25, which is displayed in Figure 6.

Table 5

*Descriptive Statistics of the Global Mindedness Scale*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Global Mindedness</td>
<td>405</td>
<td>103.4</td>
<td>13.7</td>
<td>56</td>
<td>144</td>
</tr>
<tr>
<td>Responsibility</td>
<td>408</td>
<td>24.2</td>
<td>4.7</td>
<td>8</td>
<td>35</td>
</tr>
<tr>
<td>Cultural Pluralism</td>
<td>409</td>
<td>29.6</td>
<td>4.6</td>
<td>16</td>
<td>40</td>
</tr>
<tr>
<td>Efficacy</td>
<td>410</td>
<td>17.4</td>
<td>3.3</td>
<td>7</td>
<td>25</td>
</tr>
<tr>
<td>Global Centrism</td>
<td>410</td>
<td>14.8</td>
<td>3.2</td>
<td>7</td>
<td>25</td>
</tr>
<tr>
<td>Interconnectedness</td>
<td>408</td>
<td>17.4</td>
<td>3.0</td>
<td>8</td>
<td>25</td>
</tr>
</tbody>
</table>
Figure 1. Histogram of Total Global Mindedness Scores.

Figure 2. Histogram of Responsibility subscale of GMS.
Figure 3. Histogram of Cultural Pluralism subscale of GMS.

Figure 4. Histogram of Efficacy subscale of GMS.
Figure 5. Histogram of Global Centrism subscale of GMS.

Figure 6. Histogram of Interconnectedness subscale of GMS.
The second portion of the survey was the Myers Briggs Typology Indicator. The participants completed the 20 item questionnaire and selected the response that most closely resembled their personality. The means and ranges are represented in Table 6 for the 2nd edition Myers Briggs Typology Indicator.

Table 6

*Descriptive Statistics for the 2nd Edition of the Myers-Briggs Type Indicator*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extravert</td>
<td>410</td>
<td>2.90</td>
<td>1.63</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Introvert</td>
<td>410</td>
<td>2.09</td>
<td>1.63</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Sensing</td>
<td>410</td>
<td>2.42</td>
<td>1.49</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Intuition</td>
<td>410</td>
<td>2.57</td>
<td>1.49</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Thinking</td>
<td>410</td>
<td>2.26</td>
<td>1.66</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Feeling</td>
<td>410</td>
<td>2.72</td>
<td>1.65</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Judging</td>
<td>410</td>
<td>1.92</td>
<td>1.62</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Perceiving</td>
<td>410</td>
<td>3.07</td>
<td>1.61</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

A regression model was developed using the Myers-Briggs typology instrument and demographic variables to predict responsibility as a subscore of the Total GMS scale. The scores for extravert, sensing, thinking, and judging, along with Pell eligibility, first-generation status, female status, and county population were the independent variables used to predict the responsibility subscore and are represented in Table 7. The regression model for the responsibility subscale of GMS was significant,
$R^2 = .21$, $F(8,364) = 12.13$, $p < .0001$. This pattern suggested that scoring higher on the extravert and judging indicators of the MBTI contributed positively to the responsibility subscale of global mindedness, while scoring higher on the sensing and thinking indicators were negatively related. Pell eligibility, first generation status, gender, and county population were not significant contributors to the responsibility subscale score.

Table 7

*Multiple Regressions for Responsibility Subscale of GMS*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>SE $B$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extravert</td>
<td>0.46**</td>
<td>0.14</td>
</tr>
<tr>
<td>Sensing</td>
<td>-0.65**</td>
<td>0.16</td>
</tr>
<tr>
<td>Thinking</td>
<td>-0.81**</td>
<td>0.15</td>
</tr>
<tr>
<td>Judging</td>
<td>0.31*</td>
<td>0.14</td>
</tr>
<tr>
<td>Pell Grant Eligible</td>
<td>0.39</td>
<td>0.47</td>
</tr>
<tr>
<td>First-Generation College</td>
<td>-0.26</td>
<td>0.47</td>
</tr>
<tr>
<td>Female</td>
<td>0.89</td>
<td>0.48</td>
</tr>
<tr>
<td>Population</td>
<td>0.29</td>
<td>1.10</td>
</tr>
</tbody>
</table>

*Note. $R^2 = .21$ ($p < .01$); * $p < .05$; ** $p < .01$*

To predict the cultural pluralism subscore of the Total GMS, a regression model was developed using the Myers-Briggs typology instrument and demographic variables. The scores for extravert, sensing, thinking, and judging, along with Pell eligibility, first-generation status, female status, and county population were the independent variables
used to predict cultural pluralism and are represented in Table 8. The regression model for the cultural pluralism subscale of GMS was significant,

\[ R^2 = .20, F(8,365) = 11.30, p < .0001. \]

This pattern indicated that Pell grant eligibility contributed positively to the cultural pluralism subscale of global mindedness, while scoring higher on the sensing and thinking indicators of the MBTI are negatively related. Extravert and judging indicators of the MBTI were insignificant contributors to the cultural pluralism subscale score. First-generation status, gender, and county population were not significant contributors to the cultural pluralism subscale score.

Table 8

**Multiple Regressions for Cultural Pluralism Subscale of GMS**

<table>
<thead>
<tr>
<th>Variable</th>
<th>( B )</th>
<th>SE ( B )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extravert</td>
<td>0.10</td>
<td>0.14</td>
</tr>
<tr>
<td>Sensing</td>
<td>-0.86**</td>
<td>0.16</td>
</tr>
<tr>
<td>Thinking</td>
<td>-0.47**</td>
<td>0.15</td>
</tr>
<tr>
<td>Judging</td>
<td>0.08</td>
<td>0.14</td>
</tr>
<tr>
<td>Pell Grant Eligible</td>
<td>1.92**</td>
<td>0.47</td>
</tr>
<tr>
<td>First-Generation College</td>
<td>-0.62</td>
<td>0.47</td>
</tr>
<tr>
<td>Female</td>
<td>0.67</td>
<td>0.48</td>
</tr>
<tr>
<td>Population</td>
<td>-1.58</td>
<td>1.10</td>
</tr>
</tbody>
</table>

*Note. \( R^2 = .20 \) \( p < .01 \); * \( p < .05 \); ** \( p < .01 \)

Table 9 shows the results of the regression model developed to predict the efficacy subscale of the Total GMSS using the Myers Briggs Typology instrument and
demographic variables. The regression model for the efficacy subscale of GMS was significant, $R^2 = .21$, $F(8,366) = 12.32$, $p < .0001$. This pattern indicated that scoring higher on the extravert indicator of the MBTI contributed positively to the efficacy subscale of global mindedness, while scoring higher on the sensing and thinking indicators of the MBTI were negatively related. Pell eligibility and gender contributed positively to the efficacy subscale of GMS. Judging indicator of the MBTI, first-generation status, and county population were not significant contributors to the efficacy subscale score.

Table 9

Multiple Regressions for Efficacy subscale of GMS

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extravert</td>
<td>0.23**</td>
<td>0.10</td>
</tr>
<tr>
<td>Sensing</td>
<td>-0.64**</td>
<td>0.11</td>
</tr>
<tr>
<td>Thinking</td>
<td>-0.29**</td>
<td>0.10</td>
</tr>
<tr>
<td>Judging</td>
<td>0.15</td>
<td>0.10</td>
</tr>
<tr>
<td>Pell Grant Eligible</td>
<td>0.78**</td>
<td>0.83</td>
</tr>
<tr>
<td>First-Generation College</td>
<td>0.38</td>
<td>0.33</td>
</tr>
<tr>
<td>Female</td>
<td>0.68*</td>
<td>0.33</td>
</tr>
<tr>
<td>Population</td>
<td>-0.68</td>
<td>0.76</td>
</tr>
</tbody>
</table>

Note. $R^2 = .21$ ($p < .01$); * $p < .05$; ** $p < .01$

To predict global centrism, a regression model was developed using the Myers-Briggs typology instrument and demographic variables. The results are represented in
Table 10. The regression model for the global centrism subscale of GMS was significant, $R^2 = .21$, $F(8,366) = 5.72$, $p < .0001$. This pattern indicated that scoring higher on the extravert, sensing, and judging indicators of the MBTI contributed negatively to the global centrism subscale of global mindedness, while being Pell eligible was positively related. The thinking indicator of the MBTI, first-generation status, gender, and county population were not significant contributors to the global centrism subscale score.

Table 10

*Multiple Regressions for Global Centrism Subscale of GMS*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extravert</td>
<td>-0.26**</td>
<td>0.10</td>
</tr>
<tr>
<td>Sensing</td>
<td>-0.47**</td>
<td>0.11</td>
</tr>
<tr>
<td>Thinking</td>
<td>-0.14</td>
<td>0.11</td>
</tr>
<tr>
<td>Judging</td>
<td>-0.22*</td>
<td>0.10</td>
</tr>
<tr>
<td>Pell Grant Eligible</td>
<td>0.90**</td>
<td>0.34</td>
</tr>
<tr>
<td>First-Generation College</td>
<td>0.07</td>
<td>0.34</td>
</tr>
<tr>
<td>Female</td>
<td>-0.07</td>
<td>0.35</td>
</tr>
<tr>
<td>Population</td>
<td>-0.45</td>
<td>0.81</td>
</tr>
</tbody>
</table>

*Note. $R^2 = .11$ ($p < .01$); * $p < .05$; ** $p < .01$*

To predict interconnectedness, a regression model was developed using the Myers-Briggs typology instrument and demographic variables. The scores for extravert, sensing, thinking, and judging, along with Pell eligibility, first-generation status, female status and county population were the independent variables used to predict
interconnectedness and are represented in Table 11. The regression model for the interconnectedness subscale of GMS was significant, $R^2 = .22$, $F(8,364) = 12.66$, $p < .0001$. This pattern indicated that scoring higher on the extravert indicator of the MBTI contributed positively to the interconnectedness subscale of global mindedness, while scoring higher on the sensing and thinking indicators of the MBTI were negatively related. The thinking indicator of the MBTI, Pell eligibility, gender, first-generation status, and county population were insignificant contributors to the interconnectedness subscale score.

Table 11

*Multiple Regressions for Interconnectedness Subscale of GMS*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>SE $B$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extravert</td>
<td>0.27**</td>
<td>0.09</td>
</tr>
<tr>
<td>Sensing</td>
<td>-0.57**</td>
<td>0.10</td>
</tr>
<tr>
<td>Thinking</td>
<td>-0.40**</td>
<td>0.09</td>
</tr>
<tr>
<td>Judging</td>
<td>-0.00</td>
<td>0.09</td>
</tr>
<tr>
<td>Pell Grant Eligible</td>
<td>0.43</td>
<td>0.30</td>
</tr>
<tr>
<td>First-Generation College</td>
<td>0.34</td>
<td>0.30</td>
</tr>
<tr>
<td>Female</td>
<td>-0.10</td>
<td>0.30</td>
</tr>
<tr>
<td>Population</td>
<td>0.42</td>
<td>0.69</td>
</tr>
</tbody>
</table>

*Note. $R^2 = .22$ ($p < .01$); * $p < .05$; ** $p < .01$*
To predict total global mindedness, a regression model was developed using the Myers-Briggs typology instrument and demographic variables. The results are represented in Table 12. The regression model for total GMS was significant, $R^2 = .30$, $F(8,361) = 19.62, p < .0001$. This pattern indicated that scoring higher on the extravert indicator of the MBTI contributed positively to global mindedness, while scoring higher on the sensing and thinking indicators of the MBTI were negatively related. Pell eligibility contributed positively to the total global mindedness score, while the judging indicator of MBTI, gender, first-generation status, and county population were not significant contributors to the total global mindedness score.

Table 12

*Multiple Regressions for Global Mindedness Scale*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>SE $B$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extravert</td>
<td>0.77*</td>
<td>0.38</td>
</tr>
<tr>
<td>Sensing</td>
<td>-3.20**</td>
<td>0.44</td>
</tr>
<tr>
<td>Thinking</td>
<td>-2.12**</td>
<td>0.41</td>
</tr>
<tr>
<td>Judging</td>
<td>0.32</td>
<td>0.40</td>
</tr>
<tr>
<td>Pell Grant Eligible</td>
<td>4.37**</td>
<td>1.32</td>
</tr>
<tr>
<td>First-Generation College</td>
<td>0.03</td>
<td>1.31</td>
</tr>
<tr>
<td>Female</td>
<td>2.16</td>
<td>1.34</td>
</tr>
<tr>
<td>Population</td>
<td>-2.15</td>
<td>3.05</td>
</tr>
</tbody>
</table>

*Note. $R^2 = .30 (p < .01); * p < .05; ** p < .01*
Findings of Research Question 2

Research Question 2 asks: What are the implications and how can higher education utilize this knowledge?

Results from research question 1 indicated personality contributed significantly to the total global mindedness score and the five subscales. Personality types and demographics in the regression analysis indicated positive and negative predictive contributing factors. First-generation status and county population were significant in neither the five subscales nor the total global mindedness score. A normal distribution was represented in the GMS scale. The desired goal for a university would be that the participants had a skewed distribution to the right by the end of their college career. Most participants had average scores in the subscales of global mindedness and that was reflected in the total global mindedness score as well. Pell grant eligibility was a positive significant contributing factor in the total global mindedness score, as well as the global centrism, efficacy, and the cultural pluralism subscales. Gender was positively significant in the efficacy subscale.

The results indicate there is significance in personality, Pell eligibility, and gender. Therefore, how can higher education utilize this information? The Myers Briggs foundation has developed pedagogies in type and learning. Since the research has indicated positive and negative contributing factors to global mindedness, the merger of the personality type strategies along with cultural sensitivity models could impact students’ global mindedness. These strategies could be integrated with international curriculum development at any comprehensive university.
Conclusions

This chapter represented quantitative results of this study regarding the relationship between global mindedness, personality, and demographic factors. Descriptive statistics were represented in the global mindedness scale, personality, and demographics. Correlations between the five subscales of global mindedness, the eight types of personality, and demographics indicated there was significance amongst the factors.

Results of the multiple regressions analysis were discussed in research question 1. The five subscales of global mindedness analysis indicated significance of specific personality types, both positively and negatively contributing, and the only two significant demographic indicators were Pell grant eligibility and gender.
CHAPTER V: CONCLUSION

The focus of this study was to analyze college freshmen’s global mindedness related to their personality traits and certain demographic factors. International education has become the focus for many higher education systems, and the demand for tolerant acceptance and efficacy in our society has become the forerunner in school dynamics. With the ever changing face of our market systems, trade policies, and innovative technology, it is pertinent that our society to become better educated and culturally sensitive. To be successful in the work force, one must enhance his or her global literacy and avoid cultural ethnocentrism.

This study is significant because it adds to the body of knowledge regarding the contributing factors that impact global mindedness. It builds on the existing qualitative and quantitative research that reviews the impact of gender, socio-economic status, short-term and long-term study abroad, and cultural sensitivity among college students on global mindedness. This study provides evidence that personality type of the MBTI is a significant contributing factor for global mindedness, while Pell eligibility is the most prominent demographic factor contributing significantly to global mindedness. Gender was significant only in the efficacy subscale of global mindedness. Research has indicated that exposure to various cultures enhances global mindedness. Understanding how each personality contributes to GMS is essential in the strategies to educate individuals about varying cultures. The eight personality types have different methods of dissecting information, absorbing, and reflecting. For example, in this study sensing and thinking personality type significantly contributed negatively to the overall GMS and to the individual subscales. A sensing type needs details. This personality type, along with
thinking, needs time to assimilate into a new culture and will delay action until all the necessary data have been provided. This does not mean they cannot become more culturally attuned. It simply refers to the notion that these individuals will need multiple cross-cultural experiences prior to enhancing their global mindedness. Interestingly, demographics did not play a large role overall in this study. In both the Anderson et al., (2004) study and the Bandura (1989) study, demographics played a large role in the results of cross cultural awareness. In this study, gender was only significant in the efficacy subscale, and Pell eligibility (SES) was significant in three of the subscales and total GMS. Low socio-economic status individuals are faced with a complexity of issues, and change is inevitable. Thus, one could assume from this research that an individual who is Pell eligible would integrate, adapt, and accept other cultures despite Waks’ (2006) research that indicated middle and lower class society do not integrate with different cultures.

Universities, institutions, and organizations that wish to enhance global mindedness will need to develop and provide international experiences such as short-term and long-term study abroad opportunities, international curriculum such as cultural diversity courses, and cultural events for students. Comprehensive universities can use this research to understand the experiences of their student body and make changes or adaptations as needed to obtain the desired outcomes and educational goals.

The research questions guiding this study were:

RQ1: What are the relationships and influence of personality and demographics on global mindedness of first-year college students?
RQ2: What are the implications and how can higher education utilize this knowledge?

**Discussion of the Findings**

The following section discusses the results of this study.

*Research Question 1.* This study determined the current level of global mindedness of college freshmen at a four-year public master’s large institution located in south central United States. Global mindedness represents the notion of making decisions which are in the best interest of global standards compared to what is in the best interest of a person’s particular culture. This can be quite a challenge when today’s culture is consistently focused on self-interest. A survey was utilized to measure the attitudes and perceptions of freshman college students through a questionnaire and funneled those responses through five subscale areas. The total global mindedness score ranged from a minimum score of 56/150 and a maximum of 144/150. The histogram of total global mindedness displayed the majority of response scores were concentrated around the 95 to 105 point. However, the minimum score for total global mindedness was 30, while the lowest participant score was 56. The extremely low score indicates the necessity of working with an individual’s cultural sensitivity during the college experience. The five subscales had a range of scores from extremely low to high, while the majority of responses were average. The results indicate a need to enhance college students’ global mindedness.

The next step in this process was to determine whether a correlation was found between personality and the five subscales of global mindedness. The analysis indicated a significant correlation between types of personality and global mindedness. The
demographic factors were analyzed and determined not to be a significant factor, except Pell eligibility and gender in certain subscales.

The regression analysis found that all five subscales had some level of positive and negative significant predictor personality types and demographic factors. The first regression analysis indicated scoring higher on the extravert and judging indicators of the MBTI contributed positively to the responsibility subscale of global mindedness and explained 21% of the variance. Responsibility subscale indicates an individual’s moral obligation to provide assistance for those in need. Therefore, the higher a participant’s extravert score, the higher the participant scored on the responsibility subscale for global mindedness. While scoring higher on the sensing and thinking indicators of the MBTI are negatively related to the subscale, Pell eligibility, first-generation status, gender, and county population were not significant contributors to the responsibility subscale score.

There may be several reasons that the demographic factors were not significant. The indicators for predicting responsibility may not have been a significant component associated with a person’s socio-economic status, first-generation college status, gender, or county populations. The negative correlation with sensing and thinking could indicate that an individual’s type does not have particular affiliation with global responsibility. Both the rational thinking individual who uses data to make decisions and the methodical, sensory individual may not have seen the importance of the particular statements concerning responsibility, thus, explaining the negative correlation.

The second subscale analyzed in the regression analysis was cultural pluralism, which is the appreciation of various cultures and the diversity of those cultures. Pell grant eligibility contributed positively to the cultural pluralism subscale of global
mindedness, explaining 20% of the variance, while scoring higher on the sensing and thinking indicators of the MBTI were negatively related. Once again, the sensing and thinking individual may have needed further data in order to make a decision and, therefore, chose not to appreciate various cultures based on limited data. This finding does not indicate that these individuals will be unable to appreciate other cultures; they will need more information before making a decision. Instructors leading study abroad courses, teaching international curriculum or intercultural sensitivity programs may need to provide more information to assist those sensing and thinking type personalities such as geographical, political, and economic information about the particular culture. On a study abroad experience, a detailed agenda with links to websites, a minimum of two informational meetings prior to departure, and open communication and dialogue with the faculty leader could persuade a sensing or thinking individual to participate. International curriculum can enhance students’ GMS by assigning projects relating to topics of different cultures. Sensing and thinking types need to gather and collect data, such as a project researching Guyana to allow those individuals an opportunity to learn more about the culture. Last, programs provide immersion opportunities from the comfort of home. International festivals, guest lectures, and former study abroad participants can add an additional level of knowledge to those types of personality.

Efficacy is the belief that actions speak louder than words and can have an impact on the world. Twenty-one percent of the variance in the efficacy subscale was explained by the model. The extravert indicator of the MBTI contributed positively to the efficacy subscale of global mindedness. Extravert personality types receive their energy from being around other individuals, indicating a desire to be proactive and understanding their
role in society. The sensing and thinking indicators of the MBTI were negatively related, which is the same pattern for the first three subscales of global mindedness. Pell eligibility and females contributed positively to the efficacy subscale of GMS, and the assumption could be made that individuals who are Pell eligible and have a low socio-economic status would appreciate efficacy based on their own circumstances. The efficacy subscale was the only subscale that was significant for gender. In previous studies females scored higher than males. Anderson et al. (2004) suggested that females were more empathetic and would relate more than men. However, this research indicated that only one of the subscales was significant for females, and that was not interconnectedness. One might conclude that gender is not as significant as research has previously indicated.

The regression for global centrism indicated that extravert, sensing, and judging indicators of the MBTI contributed negatively to the global centrism subscale of global mindedness, while being Pell eligible was positively related. Global centrism is the ability to make decisions that are in the best interest of a global society; and, therefore, the sensory individual and thinking individual would require more information before making a decision. Once again, first generation, gender, and county populations are not contributing factors to any of the subscales.

The last subscale of global mindedness is interconnectedness. An awareness and appreciation of the interrelatedness of all cultures indicates a familial connection. The regression indicated that the extravert indicator of the MBTI contributed positively to the interconnectedness subscale of global mindedness, while scoring higher on the sensing
and thinking indicators were negatively related. The demographic factors were not significant contributors to this subscale.

The regression analysis for total global mindedness mimics the results of cultural pluralism, efficacy, and global centrism, with the exception of gender. Extravert type personality contributed positively, while sensing and thinking contributed negatively to the total global mindedness score. Pell eligibility was the only significant demographic contributor to the overall score. Throughout the regression analysis, patterns have occurred with sensing and thinking indicators of MBTI. Pell eligibility was more consistently significant throughout the subscales, including the overall score for global mindedness.

Overall, global mindedness indicated four predictor variables of extravert, sensing, thinking, and Pell grant recipients. The preconceived notion that rural students are not as worldly as metropolitan students was not confirmed in this study. In fact, socio-economic status based on Pell eligibility played a larger role in predicting global mindedness than any other demographic factor. Socio-economic status does not determine a person’s sense of the world and could be perceived as being more empathetic to cultures that are different from their own.

Research Question 2. Throughout this study, specific types of personality have been significant in predicting subscales of global mindedness and the overall global mindedness score. This is significant in proceeding with the implications of this study on internationalizing campuses. Universities throughout this country are trying to implement various methods of internationalizing their programs and students primarily through study abroad programs. While these programs are effective, they do not
internationalize all students. Therefore, by utilizing this knowledge and working with the training and teaching models of the MBTI, a campus could implement pedagogies for effectively internationalizing students based on their type of personality. Other than SES, demographics were insignificant in the multiple regression analyses. Demographics are not subject to change; however, understanding the relationship they have on global mindedness is essential in developing an effective strategy for developing more globally minded citizens.

**Implications**

The results of this study offer guidance in determining the factors that influence global mindedness. In the interest of attaining globally minded citizens, an international director can begin the implementation process by first understanding the current status of global mindedness. Second, an understanding of the types of personality and their respective influence on global mindedness is necessary. Last, demographic factors were not as significant in this study but are correlated with total global mindedness.

Universities, institutions, and organizations have determined a need to enhance global mindedness amongst their own school culture. These programs should develop and provide international experiences, international curriculum, and cultural events for students and faculty. Instructors leading study abroad courses or teaching international curriculum or intercultural sensitivity programs may need to provide more information to assist those sensing and thinking type personalities. International curriculum can enhance student GMS by discussing and relating topics about different cultures. Sensing and thinking types need to gather and collect data. A presentation project that researches a country, religion, or another culture would allow those personality types an opportunity
to enhance their world views. Last, international cultural programs provide immersion opportunities for students, faculty, and the community. International festivals, guest lectures, and former study abroad participants encourage sensitivity and empathy and decrease ethnocentrism.

**Limitations**

The primary limitation to this study, albeit intentional, is the narrow range of students surveyed. First-year students were chosen to determine their level of global mindedness was without the influences of college experiences. The researcher sought to determine their views of the world prior to the exposure of post-secondary institutions and factors that influence those views. This study investigated only college freshman students’ global mindedness; it did not reflect the entire population of the university. Another limitation was the utilization of an abbreviated version of the 2nd edition of the Myers Brigg Typology Indicator. It also contained a greater proportion of first-generation students and a smaller proportion of Pell eligible students than the university population as a whole. Administering the surveys in the fall semester would have been preferable in determining the level of global mindedness of the students prior to any collegial influence.

The final limitations relate to the generalizability of the results of this study. The sample was drawn from a group of students at one university; therefore, results may not apply to students at other universities. However, the sample was, drawn from first-year college students across all disciplines.
Future Research

This study offers interesting results to inform educational administrators in understanding the factors that impact global mindedness. However, further research can be beneficial, and could impact the effectiveness of globalization models. A longitudinal study would shed light onto the overall impact of university internationalization programs. The impact of globalization is evident, not only on university campuses, but regional and community college campuses. Additional research could compare a traditional four-year university’s global mindedness to a community or regional campus and the impact of personality and the influence of different types of demographics on GMS.

Another study on this topic could use a pre-test, post-test method of understanding the impact of such programs. Several universities have partnered or purchased campuses overseas. These programs could benefit from conducting a pre-test, post-test assessment of their global mindedness in relation to their personality of students who participate in this type of study abroad program. The desire to be international and to develop international curriculum is at the forefront. However, the development of globally educated students must start first with the professors. An interesting study could consider the global mindedness of faculty, their type of personality, their travel abroad experience, and their respective discipline. Last, a worthwhile study could research the development of effective strategies to implement and enhance globalization through international curriculum development, current curriculum enhancement, and study abroad programs based on the knowledge that personality is significant in a person’s global mindedness.
Use of qualitative methods, including one-on-one and focus group interviews with students, would assist the researcher in interpreting quantitative results. Student open-ended responses could help to understand the reasons behind some global mindedness subscales that were scored lower than others.

**Conclusion**

This area of study has tremendous potential to provide rich and beneficial guidance to any institution that desires to develop globally minded citizens. It has added to the body of knowledge and will aid in future research to develop pedagogies to implement more culturally sensitive individuals. Cultural sensitivity appears to be the primary theme among the various subscales of global mindedness and the implications of personality as related to the subscales. Multiple steps could possibly ensure all students, regardless of personality, could become more globally minded. For example, a sensing personality type would need more data prior to making a decision about the culture. An opportunity for that particular type of personality to learn about the geographical information, statistical data, a personal connection, and an immersion experience would provide an opportunity to possibly enhance their global mindedness. The next step would be for institutions to offer sensitivity related courses, which could be implemented during the freshman experience class. Exposure to various cultures, informational sessions, and ice-breaking activities could enhance the global mindedness. Another opportunity to enhance global mindedness is study abroad opportunities, in which the programs do not always focus on cultural immersion. The length of the study abroad is not the most important factor; focusing on immersion into a culture provides a student a cultural experience that goes beyond the typical educational learning experience. Immersion with
home stays, visiting families, and integrating with those families provide a richer insight into the culture, therefore, enhancing global mindedness. In understanding the implications of personality, administrators can begin assessing their programs, students, faculty, and staff in relation to global mindedness.
REFERENCES


SAGL. (2010) Study abroad participants, 2010 WKU Fact Book, Retrieved from Western Kentucky University website:


APPENDIX A: IRB APPROVAL

From: Paul Mooney
To: Guffey, Kristie
Reply To: Mooney, Paul
Subject: IRBNet Board Action
Sent: Feb 23, 2012 8:16 AM

Please note that Western Kentucky University (WKU) IRB has taken the following action on IRBNet:

Project Title: [313093-2] AN ANALYSIS OF THE FACTORS THAT INFLUENCE GLOBAL MINDEDNESS IN FIRST YEAR COLLEGE STUDENTS
Principal Investigator: Kristie Guffey

Submission Type: Amendment/Modification
Date Submitted: February 21, 2012

Action: APPROVED
Effective Date: February 23, 2012
Review Type: Exempt Review

Should you have any questions you may contact Paul Mooney at paul.mooney@wku.edu.

Thank you,
The IRBNet Support Team

www.irbnet.org
APPENDIX B: INFORMED CONSENT LETTER

Informed Consent for Global Mindedness Evaluation Survey

Dear participants:

For my dissertation in the Educational Leadership doctoral program at Western Kentucky University, I am asking participants of the university experience courses to answer several questions about their views of the world. I would like to understand the factors that influence students’ global mindedness. This survey will help the university, faculty, and directors of study abroad to understand the current world views of our students and determine what factors influence their views. This survey should only take about 30 minutes of your time, but it is important that you fill it out completely. Completing this survey will not affect your grade in the class. Although I would really like you to complete the survey, you may stop at any time without any negative consequences. Any answers on your survey will be grouped with other students’ answers to look for significant findings, and therefore none of your specific answers will be shared or connected with your identity.

In this survey you will be asked some questions about your feelings around different cultures outside of the U.S., and your familiarity with issues that impact the world. You will also be asked to provide basic demographic information, but not your name. You must be 18 years old to participate in this survey. By participating in this survey, you agree to participate in this research conducted to understand the factors that influence global mindedness. Your continued cooperation with the following research
implies your consent. If you have any questions about this survey, please contact Kristie B. Guffey.

Thank you,

Kristie B. Guffey, ABD WKU Doctoral candidate
APPENDIX C: COPYRIGHT PERMISSION OF THE GLOBAL MINDEDNESS SCALE

Dallas Boggs [boggs@sandiego.edu]
Sent: Sunday, February 12, 2012 1:03 PM
To: Guffey, Kristie

Dear Kristie, You have reached the right Boggs. You have my full permission to use Jane Hett’s Global Mindedness Scale in any way you see fit. My very best wishes on your research project.

Dallas Boggs

From: Guffey, Kristie [kristie.guffey@wku.edu]
Sent: Thursday, February 16, 2012 5:19 PM
To: Dallas Boggs
Subject: Permission for Hett’s GMS
Dr. Boggs,

It is my understanding that you hold the copyright for E. Jane Hett’s dissertation instrument. I am writing you to receive permission to use Jane Hett’s instrument. I am conducting research on students’ global mindedness and determining what relationships or influence personality type has on global mindedness. If I have reached the wrong Mr. Boggs, I apologize for the inconvenience.

Kristie B. Guffey, ABD
APPENDIX D: GLOBAL MINDNESS SCALE SURVEY

Survey #__________

GLOBAL-MINDNESS SCALE

Student Attitude Survey
Please read each of the following statements. Circle the response that reflects your level of agreement with each statement. There are no correct answers.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I generally find it stimulating to spend an evening talking with people from another culture.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I feel an obligation to speak out when I see our government doing something I consider wrong.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The United States is enriched by the fact that it is comprised of many people from different cultures and countries.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Really, there is nothing I can do about the problems of the world.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The needs of the United States must continue to be our highest priority in negotiating with other countries.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I often think about the kind of world we are creating for future generations.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. When I hear that thousands of people are starving in an African country, I feel very frustrated.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Americans can learn something of value from all different cultures.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Generally, an individual's actions are too small to have a significant effect on the ecosystem.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. When I see the condition some people in the world live under, I feel a responsibility to do something about it.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I enjoy trying to understand people's behavior in the context of their culture.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. My opinions about national policies are based on how those policies might affect the rest of the world as well as the United States.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>Statement</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Unsure</td>
<td>Agree</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>---------</td>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>16</td>
<td>America values are probably the best.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17</td>
<td>In the long run, America will probably benefit from the fact that the world is becoming more interconnected.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19</td>
<td>It is important that American universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>I think my behavior can impact people in other countries.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21</td>
<td>The present distribution of the world’s wealth and resources should be maintained because it promotes survival of the fittest.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>I feel a strong kinship with the worldwide human family.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23</td>
<td>I feel very concerned about the lives of people who live in politically repressive regimes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24</td>
<td>It is important that we educate people to understand the impact that current policies might have on future generations.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>25</td>
<td>It is not really important to me to consider myself as a member of the global community.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>26</td>
<td>I sometimes try to imagine how a person who is always hungry must feel.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>27</td>
<td>I have very little in common with people in underdeveloped nations.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>28</td>
<td>I am able to affect what happens on a global level by what I do in my own community.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>29</td>
<td>I sometimes feel irritated with people from other countries because they don’t understand how we do things here.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>30</td>
<td>Americans have a moral obligation to share their wealth with the less fortunate people of the world.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
APPENDIX E: MYERS BRIGGS TYPE INDICATOR 2nd EDITION
QUESTIONNAIRE

THE MYERS BRIGGS TYPE INDICATOR QUESTIONNAIRE

Directions: Please read each of the following statements. Circle only one of the responses that reflect your level of agreement with each statement. There are no wrong answers.

31. A. Expend energy, enjoy groups
    B. Conserve energy, enjoy one-on-one

32. A. Interpret matters literally, rely on common sense
    B. Look for meaning and possibilities, rely on foresight

33. A. Logical, thinking, questioning
    B. Empathetic, feeling, accommodating

34. A. Organized, orderly
    B. Flexible, adaptable

35. A. More outgoing, think out loud
    B. More reserved, think to yourself

36. A. Practical, realistic, experiential
    B. Imaginative, innovative, theoretical

37. A. Candid, straight forward, frank
    B. Tactful, kind, encouraging

38. A. Plan, schedule
    B. Unplanned, spontaneous
39. A. Seek many tasks, public activities, interaction with others  
B. Seek more private, solitary activities with quiet to concentrate

40. A. Standard, usual, conventional  
B. Different, novel, unique

41. A. Firm, tend to criticize, hold the line  
B. Gentle, tend to appreciate, conciliate

42. A. Regulated, structured  
B. Easygoing, “live” and “let live”

43. A. External, communicative, express yourself  
B. Internal, reticent, keep to yourself

44. A. Consider immediate issues, focus on the here-and-now  
B. Look to the future, global perspective, “big picture”

45. A. Tough-minded, just  
B. Tender-hearted, merciful

46. A. Preparation, plan ahead  
B. Go with the flow, adapt as you go

47. A. Active, initiate  
B. Reflective, deliberate

48. A. Facts, things, seeing “what is”  
B. Ideas, dreams, seeing “what could be,” philosophical
49. A. Matter of fact, issue-oriented, principled
    B. Sensitive, people-oriented, compassionate

50. A. Control, govern
    B. Latitude, freedom
APPENDIX F: DEMOGRAPHIC PROFILE

DEMOGRAPHIC PROFILE

In order to analyze the data on your survey, some information about your background will be helpful. Please check the box or supply the most accurate response for each of the following statements or questions.

51. Gender: Female / Male
52. Current class level: FR SO JR SR Other
53. Age on your last birthday ______________
54. Major Field of Study ______________________________________________
55. What is your current grade point average (GPA)? _______________

56. Is it important for me to be successful in my professional life to be globally minded? (1 = Strongly Disagree, 2 = Disagree, 3 = Unsure, 4 = Agree, 5 = Strongly Agree)
   1 2 3 4 5

57. Is it important for me to be successful in my personal life to be globally minded? (1 = Strongly Disagree, 2 = Disagree, 3 = Unsure, 4 = Agree, 5 = Strongly Agree)
   1 2 3 4 5

58. Do you qualify for Pell Grants? Yes No
59. Are you a first generation college student? Yes No
(A first generation student is defined as a student who comes from a family where neither parent graduated from college with a bachelor’s degree.)

60. How would you describe yourself? (Select one or more races)
   _____ American Indian or Alaska Native
   _____ Black or African American
   _____ Native Hawaiian or Other Pacific Islander
   _____ Asian
   _____ Hispanic or Latino
   _____ White
   _____ Other
61. Were you born in the United States?  Yes  No

62. From which high school did you graduate?

a. High school city

b. High school state

63. What is your first language?  English  Other (List)

64. Have you previously studied abroad?  Yes  No

   If yes, in which countries and for how long?

65. Have you previously worked abroad?  Yes  No

   If yes, in which countries and for how long?

66. Have you previously traveled abroad?  Yes  No

   If yes, in which countries and for how long?

67. Have you previously lived abroad?  Yes  No

   If yes, in which countries and for how long?
68. Including this semester please estimate the number of college courses you’ve taken that dealt with global issues or foreign countries.______________________________
______________________________
CURRICULUM VITAE

KRISTIE BROADBENT GUFFEY

Education

Ed.D. in Educational Leadership 2012
Western Kentucky University
Bowling Green, Kentucky

Emphasis: Organizational leadership
Dissertation: An Analysis of the Factors that Influence Global Mindedness in First Year College Students

Masters of Science 2006
Murray State University
Murray, Kentucky

Major: Agriculture Education
Emphasis: Teacher Education & Assessment

Bachelor of Science 2001
Western Kentucky University
Bowling Green, Kentucky

Major: Agriculture Education

Teaching Certification
Kentucky
Agriculture Education (5-12)

Experience

2005- Present
Western Kentucky University
WKU-Glasgow Regional Campus

* Agriculture Instructor
* KTIP Teacher Educator
* Agriculture Study Abroad Coordinator for the Glasgow Regional Campus
* Assistant Advisor
* University College, International Education Council representative
2001-2005 Carlisle County High School

Bardwell, Kentucky

* Agriculture Science Teacher
* Agriculture Department Head
* FFA Advisor
* Carlisle County Fair Board Secretary
* KAAE Regional Vice-President

Publications and Creative Works

Posters & Presentations at National Conferences


Invited Presentations and Workshops


Teaching

Western Kentucky University 2005-Present

- AGRI 101 – Introduction to Agriculture (21 hours taught)
- AGRI 108 – Rural Sociology (75 hours taught)
- AGRI 110/111 – Plant Science/Lab (17 hours taught)
- AGRI 170/171 – Agriculture Mechanics/ Lab (15 hours taught)
- Lead 200 – Introduction to Leadership (6 hours taught)
- AGRI 280 – Environmental Science (15 hours taught)
- AGED 475 – Issues in Kentucky Agriculture (3 hours taught)

Carlisle County High School 2001-2005

- Introduction to Agriculture (8 courses taught)
- Agri-Biology (4 courses taught)
- Greenhouse Production (4 courses taught)
- Landscape Management (4 courses taught)
- Floral Design (4 courses taught)

International Education & Study Abroad Opportunities

Western Kentucky University 2007-Present

- 2012 - Ecuador, South America (January & March) 14 WKU-Glasgow Regional Campus students studied the culture and agriculture of Ecuador.
- 2011 - Ecuador, South America (January & March) 20 WKU-Glasgow Regional Campus students studied the culture and agriculture of Ecuador.
• 2010 – Ecuador, South America (January & March) 11 WKU-Glasgow Regional Campus students studied the culture and agriculture of Ecuador.

• 2009 - Ecuador, South America – 9 WKU – Glasgow Regional Campus students studied the culture and agriculture of Ecuador.

• 2008 – Ecuador, South America – 6 WKU – Glasgow Regional Campus students studied the culture and agriculture of Ecuador.

• 2008 – Costa Rica, Central America – 3 WKU – Glasgow Regional Campus students studied the eco-tourism, culture, and agriculture of Costa Rica.

• 2007 – Ecuador, South America – 4 WKU – Glasgow Regional Campus students studied the culture and agriculture of Ecuador.

**Service Activities**

**Western Kentucky University 2005-Present**

• Upward Bound summer biology instructor, Western Kentucky University.

• Judge, Agriculture Sales State CDE. Louisville, Kentucky.

• Judge, Creed Speaking State CDE. Louisville, Kentucky.

• Judge 4-H Talk Meet. Glasgow, Kentucky.

• Judge, Chapter Meeting Barren River Regional CDE. Bowling Green, Kentucky.

• Judge, Chapter Meeting Lake Cumberland Regional CDE, Colombia, Kentucky.

• Interview Coach, National FFA Vice-President Coty Back, Indianapolis, Indiana.

• Public Speaking Coach, Matthew Stephens, WBKO
Meteorologist, Bowling Green, Kentucky.

- Assisted in numerous Advising and Scheduling sessions.
- Numerous recruitment activities on the state, regional, and local level.

**Professional Organization & Honorary Societies**

- American Association for Agricultural Educators (AAAE)
- American Farm Bureau Federation
- Association for International Agricultural and Extension Education (AIAEE)
- Association for Career and Technical Education (ACTE)
- National Association of Agricultural Educators (NAAE)
- Association for International Educators (NAFSA)
- International Leadership Association, ILA
- Kentucky Association of Agriculture Educators (KAAE)
- Kentucky Vocational Agriculture Teachers Association (KVATA) Purchase Regional Vice-President (2004-2005)
- National FFA Alumni
- Carlisle County Fair Board Secretary (2004)
- Carlisle County High School Retention Management Committee (2003-2005)
- Western Kentucky University Department of Agriculture Ambassador (2000-2001)
- KY Partners of the Americas (2000 – present)
- Western Kentucky University Agriculture Education Society President (1999-2001)
Kentucky Broadcaster’s Association (1994-2000)

Western Kentucky University Block & Bridle Member

National FFA Officer Candidate (1997)

Kentucky FFA State President (1996-1997)

Kentucky State Board of Agriculture member (1997)

**Honors & Awards**

- Western Kentucky University College of Education and Behavioral Sciences Outstanding Doctoral Senior – Organizational Leadership (2012)
- Barren County Rising Star (2011)
- American Farm Bureau Discussion Meet Participant (2010)
- Kentucky Farm Bureau Discussion Meet Winner (2009)
- National FFA Advisor Recognition Award (2007)
- Former Kentucky State FFA Officer Service Award (2007)
- Trigg County FFA Honorary Degree (2007)
- Carlisle County FFA Honorary Degree (2005)
- Purchase Region Outstanding FFA Advisor (2003)
- Western Kentucky University Department of Agriculture Outstanding Senior (2001)
- Western Kentucky University US Tobacco Scholarship recipient (1997-2001)
- American FFA Degree (1997)

**References available upon request**