EVALUATING THE EFFECTIVENESS OF THE
INTERNATIONAL DIMENSION IN AN
UNDERGRADUATE CURRICULUM BY ASSESSING
STUDENTS’ INTERCULTURAL SENSITIVITY

By

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“And so it was that [she], having waiting long and endured patiently, realized and obtained what God had promised.” Hebrews 6:15, Amplified Version

This work is dedicated to and in loving memory of three people lost during the course of this project: John Wilkey, my Poppa; Aaron Manochi, my dear friend; and Amy Morse, my friend, fellow REMS student, and colleague.

To my advisor, Dr. Janice Miller, thank you for overseeing this project. Your expertise in our field is impressive, and I am a direct beneficiary of the dedication you show in teaching statistics in such an applied, understandable way. To Dr. Katye Perry, thank you for being my mentor and friend; I am so grateful for your support and guidance. Your love for what you do is contagious! To Dr. Diane Montgomery, your ability to talk through findings and examine the ‘how and why’ is amazing. Thanks for being a part of this project, and for your guidance throughout my time as a Ph.D. student. To Dr. Carolyn Henry, you have been a part of my entire college experience! Your knowledge, support, and insight have played an integral part in shaping my academic and professional careers. I also extend my sincere gratitude and appreciation to Dr. Dale Fuqua and Dr. Mwarumba Mwavita, whose contributions of time, knowledge, and support have been invaluable. Thanks also to Rob Inman and Jed Gibson, who helped me analyze data (Rob) and work your magic in Excel (Jed) when I was in a pinch!

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To my family, I love you more than words can say.

To my fiancé Delton, thank you for listening to me ramble on about this project for hours on end, for helping me code data (also for hours on end), and for cooking dinner for me so I could stay on campus late and write. Most of all, thank you for being my ‘happily ever after.’ I have never been more excited about anything as I am about spending the rest of my life with you—I love you!

Special thanks to Garth Brooks for providing the majority of the music for my ‘Dissertation Writing’ playlist and Aspen Coffee for giving me a place to write when I couldn’t focus at home!

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This evaluation research revealed that students’ intercultural sensitivity (IS) scores did not change regardless of the type of class in which the student was enrolled. IS scores were not significantly different based on gender, age, ethnicity, undergraduate classification, college enrollment, and number of ‘I’ courses taken. There were no significant interactions for ethnicity x OSU cultural event participation, college enrollment x the number of ‘I’ courses taken, and parent culture x OSU cultural event participation. There were significant differences in IS scores based on religion, traveling outside the US, participating in a study abroad course, and the number of cultural events in which the student had participated. There was a significant interaction effect for living outside the US x traveling outside the US, indicating that for students who had never lived outside the US, IS scores were significantly higher for those that had traveled outside the US than for those who had not.

IS scores were significantly correlated with the number of ‘I’ courses and study abroad courses, the number of times traveled outside the US, the number of cultural events participated in, and religious affiliation. Gender, age, ethnicity, classification, and number of times lived outside the US were not significantly correlated with IS. Regression analysis confirmed the set of variables that were positively correlated with IS scores accounted for 11.1% of the variability in ISS scores, with religious affiliation and number of times traveled outside the US being significant predictors of IS scores.

Course characteristics were considered for analyses regarding their effects on intercultural sensitivity scores. Using criterion coding, regression analysis determined IS scores varied as a function of course characteristics, and course prefix was a significant individual predictor of ISS scores.

Finally, students’ answers indicated that they did not attribute their opinions of other cultures, interactions with others, participation in cultural activities, and ability to work with others to the classes they took. Students did not believe the courses they took changed the way they thought about people from other cultures.
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CHAPTER I

INTRODUCTION TO THE STUDY

Today’s college students are obtaining their postsecondary education in a highly global environment that includes attending classes with international students, taking courses led by professors from other countries, taking part in study abroad experiences, and witnessing an international presence on TV shows and news outlets. Yet, the current climate in the post-9/11, highly media-influenced United States is one that may promote ideas of globalization, nationalism, and occasionally even fear of people from other cultures or countries. Since the 1970s, colleges and universities have increasingly been tasked with helping students become more adept at navigating the multicultural and global world in which we live (Bardhan, 2003). Further, student attitudes toward international components of education have shifted from more negative views in the 1970s to more recent attitudes of support (Price & Gascoigne, 2006). Currently, college curricula not only include strict academic requirements but also provisions for providing students with certain skills and attitudes towards others.

Both the general public as well as college students themselves have an expectation for university to provide students with an international education (Price & Cascoigne, 2006). In fact, some even assert that the higher education environment has a social and ethical obligation to develop students into global citizens (Harrison & Peacock, 2010). Yet, methods to provide an education that facilitates intercultural competence and awareness have been questioned and revised over the years. Higher education’s traditional focus on study/work abroad experiences for
domestic students has served a minority of students and is declining in popularity (Harrison & Peacock, 2010). The focus of international education in colleges and universities has changed from diplomatic intercultural exchange to globalism and preparing students to function in an international and multicultural context; in other words, the focus is now on improving understanding, competence, and intercultural relations (Lee & Rice, 2007). For most institutions, this is achieved through course curricula and co-curricular activities (Deardorff, 2011).

The Problem

College students today are obtaining their postsecondary education in a highly global environment, and the idea of an international education has risen to the forefront of students’ and society’s expectations for college and university curricula (Price & Gascoigne, 2006). General education requirements have shifted to include these ideas, as intercultural competence and diversity are among some of the most important skills and developmental issues that must be addressed within learning outcomes for today’s college students (Deardorff, 2011). The concept of ‘internationalization at home’ programs, which provide students with information about other cultures and countries and foster a sense of global citizenship in general educational curriculum, has come about in many academic institutions (Harrison & Peacock, 2010). However, questions have been raised about these programs, as some point out there are significant hurdles to their success. One such hurdle centers around the difficulty of facilitating the intercultural development of students (Harrison & Peacock, 2010). Further, the effectiveness of these programs is difficult to assess because choosing an outcome measure is complex and the options these programs provide are diverse.

Consistent with Deardorff’s (2011) assertion that intercultural competence and diversity are at the forefront of the issues that must be addressed within learning outcomes for today’s college students, students at Oklahoma State University (OSU) are required to take at least one course that focuses on an ‘international’ dimension during their undergraduate career. The goals
of courses with an ‘I’ designation are to “prepare students to critically analyze one or more contemporary cultures external to the United States; understand how contemporary international cultures relate to complex, modern world systems; and demonstrate their understanding through written work that provides them the opportunity to enhance their writing skills” (OSU Course Catalog, 2012, p. 10). There are 104 courses at Oklahoma State University that carry the ‘I’ designation in over 30 academic departments, spanning all six colleges within the University (OSU Office of the Registrar, 2011). However, while both the Oklahoma State Regents for Higher Education (OSRHE) and the Oklahoma A&M Board of Regents have incorporated international education and appreciation for diversity and other cultures into degree requirements, an evaluation of student attitudes towards intercultural sensitivity as a result of completing such coursework has not been conducted.

**Purpose of the Evaluation Research Study**

OSU has stated that one goal of the general education requirements (of which the ‘I’ courses are a part) is to assist “the student in understanding and respecting diversity in people, beliefs and societies” (OSU Course Catalog, 2012, p. 10). However, while there are procedures in place to evaluate students’ work in these courses, there is no evaluation procedure in place to specifically assess the extent to which students’ understanding of and sensitivity to navigating cultural issues is affected by taking an ‘I’ course. Since the need for these courses has been promoted by students (Price & Gascoigne, 2006), society (Bardhan, 2003; Harrison & Peacock, 2010), and the governing body of OSU (OSRHE, 2011a), an evaluation of their effectiveness appears warranted. The purpose of this study is to evaluate the effectiveness of the ‘I’ course by measuring students’ intercultural sensitivity at the start and end of the semester in which the student takes the ‘I’ class. This study provided a formative, outcome-oriented evaluation. Specifically, this study was be guided by the following evaluation research questions:

1) Do students’ intercultural sensitivity scores change after taking an ‘I’ course?
2) Are students’ intercultural sensitivity scores influenced by demographic variables such as age, gender, ethnicity, home country, classification in school, major, and previous intercultural experience?

3) Which student characteristics best predict intercultural sensitivity?

4) Which ‘I’ course characteristics best predict intercultural sensitivity?

To answer these questions, students enrolled in ‘I’ courses at Oklahoma State University were given a survey assessment that measures intercultural sensitivity twice during the Fall 2012 semester: once at the beginning of the semester (when classes first begin), and again at the end of the semester (as classes end). The students’ pre and post scores were compared in hopes of determining whether the mandatory ‘I’ course effectively influences students’ intercultural sensitivity.

Limitations

It is important to recognize that this study was an evaluation, and as such, the findings of this study are specific to Oklahoma State University and cannot be generalized to other institutions. However, one might expect the results to be comparable to other land-grant institutions in the Midwest.

Definition of Terms

It is important to understand the meaning of several terms in the context of this study. For clarity purposes, the definitions for the following terms used throughout this study are as follows:

Culture: “the relatively stable set of inner values and beliefs generally held by groups of people….and the noticeable impact those values and beliefs have on the peoples’ outward behaviors and environment” (Peterson, 2004, p. 17).
**Evaluation research:** “a type of study that uses standard social research methods for evaluative purposes, as a specific research methodology, and as an assessment process that employs special techniques unique to the evaluation of social programs” (Powell, 2006; p. 102).

**General education:** a breadth of coursework “intended to impart common knowledge and intellectual concepts to students and to develop in them the skills and attitudes that an organization’s faculty believe every educated person should possess” (Higher Learning Commission, 2003, p. 1).

**Global society:** a society in which aspects of all cultures, religions, and knowledge are connected (or are perceived as connected) because of globalization.

**Globalization:** “the multiplicity of linkages and interconnections that transcend the nation-states (and by implication the societies) which make up the modern world system. It defines a process through which events, decisions, and activities in one part of the world can come to have significant consequences for individuals and communities in quite distant parts of the globe” (McGrew, 1992, p. 468).

**Intercultural competence:** “effective and appropriate behavior and communication in intercultural situations” (Deardorff, 2011, p. 66); “the ability to think and act in interculturally appropriate ways” (Hammer, Bennett, & Wiseman, 2003, p. 422).

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

**Assumptions of the Evaluation**

The following is assumed in this evaluation:

1) Intercultural sensitivity is valued by stakeholders, and the ‘I’ course requirement is evidence of this;

2) Intercultural sensitivity can be developed and has the potential to change during the course of the semester (based on Bennett’s (1984) Developmental Model of Intercultural Sensitivity, discussed later in this paper); and
3) Participants in this evaluation research study provided thoughtful, honest answers to the questions in this evaluation.

**Significance of this Evaluation Research Study**

Given that all undergraduate students at OSU are required to take at least one ‘I’ course before they graduate, this study helped to determine the extent to which the ‘I’ course effectively influences students’ intercultural sensitivity. Further, by evaluating the effectiveness of the ‘I’ dimension courses at OSU, this study added to the information the university has regarding the effectiveness of these courses in accomplishing the goals set by the University administrators and governing boards. This study contributed to the literature regarding the assessment and evaluation of higher education’s efforts to increase students’ intercultural competence and understanding of diversity in an increasing global society. The findings of this study are important to OSU administrators, the OSU Office of University Assessment and Testing, and the OSU General Education Advisory Council (GEAC) in assessing the effectiveness of current course requirements. The data gathered in this study may further serve to help guide future directions for achieving the university’s general education goals. For example, this study gathered information regarding student characteristics (e.g., age, gender, classification, previous intercultural experience, etc.) and institutional characteristics (e.g., number of ‘I’ courses taken, type of ‘I’ course, etc.) that may contribute to students’ intercultural sensitivity. This information can be utilized to help plan future studies and to further explore what kinds of intercultural/international experiences are best and which courses are most effective at influencing intercultural sensitivity.

**Organization of the Study**

This chapter provided the background of the problem and the purpose of this study. Further, this chapter outlined limitations and definition of terms, as well as the significance of the study. Chapter II provides a review of the literature regarding intercultural sensitivity and intercultural competence. An overview of general education requirements in higher education, an
outline of the State of Oklahoma’s higher education system, and a summary of OSU’s interpretation of higher education goals and general education requirements is presented. Chapter III provides an overview of the method used for this study, including a description of the research design and participants as well as a description of the survey used in this evaluation. Chapter IV presents the results from data analyses. Finally, Chapter V includes a discussion of the results and implications for the findings as well as recommendations for the university and future research.
CHAPTER II

REVIEW OF THE LITERATURE

College students today are expected to have more than just academic knowledge upon graduation. Throughout the past century, the college years have increasingly become a time for students to not only achieve cognitive and intellectual growth but also to develop psychosocial skills, moral reasoning, and professional competence (Pascarella & Terenzini, 2005). Since the 1970s, colleges and universities have increasingly been tasked with helping students become more adept at navigating the multicultural and global world in which we live (Bardhan, 2003). Both the general public as well as students themselves have an expectation for universities to provide students with an international education (Price & Gascoigne, 2006).

Harrison and Peacock (2010) assert students should be developed into global citizens during their time in college. Since students are increasingly expected to be knowledgeable on the subject matter of their chosen major as well as socially competent, college curricula currently includes not only strict academic requirements but also provisions for providing students with certain skills and attitudes towards others. One such skill that students are encouraged to develop is that of intercultural competence (Deardorff, 2011; Fantini, 2009). Deardorff (2011) asserts that administrators and faculty at today’s colleges and universities should be asking themselves, “How well prepared are our students for this global world in which we live and work?” (p. 77).

In an effort to better prepare students as Deardorff suggests, a variety of ways to help prepare students for working in a diverse global society have been incorporated into college
curricula and co-curricular activities (Deardorff, 2011). At Oklahoma State University (OSU), students are required to take at least one course that focuses on an ‘international’ dimension during their undergraduate career. However, just as is the case with many programs aimed at increasing students’ intercultural competence at many institutions around the US (Deardorff, 2011), the effect of the ‘I’ courses on OSU students’ intercultural sensitivity is largely unknown.

This literature review is organized around three overarching themes: 1) Globalism and Intercultural Sensitivity; 2) Theoretical Perspectives; and 3) General Education and Intercultural Sensitivity in Higher Education. This literature review examines the role of culture and the idea of a ‘global society’ in today’s world; discusses the concepts of intercultural competence and intercultural sensitivity and how they have become incorporated into the higher education system; provides an overview of general education at the university level; discusses how intercultural sensitivity has been incorporated into general education; explains Oklahoma’s higher education system and Oklahoma State University’s general education requirements; and provides an explanation of the ‘I’ course requirement at OSU.

**Globalism and Intercultural Sensitivity**

The concepts of globalism and intercultural sensitivity are related. As international trade and travel become the norm, the sharing of cultures and knowledge is inevitable. Since colleges and universities are tasked with helping students become global citizens (Harrison & Peacock, 2010), a discussion of globalization and intercultural sensitivity in higher education is necessary.

**Culture and the Idea of a ‘Global Society’ in Higher Education**

The ideas of culture, a ‘global society’, and globalization all play an underlying and important role in helping students understand and respect “diversity in people, beliefs and societies” (OSU Course Catalog, 2012, p. 10), which is an outcome often articulated in higher education (and is at the core of this study). Thus, a discussion of these concepts is warranted.
**Definitions of Culture and Globalism.** Culture is a concept that is frequently used in discourse on many topics and in a variety of contexts, yet its meaning is not often articulated. For purposes of this study, culture is defined as “the relatively stable set of inner values and beliefs generally held by groups of people….and the noticeable impact those values and beliefs have on the peoples’ outward behaviors and environment” (Peterson, 2004, p. 17). Put differently, “culture is a context through which and in which events are viewed, and this context may cause one to see the world differently than others see it, or differently than it actually is” (Durocher, 2007, p. 153). Harrison and Peacock (2010) note that culture includes “aspects such as strength of social hierarchies, the role of family, relative gender dominance, attitudes to politeness, attitudes to uncertainty and time, the fixedness of rules and levels of ethnocentrism” (Harrison & Peacock, 2010, p. 881).

The sharing of cultures between people has led to a sense of a ‘global society’, or a society in which aspects of many cultures, religions, and knowledge around the world are connected (or are perceived as connected) because of globalization. Globalization refers to “the multiplicity of linkages and interconnections that transcend the nation-states (and by implication the societies) which make up the modern world system. It defines a process through which events, decisions, and activities in one part of the world can come to have significant consequences for individuals and communities in quite distant parts of the globe” (McGrew, 1992, p. 468). Though his book is some 20 years old, McGrew’s (1992) assertion regarding the transfer of culture and societal issues is still relevant today: “Nowadays, goods, capital, people, knowledge, images, communications, crime, culture, pollutants, drugs, fashions, and beliefs all readily flow across territorial boundaries” (p. 470). Thus, globalization and culture are tied together because as sharing information across cultures becomes easier (e.g., through travel, communication technologies, and the internet), the likelihood that people, such as college students, will encounter a person different from themselves increases (Tamam, 2010).


**Importance of Culture and Globalization in Higher Education.** Globalization is a relevant topic in higher education because it affects all aspects of learning, and it ties into various learning outcomes as well. Because social and professional networks, relationships, and education have all been stretched across international borders (McGrew, 1992), the reasons why both students and society believe higher education has an ethical and social obligation to develop students into global citizens (Harrison & Peacock, 2010) become clear. Not only are students expected to be able to function in a more global society after they finish their education, they are also often learning in culturally diverse environments, as professors, staff, and fellow students are sometimes from other countries and cultures.

In higher education (and in society as a whole), there are many benefits of interacting with people and students who are different than oneself, including increasing the diversity of student populations, adding new perspectives to classrooms, increasing awareness and appreciation for other cultures, adding to the intellectual capital, and increasing goodwill between the US and other countries (Barron & Dasli, 2010; Lee & Rice, 2007). Further, as the work force becomes more diverse, employers look for and expect employees to be able to successfully navigate culturally diverse environments (Harrison & Peacock, 2010; Mahoney & Schamber, 2004). Several studies have demonstrated that working professionals must have a level of cultural awareness, knowledge, and skill in order to provide appropriate services (Munoz, Conrad DoBroka, & Mohammad, 2009; Shah, King, & Patel, 2004). Thus, the expectation that students should learn these skills in college is not a surprise.

**Intercultural Competence and Intercultural Sensitivity**

While the importance of effective cultural communication and interaction has been documented (Harrison & Peacock, 2010; Lee & Rice, 2007; Mahoney & Schamber, 2004), getting a clear picture of what to call this interaction and how to assess it has been difficult. Deardorff (2011) notes that many different terms have been used to address the concept of
Intercultural competence; these terms include “multiculturalism, cross-cultural adaptation, intercultural sensitivity, cultural intelligence, international communication, transcultural communication, global competence, cross-cultural awareness, and global citizenship” (p. 66). For purposes of this evaluation research study, two terms are used—intercultural competence and intercultural sensitivity—and the distinction between these terms is discussed in the following sections.

**Intercultural Competence.** People from different cultures are likely to have different traditions, beliefs, and views on the same issue (Ahamer, Kumpfmüller, & Hohenwarter, 2011). Because these different opinions, beliefs, and views exist, intercultural competence is critical in improving relations across cultures and developing an increased level of understanding for students (Hammer et al., 2003). Hammer et al. (2003) define intercultural competence as “the ability to think and act in interculturally appropriate ways” (p. 422). The concept of intercultural competence has been tied to success in intercultural relations (across ethnicity, gender, age, sexual orientation, etc.), management, travel, technology, and overall employee effectiveness both globally and domestically (Hammer et al., 2003).

Achieving intercultural competence is a complex developmental process that involves the integration of knowledge with experience (Munoz et al., 2009). Intercultural competence does not develop merely from contact with people from other cultures (Harrison & Peacock, 2010). Instead, it develops from increased awareness of, appreciation for, and sensitivity to intercultural issues. The goal of intercultural competence is “effective and appropriate behavior and communication in intercultural situations” (Deardorff, 2011, p. 66). Intercultural competence is a complex, broad term that encompasses appropriately interacting with people from different cultures “in a way that avoids misunderstandings and creates opportunities” (Janeiro, 2009, p. 12). Thus, if intercultural competence is the goal, intercultural sensitivity is the first step toward achieving it.
**Intercultural Sensitivity.** Whereas intercultural competence involves effective and appropriate behavior in intercultural situations (Deardorff, 2011; Hammer et al., 2003), intercultural sensitivity is the ability to “discriminate and experience relevant cultural differences” (Hammer et al., 2003, p. 422). Thus, intercultural sensitivity is cognitive and attitudinal in nature (Altshuler, Sussman, & Kachur, 2003). Bhawuk and Brislin (1992) noted that “in order to be effective in another culture, people must be interested in other cultures, be sensitive enough to notice cultural differences, and then also be willing to modify their behavior as an indication of respect for the people of other cultures” (p. 416). Further, Chen and Starosta (2000) assert that intercultural sensitivity is comprised of five components: interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness. Thus, interest in and ability to recognize differences between cultures (intercultural sensitivity) is a prerequisite to modifying behavior (intercultural competence).

Hammer et al. (2003) asserts that “greater intercultural sensitivity is associated with greater potential for exercising intercultural competence” (p. 422). In other words, people who have an awareness of cultural differences and can think about and conceptualize these differences exhibit intercultural sensitivity; those who can navigate these differences appropriately exhibit intercultural competence. Because intercultural sensitivity is a precursor to intercultural competence (Chen & Starosta, 2000; Tamam, 2010), this study focused on evaluating changes in intercultural sensitivity.

**Theoretical Perspectives**

This evaluation is guided by theory in two ways. First, the Theory Based Evaluation Approach (Chen & Rossi, 1983; Fitzpatrick, Sanders, & Worthen, 2004; Rogers, Petrosino, Huebner, & Hacsi, 2000) has guided the selected outcome in this study (intercultural sensitivity) as well as the focus of data collection (gathering information from students themselves). Second, this study is informed by Bennett’s (1984) Developmental Model of Intercultural Sensitivity,
which suggests that intercultural sensitivity is a concept that can be taught and learned. Both the theory based evaluation approach as well as the Developmental Model of Intercultural Sensitivity are discussed in this section.

**Theory Based Evaluation**

Evaluation as a field of study has existed since the early 1900s. Evaluation is defined as “the identification, clarification, and application of defensible criteria to determine an object’s value (worth or merit) in relation to those criteria” (Fitzpatrick et al., 2004, p. 5). There are many different approaches to evaluation; the approach that has guided the development of this study is theory based evaluation. Evaluators have recommended using the stated assumptions of how a program is expected to work (the program theory) to guide evaluations for over 40 years (Rogers et al., 2000).

**Distinguishing Features.** Many terms have been used to describe the program theory approach to evaluation, including theory based evaluation, program logic, and theory driven evaluation (Rogers et al., 2000). For purposes of this study, the term ‘theory based evaluation’ is used. Theory based evaluation “uses program theory as a tool for (1) understanding the program to be evaluated, and (2) guiding the evaluation” (Fitzpatrick et al., 2004). It is important to point out that the use of the term *theory* in ‘theory based evaluation’ is not referring to theory in the traditional social science sense (e.g., Attachment Theory or Social Learning Theory). Instead, *theory* in ‘theory based evaluation’ often refers to “…nothing more than a few simple assumptions about why the program should work” (Bickman, 1987, p. 6). Theory based evaluation helps identify the processes or mechanisms through which a program achieves its ultimate outcome (Rogers et al., 2000). Put another way, theory based evaluation outlines the theoretical or causal model behind a program in order to guide how and why an evaluation is conducted (Rogers et al., 2000).
Theory based evaluation is helpful in uncovering theories or causal models of programs even when the program theory is not developed until after a program is implemented (Bickman, 1987). Theory based evaluation can help specify program goals as well as assist in identifying clearly defined outcome variables, even when program designers and/or policymakers have not clearly articulated these things themselves (Chen & Rossi, 1983). Oftentimes, the objectives, goals, and theory underlying programs may be purposely ambiguous (Bickman, 1987). Theory based evaluation can help explore the notions or hunches (i.e., ‘theory’) on which program developers, policy makers, and implementers based a program or specific requirement (Bickman, 1987) in order to help determine the reasons a program is in place and if it is achieving the intended outcome(s).

**Uses of the Approach.** Program theory is used in a variety of ways to guide evaluation. There are two broad ways in which it is commonly used: 1) in summative evaluation to test the processes or mechanisms that mediate the delivery of a program and the emergence of specified outcomes; and 2) in formative evaluation to help agencies report performance information and improve services or outcomes (Rogers et al., 2000). Theory based evaluation has been used to evaluate programs in a variety of public, private, and governmental sectors including family support programs (Green & McAllister, 2002; Rogers et al., 2000), social programs (Chen & Rossi, 1983), educational programs (Bickman, 1987) substance abuse interventions (Rogers et al., 2000), and public service volunteer training (Rogers et al., 2000). Theory based evaluation is viewed as helpful for understanding why programs do or do not work, attributing outcomes to a given program, and making improvements to programs (Rogers et al., 2000). Theory based evaluation is also helpful in assisting policy makers, academic institutions, and other program developers with discriminating between program failure and theory failure if/when a program is not producing the intended results (Bickman, 1987).

**Theory Based Evaluation in this Study.** Rogers et al. (2000) assert that theory based evaluation outlines the theoretical or causal model (i.e., activity A will attain objective B to
influence process C) behind a program in order to guide how and why an evaluation is conducted. Putting this analogy into terms related to the present study, the theory this evaluation is based on is that requiring undergraduates to take an ‘I’ course (activity A) will expose students to other cultural perspectives (objective B) to help students understand other cultures (process C). In developing the present study, the institutional goals/theory behind the requirement of the ‘I’ course in the OSU undergraduate curriculum was explored. Though there are stated goals of the I requirement (see OSU Course Catalog, 2012 and/or ‘International Dimension Courses at Oklahoma State University’ section later in this paper), the goals of the program are somewhat ambiguous, the ways in which instructors accomplish these goals are not clear, and the intended outcome is not clearly defined. According to Chen and Rossi (1983), one goal of theory based evaluation is to help clarify the intended effects of programs and thus aid in selecting an outcome variable(s). Thus, in the present study, though ‘intercultural sensitivity’ is not stated as an outcome for the ‘I’ course requirement, the selection of this outcome is appropriate given the theory behind the requirement.

**Bennett’s Developmental Model of Intercultural Sensitivity (DMIS)**

As mentioned previously, intercultural sensitivity is the ability to “discriminate and experience relevant cultural differences” (Hammer et al., 2003, p. 422). Bennett’s (1984) Developmental Model of Intercultural Sensitivity (DMIS) is a model based on the ideas that 1) cultures differ in their views of the world; 2) people can and do perceive these differences as problematic and even threatening; 3) people employ a range of strategies to avoid “confronting the implications of fundamental difference” (p. 181); and 4) concepts must be internalized in order for development to take place. The DMIS model asserts that as people accept the differences between cultures and interpret events according to these differences, intercultural communication effectiveness increases (Bennett, 1984). Thus, intercultural sensitivity develops along a continuum: when individuals improve in their ability to subjectively understand and
experience cultural differences, their intercultural sensitivity (and in turn, intercultural competence) improves (Bennett, 1984).

**Six stages of development.** The DMIS (Figure 1) suggests a continuum of the development of intercultural sensitivity that is comprised of six stages, with each stage representing a different way to experience cultural differences: 1) denial, 2) defense, 3) minimization, 4) acceptance, 5) adaptation, and 6) integration. The model assumes that intercultural sensitivity increases as one moves from left to right on the continuum, with the stages on the leftmost part of the continuum being the most ethnocentric (i.e., understanding one’s own culture as the centermost of all cultures) and the stages on the right being the most ethnorelative (i.e., understanding culture only within the context of other cultures), and thus more interculturally sensitive (Bennett, 1984; Hammer et al., 2003). In this study, students were not evaluated to assess where they fall on the continuum; rather, the continuum is important because it supports the idea that intercultural sensitivity is developmental, can change, and is teachable.

![Figure 1: Bennett’s Developmental Model of Intercultural Sensitivity](image)

**DMIS and the idea of teaching intercultural sensitivity.** Many researchers (Bennett, 1984; Deardorff, 2006, 2011; Hammer et al., 2003) assert that intercultural sensitivity can be taught and learned, though doing so is complex and difficult because the concept of culture is complex and difficult to define. As one learns about other cultures and experiences and interprets cultural differences, he/she should move along the continuum in the DMIS to more ethnorelative
stages. Thus, helping individuals learn about cultural differences is not about requiring people to adapt to new cultures but rather to help them understand why people of different cultures act and react the way they do (Durocher, 2007). This is key to the present study, as mandatory courses have been added to general education requirements in higher education in hopes of exposing students to other cultures and helping them be more adept at navigating a global society. Because the DMIS suggests intercultural sensitivity can be taught and learned, it makes sense that the concept has been included in higher education curricula.

**General Education and Intercultural Sensitivity in Higher Education**

In higher education, “general education” or “gen ed” refers to a breadth of coursework “intended to impart common knowledge and intellectual concepts to students and to develop in them the skills and attitudes that an organization’s faculty believe every educated person should possess” (Higher Learning Commission, 2003, p. 1). The concept of general education has existed since at least 589-613 AD (Penn, 2011), though the courses included in general education programs vary according to the institution. Organizations such as the American Association of Colleges and Universities (AAC&U; 2012) have helped provide guidelines for higher education, while governing bodies of colleges and universities have set forth standards and requirements for general education across the United States.

The Higher Learning Commission (2003) noted that “effective general education helps students gain competence in the exercise of independent intellectual inquiry and also stimulates their examination and understanding of personal, social, and civic values” (p. 1). This is in line with Pascarella and Terenzini’s (2005) assertion that the college years have increasingly become a time for students to not only achieve cognitive and intellectual growth but also to develop psychosocial skills, moral reasoning, and professional competence. This, coupled with the assertion that “understanding and appreciating diverse cultures…[is] a foundation for most
careers” (Higher Learning Commission, 2003, p. 1), makes it easy to see how teaching students about intercultural sensitivity has made its way into curricula in today’s colleges and universities.

**Incorporation of Intercultural Sensitivity into Higher Education Curricula**

Deardorff (2011) notes that helping students become effective navigators of our integrated world system is a key responsibility of today’s universities, and intercultural competence, sensitivity, and diversity are at the forefront of the issues that must be addressed within student learning outcomes for today’s college students (Deardorff, 2011). College campuses are often diverse places where different cultures and beliefs mix. Thus, and the exposure to diversity that comes with attending college has piqued some students’ interest in international and multicultural issues (Bardhan, 2003), while other students have reported more ethnocentric attitudes toward the diversity of cultures they encounter (Barron & Dasli, 2010).

Because of this diverse environment, the focus of international education in college has changed from diplomacy and intercultural exchange to globalism and preparing students to function in an international and multicultural context (Lee & Rice, 2007). For most institutions, this is achieved through course curriculum and co-curricular activities (Deardorff, 2011). Deardorff (2011) noted:

This infusion of intercultural competence and global learning into courses entails finding multiple ways throughout a course to bring in diverse perspectives on issues, helping students begin to see from multiple cultural perspectives, using students’ diverse backgrounds within a course, and requiring students to have either a local cultural immersion or an education abroad experience (possibly through research, service learning, or internship, in addition to study) related to the major (p. 69).

**Study Abroad and Foreign Language Programs.** Consistent with Lee and Rice’s (2007) assertion that the focus of international education in college used to be centered around diplomacy and intercultural exchange, study abroad was a major way colleges and universities helped add intercultural sensitivity development opportunities to college curricula in previous
decades. Study abroad opportunities give students a chance to live, study, and/or work in another country and/or culture for an extended period of time, thus potentially giving the student a hands-on chance to develop intercultural sensitivity (and in turn, intercultural competence).

In addition to study abroad opportunities, foreign language requirements in college have often been tied to helping further cultural understandings among students (Price & Gascoigne, 2006; Su, 2011). Price and Gascoigne (2006) found that students were supportive of studying a foreign language in college to help them further cultural understandings, have greater success in their job/career, and broaden personal perspectives. However, as Durocher (2007) noted, “studying a foreign language does not, in and of itself” cause students to become culturally knowledgeable and astute (p. 155). Thus, just as in study abroad offerings, there has been a shift in foreign language courses to promote cultural sensitivity, competence, and understanding rather than simply transmitting information, facts, and stereotypes (Price & Gascoigne, 2006; Su, 2011).

In most current foreign language classes, students are often exposed to information about lifestyles, etiquette, customs, holidays, traditions, food, economic and social issues/values, education, religion, and superstition and have reported becoming more aware of and sensitive towards cultural differences because of this exposure (Su, 2011).

‘Internationalization At Home’ Programs. As international travel, security issues, and economic stability have changed, studying a foreign language or taking a study abroad course are no longer the only options for students to gain an international education. Currently, opportunities to develop intercultural sensitivity are provided to students in the classroom, as the focus of international education has shifted to preparing students to function in an international and multicultural context (Lee & Rice, 2007) without leaving their university’s campus. Harrison and Peacock (2010) assert that the idea of ‘internationalization at home’ programs was partially founded on the belief that sharing spaces with international students would help improve cultural skills and understandings, though this theory has not been consistently validated in the literature.
Harrison and Peacock (2010) suggest that managing the context in which students interact is important in order to ensure that intercultural encounters are “positive, meaningful, and non-threatening” (p. 897).

Helping college students develop intercultural understanding and appreciation on their own college campuses could lead to changing campus climates both in and out of the classroom. For example, Lee and Rice (2007) assert that international students are often subject to stereotyping, misperceptions, and criticism by American students, while American students have been perceived as arrogant, apathetic, and unwilling to understand other cultures (Bardhan, 2003; Lee & Rice, 2007). This means that the misperceptions go both ways--both domestic and international students face issues with misperceptions and misunderstandings of cultures. Further, students have reported significant anxiety about interacting with international students socially and academically (Harrison & Peacock, 2010). Chen (2002) reported that intercultural interactions were more likely to cause higher uncertainty and anxiety and lower quality of communication. Thus, the need to find common ground is an important aspect of intercultural curricula (Chen, 2002).

**The ‘International Dimension’ in Higher Education.** By the 1980s, intentionally incorporating an international component into coursework became more widely practiced and accepted in higher education (Torney-Purta, 1984). Presently, the term ‘international education’ has become a buzzword for colleges and universities, especially in the post-9/11 United States (Thomas, 2002). Horn, Hendel, and Fry (2007) assert that most research universities in the US have ample curricular resources to provide students with international experiences. However, not all universities require students to take these courses, nor do most universities with designated ‘international’ courses require students to take more than one of the classes (Horn et al., 2007). Yet, faculty, researchers, and administrators alike have agreed that having an entire course focused on international/multicultural issues is important (Bardhan, 2003). Students agree; in Bardhan’s (2003) study of college students who were public relations majors, participants
asserted that a special course devoted specifically to international/multicultural public relations would be more helpful to them than general intercultural communications classes.

However, while multicultural and international perspectives are increasingly being presented in the classroom, interest in such issues cannot be forced (Bardhan, 2003). In order for international/multicultural coursework to be effective, “the pedagogy needs to be lived and not simply talked about in the classroom. For this to happen, direct contact and immersion are necessary, as are instructors who are self-reflexive about their own backgrounds, sensitive to the cultural backgrounds of their students and open to constantly enhancing their own multicultural competence” (Bardhan, 2003, p. 171).

Universities have made a variety of attempts to help introduce an international component to undergraduate curricula. There is no agreed upon ‘correct’ way to ensure students receive training in intercultural sensitivity and/or competence. For some, the international dimension of higher education comes by way of ranking institutions based on the demographic makeup of the student body, scholar characteristics (e.g., number of students/faculty involved in the Fulbright program), the number of language and study abroad courses offered, and the expressed support of an institution’s administration (e.g., presence of an international emphasis in a mission statement, accessibility to programs via the university webpage, etc; Horn, et al., 2007). For others, the international component of education is more formally incorporated into the undergraduate curriculum. Institutions such as Oklahoma State University, the University of Wisconsin, Indiana University, the University of Kansas, and the University of Pennsylvania have attempted to categorize classes in order to demonstrate—and for some, require students to take—classes which incorporate an international dimension into the required undergraduate coursework. Regardless of the way the international dimension is presented, researchers have found that intercultural sensitivity training opportunities must be presented to students in a way that guides them through a process of discovery and meaning negotiation and allows them to
“conduct their own learning, discover their own answers, and create their own interpretations” (Su, 2010, p. 74).

Deardorff (2011) argues that ‘infusing’ intercultural competence and sensitivity throughout the curriculum does not mean students should only take one international course or completing one reading, experience, or lecture. It doesn’t ‘just happen’ by interacting with people from other cultures or learning about another culture (Deardorff, 2011), which is why giving students learning opportunities and meaningful domestic-international interactions is important to allow students to incorporate new ways of thinking into what they already know and believe. For some students, the connection to the material is essential, and the general educational requirements do not always allow them to select courses that would enhance their international/multicultural knowledge (Bardhan, 2003).

In addition to being a part of universities’ curricula, internationalization, intercultural competence, and intercultural sensitivity have been incorporated into the expressed general learning outcomes for students enrolled in institutions of higher education in the United States and around the world (Teichler, 2004). OSU is considered to be a research university, or one that offers a large array of undergraduate and graduate degrees and has extensive undergraduate and graduate programs (Siaya & Haward, 2003). Research universities are the most likely of all university types (i.e., community colleges, liberal arts colleges, etc.) to have expressed international competencies as a learning outcome for students (Siaya & Hayward, 2003). Further, these institutions are most likely to include internationalization in their mission statements and cite internationalization as a strategic priority of the institution (Siaya & Hayward, 2003). Thus, it is logical that international components are incorporated into general education requirements and expectations for undergraduates. In Oklahoma, general education requirements for undergraduates are set forth by the Oklahoma State Regents for Higher Education.
Overview of the Oklahoma Higher Education System

The Oklahoma State System of Higher Education was established on March 11, 1941, through the adoption of Article XIII-A, an amendment to the Oklahoma State Constitution (OSRHE, 2011b). This amendment requires that "all institutions of higher education supported wholly or in part by direct legislative appropriations shall be integral parts of a unified system to be known as The Oklahoma State System of Higher Education” (Oklahoma Constitution, Article XIII A, § 2). This amendment also provided for a “coordinating board of control for all State institutions,” thereby establishing the Oklahoma State Board of Regents for Higher Education.

The Oklahoma State Regents for Higher Education (OSRHE) is the governing body for the 25 colleges and universities within the state of Oklahoma. The nine members of OSRHE are each appointed by the state governor and confirmed by the state senate. The Regents are charged with prescribing standards of higher education to each institution, determining the functions and courses of study in each of the institutions to conform to the standards prescribed, granting degrees and other forms of academic recognition for the completion of the prescribed courses in all of such institutions, recommending to the State Legislature the budget allocations to each institution, and recommending to the Legislature proposed fees for all such institutions (OSRHE, 2011b, p. 2).

General Education Requirements in Oklahoma

In 1994, OSHRE outlined exactly what was expected of university students in the State of Oklahoma by standardizing general education requirements for all college students. In accordance with their responsibility to prescribe standards of higher education to each institution in Oklahoma, the OSRHE stated eight outcomes for general education programs in the state: 1) appreciating and understanding diverse cultures and heritages; 2) mastering multiple modes of inquiry, reasoning, and critical thinking; 3) effectively analyzing and communicating information; 4) recognizing the importance of creativity and values to the human spirit; 5) understanding
relationships within nature and science; 6) developing responsible, ethical, and engaged citizens; 7) promoting lifelong learning, wellness, and personal enrichment; and 8) adapting to a constantly changing global society (OSRHE, 2011a, p. 138). All institutions in the state must strive to include each of these outcomes in all general education programs.

While the OSRHE have the authority to determine the functions and course of study for general education (OSRHE, 2011b), the governing board for each university has the task of setting general academic policy, among other operational issues. The governing board for OSU (along with 11 other universities in the state) is the Oklahoma Agricultural and Mechanical (A&M) Colleges Board of Regents. In accordance with the Morrill Act of 1862 (7 U.S.C. § 301), the A&M Board of Regents is the governing body over all land grant A&M colleges in the state.

Because OSU is a land grant A&M college, students at OSU must take courses that fulfill both the requirements of the OSRHE as well as those set by the Oklahoma A&M Board. In addition to the general education outcomes outlined by OSRHE, the Oklahoma A&M Board has outlined the purposes of general education courses at OSU. These outcomes are to 1) construct a broad foundation for the student’s specialized course of study; 2) develop the student’s ability to read, observe, and listen with comprehension, 3) enhance the student’s skills in communicating effectively; 4) expand the student’s capacity for critical analysis and problem solving; 5) assist the student in understanding and respecting diversity in people, beliefs, and societies; and 6) develop the student’s ability to appreciate the function in the human and natural environment. (OSU, 2011, p. 1). These goals are similar and complimentary to the standards set forth by OSRHE, and they guide the undergraduate general education curriculum at OSU.

**General Education Requirements at Oklahoma State University**

General education requirements at OSU are centered on the commitment of the university to provide students with a solid, diversified general education (OSU Course Catalog, 2012). According to the OSU Course Catalog (2012), general education at OSU provides students
general knowledge, skills and attitudes conducive to lifelong learning in a complex society. Specifically, general education at OSU is intended to construct a broad foundation for the student’s specialized course of study; develop the student’s ability to read, observe and listen with comprehension; enhance the student’s skills in communicating effectively; expand the student’s capacity for critical analysis and problem solving; assist the student in understanding and respecting diversity in people, beliefs and societies; and develop the student’s ability to appreciate and function in the human and natural environment (OSU Course Catalog, 2012).

All OSU undergraduates are required to complete “at least 40 hours of general education courses including 6 hours of English composition, 3 hours of U.S. history, 3 hours of U.S. government, 6 hours of science (including a laboratory science), 6 hours of humanities, 3 hours of mathematics, and additional liberal arts and sciences courses as defined by the institution” (OSU Policies and Procedures, 2011, p. 1). These courses are mandatory for all OSU undergraduate students regardless of major, as required by OSRHE. General education courses are those that meet “the needs of students in all disciplines without requiring extensive specialized skills and satisfies all the criteria for a specific general education area” (OSU, 2011).

In order to help organize courses according to the OSRHE and Oklahoma A&M Board standards, general education courses at OSU have been given certain letter designations to indicate which state requirement the course meets. At OSU, the course designations ‘A’ (analytical and quantitative thought), ‘H’ (humanities), ‘S’ (social and behavioral sciences), and ‘N’ (natural sciences) all fulfill content areas outlined by OSRHE (and echoed in the Oklahoma A&M Board requirements). However, in addition to these four course designations; OSU has identified three other general education course designations that all undergraduates are required to take regardless of major: ‘D’ (diversity), ‘I’ (international), and ‘L’ (natural sciences lab). This study focused on general education courses designated as ‘I’, meaning they included an ‘international’ dimension.
International Dimension Courses at Oklahoma State University. In addition to the 40 hours of general education courses required by OSHRE, all OSU undergraduates must take at least one ‘I’ course as a general education requirement. Students may take more than one ‘I’ course (and the course requirements of some majors may cause this to happen), but most students intentionally seek out and enroll in one class to specifically meet the ‘I’ requirement. The ‘I’ dimension of the general education course requirements is required by the A&M Board of Regents and is unique to Oklahoma State University; other schools in the A&M system do not have an ‘I’ requirement. Though the incorporation of international education opportunities at OSU have existed since the post World War II era (OSU International Education and Outreach, 2012), the ‘I’ requirement first appeared in the general education requirements at OSU for the 1981-82 school year (OSU Course Catalog, 1981). The 1981-1982 OSU Course Catalog (1981) described the International Dimension as “three hours of credit in courses which foster understanding of, or the ability to communicate with, peoples and cultures of other countries” (p. 74). Subsequent publications of the OSU Course Catalog describe the ‘I’ dimension as a course that “simply requires each student to learn something about cultures and societies outside the United States” (OSU Course Catalog, 1986, p. 63).

According to the current OSU Course Catalog (2012), the goals of courses with an ‘I’ designation are to “prepare students to critically analyze one or more contemporary cultures external to the United States; understand how contemporary international cultures relate to complex, modern world systems; and demonstrate their understanding through written work that provides them the opportunity to enhance their writing skills” (p. 10). Presently, ‘I’ courses focus specifically on contemporary cultures outside the United States; this is a major distinguishing factor from other course designations, such as the ‘D’ (diversity), which focuses on historical cultures or socially constructed groups within the United States (OSU Course Catalog, 2012). The ‘I’ course may carry an additional general education designation (e.g., ANTH 3353 Cultural
Anthropology carries both an ‘I’ and an ‘S’ designation, but all students must take at least one ‘I’
course in order to meet this general education requirement and obtain their baccalaureate degree.

There are 104 OSU courses that carry the ‘I’ designation in over 30 academic
departments, spanning all six colleges within the University (OSU Office of the Registrar, 2011; see Appendix A). To qualify as an ‘I’ course, instructors must submit a ‘Request for General
Education Designation’ to the appropriate college curriculum committee as well as to the General
Education Advisory Council (GEAC; OSU Policy and Procedures, 2011). The course description,
along with the course syllabus, is then reviewed by GEAC to ensure that it meets the
qualifications for both general education curriculum (meaning the course meets the needs of
students in all disciplines without requiring extensive specialized skills) and satisfies all the
criteria for a specific general education area. The criteria for the ‘I’ general education area are as
follows (as outlined in the General Education Courses Area Designations Criteria and Goals,
OSU, 2011, p. 1):

1. Criteria
   
   a. Courses designated “I” emphasize contemporary—the current time in the
      context of the discipline—cultures outside the United States. Courses concerning
      ethnic and cultural minorities within the U.S. do not qualify.
   
   b. At least one-half of the course materials must relate to contemporary, not
      historical, cultures.

2. Goals
   
   a. Students will critically analyze one or more contemporary cultures external to
      the United States.
   
   b. Students will understand how contemporary international cultures relate to
      complex, modern world systems.
c. Students will demonstrate their understanding through written work that provides them the opportunity to enhance their writing skills; upper division “I” courses will include extensive written work.

**Evaluation of International Dimension Courses.** The effectiveness of all general education courses at OSU (including ‘I’ courses) in meeting the stated educational objectives of the University is assessed by the Committee for the Assessment of General Education (CAGE) under the supervision of the Department of University Assessment and Testing (UAT; OSU UAT, 2012). These general education assessments have been conducted for more than 10 years (OSU CAGE, 2010). CAGE is made up of six faculty members from various disciplines and colleges across the university and is responsible for “developing and implementing a plan for assessing general education” (OSU UAT, 2012). CAGE uses five assessment rubrics (see Appendix B) to evaluate general education outcomes within courses. CAGE members use these rubrics to assess students’ written communication, critical thinking, math problem solving, science problem solving, and diversity values through analysis of students’ written work.

Because there is no rubric specifically for the ‘I’ dimension, the assessment of the ‘I’ courses is currently carried out by using two of the five assessment rubrics: Critical Thinking and Diversity Values. The Critical Thinking rubric is designed to assess the University’s core value and stated learning outcome that “graduates will be able to critically analyze and solve problems” (OSU UAT, 2012). The Diversity Values rubric is designed to assess the University’s core value and stated learning outcome that “graduates will understand and respect diversity in people, beliefs, and societies” (OSU UAT, 2012). For purposes of clarification for assessment criteria for the rubric, CAGE operationalized the Diversity core value as follows:

- Respecting others includes demonstrating an interest in increasing one’s knowledge of others as well as applying that knowledge in interaction.
To value diversity of opinion is to consider all opinions in decision-making and problem-solving.

Freedom of expression occurs in a social and cultural environment that is supportive of the same. One should be aware of factors that lead to the suppression of ideas of inclusion (such as “hate speech”) as well as factors that encourage positive contributions to public discourse.

To value other ethnic and cultural backgrounds, one must appreciate the complexities of the same and understand that our interactions with, and perceptions of, others are informed by our conceptions of a wide variety of differences (such as notions of race, gender, ethnicity, religion, veteran status, nationality, religion, age, ability status, sexual orientation, etc.)

(OSU University Assessment and Testing, 2012)

To conduct this assessment of ‘I’ courses, members of CAGE and other selected faculty are select approximately 80-140 samples of student work from the designated courses to read and score (using the appropriate rubric) according to the core values of the university as well as four other sub-categories: content, organization, style and mechanics, and documentation (OSU CAGE, 2011). The results of these assessments are reported annually in the General Education Assessment Annual Report (OSU CAGE, 2010). This study seeks to add to the CAGE information by providing information specifically about student attitudes (measured as intercultural sensitivity) reported by the students themselves.

**Chapter Summary**

This literature review examined three general areas: 1) Globalism and Intercultural Sensitivity; 2) Theoretical Perspectives; and 3) General Education and Intercultural Sensitivity in Higher Education. This review examined the role of culture and the idea of a ‘global society’ in today’s world and the concepts of intercultural competence and intercultural sensitivity and how
they have become incorporated into the higher education system. This chapter provided a discussion of the theory based evaluation approach as well as a discussion of Bennett’s Developmental Model of Intercultural Sensitivity. Finally, this chapter provided an overview of general education at the university level, a discussion of how intercultural sensitivity has been incorporated into general education, an explanation of Oklahoma’s higher education system and OSU’s general education requirements, and an explanation of the ‘I’ course requirement at OSU.
CHAPTER III

METHOD

The purpose of this study was to evaluate the effectiveness of the ‘I’ course by measuring students’ intercultural sensitivity at the start and end of the semester in which the student takes the ‘I’ class. This study provided a formative, outcome-oriented evaluation that assessed the ‘I’ course requirement at Oklahoma State University (OSU). Specifically, this study was guided by the following research questions:

1) Do students’ intercultural sensitivity scores change after taking an ‘I’ course?

2) Are students’ intercultural sensitivity scores influenced by demographic variables such as age, gender, ethnicity, home country, classification in school, major, and previous intercultural experience?

3) Which student characteristics best predict intercultural sensitivity?

4) Which ‘I’ course characteristics best predict intercultural sensitivity?

To answer these questions, two groups of students at Oklahoma State University—students enrolled in ‘I’ courses and students who had never taken an ‘I’ course—were given a survey assessment that measured intercultural sensitivity twice during the Fall 2012 semester: once at the beginning of the semester (when classes first begin), and again at the end of the semester (as classes end). The students’ pre and post scores were compared in hopes of determining whether the mandatory ‘I’ course effectively influences students’ intercultural sensitivity.
This chapter is divided into five sections: 1) context of the study; 2) information about the sample; 3) data collection procedures; 4) information about the Intercultural Sensitivity Scale; and 5) data analysis plan.

**Context of the Study**

This evaluation was conducted at Oklahoma State University, a large Midwestern university in the United States. OSU is a land-grant university committed to the land grant mission of “advance[ing] knowledge, enrich[ing] lives, and stimulat[ing] economic development through instruction, research, outreach and creative activities” (OSU Course Catalog, 2012, p. 8). OSU’s student body is made up of over 34,000 students at five campuses (OSU Stillwater, OSU Oklahoma City, OSU Tulsa, OSU Institute of Technology, and OSU Center for Health Sciences in Tulsa). Approximately 66% of OSU students attend OSU Stillwater (OSU Institutional Research and Information Management (IRIM), 2012), which is the campus at which this study was conducted. In Fall 2012, approximately 74% of undergraduates at OSU were from Oklahoma, while 23% were from other states and 3% were from countries outside the United States (OSU IRIM, 2012). The undergraduate student population was 52% male and 48% female, and 24% of the undergraduate student body was of minority status (OSU IRIM, 2012). The undergraduate student body (N=19580) was made up of 27% freshmen, 23% sophomores, 25% juniors, and 26% seniors (OSU IRIM, 2012). In terms of ethnicity, approximately 75% of undergraduate students were Caucasian, while 5% were African American, 6% were Native American, 4% were Hispanic, 2% were Asian, <1% were Pacific Islander, 7% were multiracial, and 9% were unknown or of another (not listed) ethnicity (OSU IRIM, 2012). Full-time undergraduate enrollment in each of the six colleges at OSU Stillwater in Fall 2012 was as follows: College of Arts and Sciences—24.6%; Spears School of Business—19.6%; College of Engineering, Architecture, and Technology—17.8%; College of Agricultural Science and Natural Resources—11.2%; College of Education—9.2%; and Human Sciences—9.3% (OSU IRIM,
Additionally, 8.3% of the undergraduate student body enrolled through University Academic Services/the LASSO Center (OSU IRIM, 2012); these students either had not declared a major, or were alternatively admitted to the university.

OSU offers over 200 undergraduate and graduate degree programs (OSU Course Catalog, 2012), with the average undergraduate program requiring 120 hours of coursework. Regardless of major, all OSU undergraduates are required to complete “at least 40 hours of general education courses including 6 hours of English composition, 3 hours of U.S. history, 3 hours of U.S. government, 6 hours of science (including a laboratory science), 6 hours of humanities, 3 hours of mathematics, and additional liberal arts and sciences courses as defined by the institution” (OSU Policies and Procedures, 2011, p. 1). Undergraduates are also required to take at least one course each with university-assigned designations ‘D’ (diversity), ‘I’ (international), and ‘L’ (natural sciences lab). This study focused on general education courses designated as ‘I’, meaning they included an ‘international’ dimension; these courses emphasize contemporary courses outside the United States (OSU Course Catalog, 2012). There are 104 OSU courses that carry the ‘I’ designation in over 30 academic departments, spanning all six colleges within the University (OSU Office of the Registrar, 2011; see Appendix A).

Sample

Institutional Review Board approval was obtained to collect data for this study (see Appendix C). The sample for this study consisted of undergraduate students enrolled in an ‘I’ course at OSU Stillwater during the Fall 2012 semester. A list of all undergraduates enrolled in ‘I’ courses at OSU Stillwater during the targeted time frame was compiled from OSU’s Office of Institutional Research and Information Management (IRIM). Given the limited number of minors (persons under the age of 18) who are students, only domestic undergraduate students age 18 and older were contacted for this study. This also ensured that no assent for minors was necessary.
All qualifying students were contacted via email at their OSU email address and asked to participate in the study, and participation in the study was completely voluntary.

**Procedures**

The survey for this study was conducted online through Qualtrics, an online survey software package purchased by OSU. The evaluator built the survey (see Appendices D & E) through the online software. Students were provided with information about the study and given the opportunity to provide informed consent to participate in the study through the survey website before starting the survey. Further, because this study required pre- and post-test data, students were asked to enter their OSU email address at the start of the pre- and post-test surveys to allow the researcher to match individual responses on the pre- and post-test. This identifier was chosen because it was easy for participants to remember throughout the semester.

Qualifying students were contacted for participation in this study at two points during the Fall 2012 semester: once during late August/early September 2012 (baseline data phase) and again in late November/early December 2012 (posttest phase). During the baseline phase, students were emailed a link to the study website and asked to participate in the study. Students were sent one follow-up email to remind them to participate in the study. After the baseline data collection, students were not contacted again until the posttest phase. After students completed most of the course (at least 85% or 14 weeks), they were again emailed a link to the study website and asked to take the survey again. Students were sent one follow-up email to remind them to participate in the posttest phase of the study.

**Measure**

The measure used in this evaluation to assess intercultural sensivity is Chen and Starosta’s (2000) Intercultural Sensitivity Scale. The scale, along with reliability, validity, and advantages to using the scale, are discussed in the following sections.
Chen and Starosta’s (2000) Intercultural Sensitivity Scale (ISS)

The Intercultural Sensitivity Scale (ISS; Chen & Starosta, 2000) is a scale used to measure intercultural sensitivity in college students (see Appendix D). The construction and validation of the ISS occurred in three stages using college student samples (Chen & Starosta, 2000). First, a pre-study was conducted to generate items for the scale and determine the factor structure of the original 44-item version of the scale. Second, a study was conducted to evaluate the concurrent validity of the ISS. Lastly, a final study was conducted to evaluate the predictive validity of the ISS. Chen and Starosta (2000) originally hypothesized that the intercultural sensitivity scale had six dimensions: self esteem, self-monitoring, open-mindedness, empathy, interaction involvement, and suspending judgment. The original six-factor, 44 item measure was piloted among 414 college students, and, using principal axis factor analysis, Chen and Starosta (2000) reduced the scale to a five factor, 24 item measure that explained 37.3% of variance. Chen and Starosta (2000) suggested that future studies explore other sources that contribute to the variance in scores, such as age, gender, and educational level. Hence, this evaluation study took those factors into account. The five-factor model has been replicated in other studies (Chen, 2010; Fritz, Möllenberg, & Chen, 2002; Peng, 2006).

**Items and Subscales.** The ISS consists of 24 items and five subscales. Answers to each item are given using a five point likert scale where 1=strongly disagree, 2=disagree, 3=uncertain, 4=agree, and 5=strongly agree. Total scores on the ISS can range from 24-120, with higher scores suggesting a person is more interculturally sensitive. Because this evaluation was exploratory in nature, the overall total score (rather than individual subscale scores) was used in this study. However, information about each subscale is provided below.

The five subscales of the ISS are Interaction Engagement, Respect for Cultural Differences, Interaction Confidence, Interaction Enjoyment, and Interaction Attentiveness. The Interaction Engagement subscale measures feelings of participation when communicating in intercultural situations and consists of seven items (1, 11, 13, 21, 22, 23, 24; Chen & Starosta,
The Respect for Cultural Differences subscale assesses how participants orient to or tolerate their counterparts’ culture and opinion and consists of six items (2, 7, 8, 16, 18, 20; Chen & Starosta, 2000). The Interaction Confidence subscale measures participants’ confidence in cultural settings and consists of five items (3, 4, 5, 6, 10; Chen & Starosta, 2000). The Interaction Attentiveness subscale assesses participants’ efforts to understand what is going on in intercultural interactions and is made up of three items (9, 12, 15; Chen & Starosta, 2000). Finally, the Interaction Enjoyment subscale measures participants’ positive or negative reactions toward communicating with people from different cultures and is made up of three items (14, 17, 19; Chen & Starosta, 2000).

Reliability. In Chen and Starosta’s (2000) first two studies using the ISS, the measure was found to have high internal consistency, as the Cronbach’s alpha reliability coefficient was \(\alpha = .88\) and \(\alpha = .86\) respectively. In their 2005 study, Graf and Harland reported the overall alpha for the scale to be \(\alpha = .89\), and a recent study by Chen (2010) reported overall reliability for the scale to be \(\alpha = .88\). Subsequent studies (Dong, Day, & Collaço, 2008; Peng, 2006; Tamam, 2010) that used the scale also reported that reliability coefficients were high, but exact values were not reported.

Validity. During the development of the instrument, Chen and Starosta (2000) assessed the concurrent and predictive validity of the ISS. The ISS measure was found to be significantly correlated with five other scales [Cegala’s Interaction Attentiveness Scale (\(r = .20; p < .05\)), Duran’s Impression Rewarding Scale (\(r = .41; p < .05\)), Rosenberg’s Self-Esteem Scale (\(r = .17; p < .05\)), Lennon & Wolf’s Self Monitoring Scale (\(r = .29; p < .05\)), and David’s Perspective Taking Scale (\(r = .52; p < .05\); Chen & Starosta, 2000]. Each of these scales measure a trait or attitude found to be related to intercultural sensitivity; thus, a significant positive relationship between the ISS and these scales was expected and concurrent validity was established.

The ISS was found to have predictive validity. Individuals who scored high on the ISS were predicted to be “more effective in intercultural interactions and show a positive attitude
toward intercultural communication events” (Chen & Starosta, 2000, p. 11). Participants in Chen & Starosta’s (2000) validation study completed the Intercultural Effectiveness Scale (which assessed participant’s ability to function effectively in another culture) and the Intercultural Communication Attitude Scale (which assesses participants’ ability to effectively establish interpersonal intercultural relationships). Chen and Starosta’s (2000) prediction that students with high scores on the ISS would also have high scores on intercultural effectiveness and intercultural communication scales was confirmed. The Pearson product-moment correlation analyses showed the correlation between ISS and the Intercultural Effectiveness scale was r=.57 (p<.001), and the correlation between ISS and Intercultural Communication Attitude was r=.74 (p<.001); thus, the ISS has been found to be predictive of intercultural effectiveness and attitude towards intercultural communication.

**Advantages of ISS.** There are several advantages to using Chen and Starosta’s (2000) Intercultural Sensitivity Scale. First, the ISS is cost effective, as access to the scale is free. Second, the ISS has been found to be reliable (Chen, 2010; Chen & Starosta, 2000; Dong et al., 2008; Graf & Harland, 2005; Peng, 2006; Tamam, 2010), and the five-factor model has been replicated in other studies (Chen, 2010; Fritz et al., 2002; Peng, 2006). Further, the scale has been used with college student samples (Chen & Starosta, 2000; Tamam, 2010) which is the demographic that was surveyed in this evaluation. The ISS has been reported to be reliable and valid among samples with participants from the United States (Chen, 2010; Chen & Starosta, 2000; Dong et al., 2008), China (Peng, 2006), and Germany (Fritz et al., 2002). Finally, it has been suggested that the ISS is best used in Western cultures because the five-factor model has not been confirmed in non-Western contexts (Tamam, 2010); thus, the ISS is appropriate for use among students of a Western culture, such as those at OSU.

**Demographic and Intercultural Experience Information**

Consistent with Chen and Starosta’s (2000) suggestion that other sources such as age, sex, and educational level may contribute to the variance in intercultural sensitivity scores,
demographic information for each participant was also collected (see Appendix E). Tamam (2010) also suggested gathering demographic information about participants, including age, gender, race, religion, and parents’ information. In this study, demographic information included age, gender, country of birth, citizenship, ethnicity, religion, language(s) spoken, student classification status, major, and course information. Further, information about students’ intercultural experiences (such as traveling to/living in foreign country, parents’ information, attending cultural events, etc.) was gathered.

**Data Analysis Plan**

Data were analyzed using IBM SPSS Statistics software version 20.0. Reliability for the measure (total score $\alpha$) as well as descriptive statistics for the sample were calculated. Appropriate analytic techniques were applied to answer the research questions of the study, including t-tests, ANOVA, correlations, and multiple regression.

**Chapter Summary**

This chapter provided information regarding the context of the study, the sample, and data collection procedures. Further, this chapter provided an overview of the Intercultural Sensitivity Scale and participant demographics, as well as a data analysis plan.
CHAPTER IV

RESULTS

The purpose of this study was to evaluate the effectiveness of the ‘I’ course by measuring students’ intercultural sensitivity at the start and end of the semester in which the student takes the ‘I’ class. This study provided a formative, outcome-oriented evaluation that speaks to the ‘I’ course requirement at Oklahoma State University (OSU). Specifically, this study was guided by the following evaluation research questions:

1) Do students’ intercultural sensitivity scores change after taking an ‘I’ course?
2) Are students’ intercultural sensitivity scores influenced by demographic variables such as age, gender, ethnicity, home country, classification in school, major, and previous intercultural experience?
3) Which student characteristics best predict intercultural sensitivity?
4) Which ‘I’ course characteristics best predict intercultural sensitivity?

This chapter is divided into three sections. The first section describes the sampling procedures and response rate of the sample involved in this evaluation. The second section describes the demographic characteristics of the sample and preliminary statistical analyses. The third section outlines the statistical analyses used to answer each evaluation research question, along with the findings for each question/analysis. The chapter ends with a summary of the findings.
Sample

Email addresses of all OSU students enrolled in ‘I’ courses in Fall 2012 (n= 2655) and a random sample of OSU students who had never taken an ‘I’ course (n=2347) were obtained from OSU Institutional Research and Information Management (IRIM). The total potential sample for this evaluation was limited to 5,000 students per the guidelines of the OSU Office of Communications and the OSU Institutional Review Board (IRB).

Sampling in the Pre-Test Phase

All students identified through IRIM as qualifying for this study (N=5002) were sent an email inviting them to voluntarily participate in the study in early September 2012. The email contained a link to the pretest survey and demographic questions. Approximately one week later, students were sent a reminder email containing the same survey link. A total of 366 students (7.31%) responded to the pretest survey email. Of those students, 210 (57.4%) were enrolled in an ‘I’ course and 156 (42.6%) had never been enrolled in an ‘I’ course. Students who did not answer the survey questions at all (i.e., they clicked on the link to the survey site but did not click past the IRB consent screen) were removed from the dataset (n=107); thus, the data producing sample for the pretest phase of this evaluation was N=259 (5.2% of the invited sample). Of those students, 150 (57.9%) were enrolled in an ‘I’ course and 109 (42.1%) had never been enrolled in an ‘I’ course.

It is important to outline the issues that arose with using email as a way to invite subjects to participate in this study. All initial participation invitation emails and reminders were sent to students through the Qualtrics website. Qualtrics is the web-based software used to create the survey and collect student responses for this study. Sending emails through this website is a fast way to send a large number of emails and gives each student a unique link to the survey, thus simplifying the process of sending follow-ups and tracking responses. After observing a low
response rate to the initial emails and reminder emails that were sent by the Qualtrics website (<150 responses after sending out 5000 emails), the evaluator determined through a series of ‘test’ emails and consulting with an IT staff member and the IRB manager that the emails being sent from the website were most likely being filtered to the students’ junk mail folders rather than to their inboxes. After making this determination, the evaluator filed an IRB modification form to request permission from the IRB to resend the recruitment and follow up emails to the same subjects using a personal institutional email to ensure the emails were delivered through the university system and not an outside website. The IRB quickly approved the modification, and the evaluator resent the 5000 emails to students through her personal institutional email account, this time with a general rather than unique/individually personalized survey link. This resulted in more than 200 subsequent responses to the survey.

**Sampling in the Posttest Phase**

In late November 2012, all students who responded to the pretest (N=259) were sent an email inviting them to participate in the posttest phase of the study. Just as it did in the pretest phase, the email contained a link to the posttest survey; students were sent a reminder email containing the same survey link approximately one week later. A total of 129 students (49.8%) responded to the posttest survey email. Of those students that responded, 76 (58.9%) were enrolled in an ‘I’ course and 53 (41.1%) had never taken an ‘I’ course. Students who did not answer the survey questions at all (i.e., they clicked on the link to the survey site but did not click past the IRB consent screen) were removed from the database (n=14), as was one student who did not provide a valid email address (thus his/her answers post-test answers could not be matched to the pretest). The data producing sample for the posttest phase consisted of N=114 students (44% of students who completed the pretest). Of those students, 67 (58.8%) were enrolled in an ‘I’ course and 47 (41.2%) had never taken an ‘I’ course.
**Descriptive Information**

Participants in this evaluation consisted of 80 male (30.9%) and 168 female (64.9%) undergraduate students: 88 freshman (34%), 44 sophomores (17%), 54 juniors (20.8%), and 62 seniors (23.9%; see Table 1). The age of the participants ranged from 18 to 49 ($M=20.42$; $SD=3.863$), with 221 students (85.3%) between the ages of 18-22; 27 students (10.4%) were age 23 or older (11 students did not respond). The demographic information for students in this sample was similar to that of the overall undergraduate student population (see Table 1). In Fall 2012, the undergraduate student population was 52% male and 42% female and was made up of 27% freshmen, 23% sophomores, 25% juniors, and 26% seniors (OSU IRIM, 2012). The average age of this sample was 20.42, while the average age of the undergraduate student body in general was 21.80 (OSU IRIM, 2012). Compared to the undergraduate student body in general, there were fewer males and more females in this sample; however, the percentages of students by classification were similar to the student body as a whole, with this sample having a higher percentage of freshman. This is not surprising given that students who had never taken an ‘I’ course are likely to be lower classmen—the longer a student is in school (and thus closer to graduation), the greater the likelihood the student has probably taken an ‘I’ course.
| **Table 1**  
**Sample and Student Body Demographics** |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>This Sample (N=259)</strong></td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Ethnicity</td>
</tr>
<tr>
<td>Caucasian/White</td>
</tr>
<tr>
<td>African American</td>
</tr>
<tr>
<td>Native American</td>
</tr>
<tr>
<td>Hispanic</td>
</tr>
<tr>
<td>Asian/ Pacific Islander</td>
</tr>
<tr>
<td>Multiracial/Unknown/Other</td>
</tr>
<tr>
<td>Classification</td>
</tr>
<tr>
<td>Freshman</td>
</tr>
<tr>
<td>Sophomore</td>
</tr>
<tr>
<td>Junior</td>
</tr>
<tr>
<td>Senior</td>
</tr>
<tr>
<td>College</td>
</tr>
<tr>
<td>Arts and Sciences</td>
</tr>
<tr>
<td>Spears School of Business</td>
</tr>
<tr>
<td>CEAT</td>
</tr>
<tr>
<td>CASNR</td>
</tr>
<tr>
<td>Human Sciences</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>UAS/LASSO</td>
</tr>
</tbody>
</table>

*Note: Because of the inclusions of various student groups in the IRIM report, this number was taken from the table entitled “Enrollment by College, Ethnicity, and Gender Fall 2012” (IRIM, 2012; p. 11); this number represents students enrolled at OSU Stillwater minus graduate students, special graduate students, and professional students.

Most students were from the United States of America (n=244), with four students claiming another country of citizenship: Panama (n=1), Venezuela (n=1), France (n=1), and Mexico (n=1). Thirty-four students reported having parents from another culture (n=10 mother from another culture, n=13 father from another culture, and n=11 both parents from another culture), while the majority of participants (n=213) reported that neither of their parents were from a culture different from their own. Further, 33 students (12.7%) reported speaking a
language other than English fluently. Other languages spoken included Spanish, German, Cherokee, Mandarin Chinese, Tamil, French, and Vietnamese. Twenty students (7.7%) reported they had lived outside the United States for six months or more at least once in their lives, with the length of time living out of the US ranging from zero to 198 months ($M=3.02; SD=16.132$); the median number of months lived out of the US was 35 (see Table 2). In addition, 157 students (60.6%) reported they had traveled outside the US at least once, with the number of times traveled outside the US ranging from one to 14; the median number of times traveled outside the US was seven ($M=2.03; SD=2.723$).

<table>
<thead>
<tr>
<th>Summary of Traveling/Living Outside the United States</th>
<th>Traveled Outside US</th>
<th>Lived Outside US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of students</td>
<td>20 (7.7%)</td>
<td>157 (60.6%)</td>
</tr>
<tr>
<td>Range</td>
<td>traveled 1-14 times</td>
<td>0-198 months</td>
</tr>
<tr>
<td>M(SD)</td>
<td>2.03 (2.723)</td>
<td>3.02 (16.132)</td>
</tr>
<tr>
<td>Median</td>
<td>7 times</td>
<td>35 months</td>
</tr>
</tbody>
</table>

Most students self-identified their ethnicity as Caucasian ($n=187; 72.2$%), with nine students (3.5%) identifying as Asian or Pacific Islander, 14 (5.4%) as African American, 15 (5.8%) as Hispanic, 18 (6.9%) as Native American or Alaskan Native, and five (1.9%) as Other/Biracial (see Table 1). In addition, most students identified their religious affiliation as Christian ($n=191; 73.7$%), with 41 identifying as Christian-Catholic and 150 identifying as Christian-Protestant (see Table 3). Other religious affiliations included Buddhist ($n=5$), Church of Latter Day Saints ($n=3$), no religious affiliation ($n=41$), and other ($n=7$); 12 students did not provide an answer to this question.
Table 3

*Students’ Religious Affiliation Categorized Three Ways*

<table>
<thead>
<tr>
<th>Reported Religious Affiliation</th>
<th>N</th>
<th>(%)</th>
<th>Categorized into Four Groups</th>
<th>n (%)</th>
<th>Categorized into Two Groups</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christian-Catholic</td>
<td>41</td>
<td>16.6%</td>
<td>Christian-Catholic</td>
<td>41</td>
<td>Christian</td>
<td>191</td>
</tr>
<tr>
<td>Christian-Protestant</td>
<td>150</td>
<td>60.7%</td>
<td>Christian-Protestant</td>
<td>150</td>
<td>Non-Christian</td>
<td>56</td>
</tr>
<tr>
<td>Buddhist</td>
<td>5</td>
<td>2%</td>
<td>No religious affiliation</td>
<td>41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Church of Latter Day Saints</td>
<td>3</td>
<td>1.2%</td>
<td>Other</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No religious affiliation</td>
<td>41</td>
<td>16.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>28.3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>N=247*</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

*Note: 12 students (4.9%) did not provide their religious affiliation.

The participants in this evaluation represented all six colleges at OSU that offer undergraduate degrees: 94 (36.3%) from the College of Arts and Sciences, 39 (15.1%) from the Spears School of Business, 28 (10.8%) from the College of Engineering, Architecture, and Technology, 21 (8.1%) from the College of Human Sciences, 29 (11.2%) from the College of Education, and 27 (10.4%) from the College of Agricultural Sciences and Natural Resources (see Table 1). In addition, there were 21 students (8.1%) who had not declared a major and thus were not enrolled in a degree program through one of the colleges. Participating students represented 44 majors (including University Academic Services, or ‘undeclared’).

As mentioned previously, 150 students (57.9%) were enrolled in 34 different ‘I’ courses in the Fall 2012 semester (see Table F1 in Appendix F), while 109 students (42.1%) had never been enrolled in an ‘I’ course as of Fall 2012. Of the 150 students enrolled in an ‘I’ course, 90 were enrolled in their first ‘I’ course of their academic career in Fall 2012, while 60 had taken at least one other ‘I’ course before Fall 2012. The total number of ‘I’ courses taken by students ranged from zero to 10 (M=1.08; SD=1.494). Of the 34 ‘I’ courses students took, 26 were in the
College of Arts and Sciences, three were in the Spears School of Business, one in the College of Engineering, Architecture, and Technology, and one was in Human Sciences. No ‘I’ courses offered by the College of Education were taken in Fall 2012. Of the 150 students enrolled in an ‘I’ course, 36 were freshmen, 24 were sophomores, 34 were juniors, 50 were seniors (see Table 4); six students did not provide their classification. Of the 109 students who had never taken an ‘I’ course, 52 (47.7%) were freshmen, 20 (18.3%) were sophomores, 20 (18.3%) were juniors, and 12 (11%) were seniors; five students did not provide their classification.

Table 4
Classification of Students by ‘I’ Course Enrollment in Fall 2012

<table>
<thead>
<tr>
<th></th>
<th>Enrolled in an ‘I’</th>
<th>Never Taken an ‘I’ Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>36 (24%)</td>
<td>52 (47.7%)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>24 (16%)</td>
<td>20 (18.3%)</td>
</tr>
<tr>
<td>Junior</td>
<td>34 (22.7%)</td>
<td>20 (18.3%)</td>
</tr>
<tr>
<td>Senior</td>
<td>50 (33.3%)</td>
<td>12 (11%)</td>
</tr>
<tr>
<td>Did not answer</td>
<td>6 (4%)</td>
<td>5 (4.6%)</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>109</td>
</tr>
</tbody>
</table>

In addition to ‘I’ courses, information about students’ study abroad participation was collected. Of the 259 participants, 12 (4.6%) had taken at least one study abroad course. The total number of study abroad courses taken by students ranged from zero to three ($M=.07; SD=.35$). It should be noted that study abroad classes are not necessarily considered an ‘I’ course; of the 12 students who had participated in a study abroad course, two had never taken an ‘I’ course.

**Instrument Reliability**

The Intercultural Sensitivity Scale (ISS; Chen & Starosta, 2000; (see Appendix D) was used to measure intercultural sensitivity for college students in this sample. The overall Chronbach’s alpha reliability coefficient for this sample for the pre-test was $\alpha=.91$; the overall Chronbach’s alpha reliability coefficient for this sample for the post-test was $\alpha=.90$. This is consistent with Chen and Starosta’s (2000) first two studies using the ISS, as the measure was found to have high internal consistency ($\alpha=.88$ and $\alpha=.86$ respectively). Other studies have found
high overall reliability for the scale, with overall alphas reported to be $\alpha=.89$ (Graf & Harland, 2005) and $\alpha=.88$ (Chen, 2010).

**Evaluation Research Questions**

The following sections outline the findings with regard to analysis of data for each research question in this evaluation. First, preliminary analyses were conducted to determine if there were pre-existing differences between the two groups of students (those enrolled in an ‘I’ course versus those who had never taken an ‘I’ course). Following the preliminary analyses, the findings for each evaluation research question are presented.

**Preliminary Analyses to Test Pre-Existing Differences**

Determining whether there were significant differences between the two groups of students at the pre-test phase of this evaluation was important because change in intercultural sensitivity scores over the course of the semester (Research Question 1) could not be accurately assessed if the two groups were different from the start. In order to determine if there were differences in the pretest intercultural sensitivity scores for students based on their enrollment (or not) in an ‘I’ course, an independent samples t-test was conducted. There were no significant differences in the pretest scores for students enrolled in an ‘I’ course versus those that had never taken an ‘I’ course [$t(246)=2.023; p=.045$]. It should be noted that the alpha level was set to $p<.01$ for these tests due to suspicious results with the Levene’s Test for Homogeneity of Variances for the analyses.

**Evaluation Research Question 1**

The first research question in this evaluation was: Do students’ intercultural sensitivity scores change after taking an ‘I’ course? This question focuses particularly on the students enrolled in an ‘I’ course, as these courses are specifically designed to help students “understand and respect diversity in people, beliefs, and societies” (OSU UAT, 2012). The idea behind this
question is that if ‘I’ courses influence students’ intercultural sensitivity, a change in scores should be observed from the beginning of the semester (pre-test phase) to the end of the semester (posttest phase). To answer this question, a paired-samples t-test was conducted comparing the pretest and posttest scores on the Intercultural Sensitivity Scale (ISS) for students enrolled in an ‘I’ course. No significant differences were found between pre- and posttest scores for students enrolled in an ‘I’ class \[ t(62)=.934; p=.354 \].

Assessing score changes for students who had never taken an ‘I’ course. Though this research question was particularly focused on assessing change in intercultural sensitivity scores over the course of the semester specifically for students who were enrolled in an ‘I’ class, the finding that there was no significant change in scores for these students warrants exploring whether there were changes in intercultural sensitivity scores over the course of the semester for the other group of students in this study—those that had never taken an ‘I’ course. Changes in scores for these students could point to the influence of something other than the ‘I’ course on intercultural sensitivity over the course of the semester.

Keeping in mind that students are required to take an ‘I’ course to help prepare them to “critically analyze one or more contemporary cultures external to the United States” and “understand how contemporary international cultures relate to complex, modern world systems” (OSU Course Catalog, 2012; p. 10), it was worthwhile to determine if students who were not enrolled in these classes experienced any change in their intercultural sensitivity scores throughout the semester. To make this determination, a paired-samples t-test was conducted comparing the pretest and posttest scores on the Intercultural Sensitivity Scale (ISS) for students who had never taken an ‘I’ course; there were no significant differences between the pre- and posttest scores for these students \[ t(44)=.276; p=.784 \].

Assessing differences in posttest scores for all students. Given the findings that there were no significant changes in pre- to posttest scores for students enrolled in an ‘I’ course or for those who had never taken an ‘I’ course, one final analysis was conducted to determine if there
were significant differences between the posttest scores for the two groups. This final test further examined differences between the two groups of students, as no differences within the groups was found. The results of an independent samples t test determined that there were no significant differences in the posttest scores for students who enrolled in an ‘I’ course versus those that had never taken an ‘I’ course \( t(109)=.527; p=.599 \), indicating that there was no change in scores regardless of the designation of classes (‘I’ or not) the students took.

**Subsequent analyses.** Because no significant differences were found between or within the two groups and to further test the possibility of the influence of taking ‘I’ courses on ISS scores, the sample was divided into three groups: 1) students that had never taken an ‘I’ course, 2) students that had only taken one ‘I’ course, and 3) students that had taken more than one ‘I’ course. Scores for these groups were compared twice: once at the pretest phase and once at the posttest phase. These analyses were conducted 1) to examine whether there were differences between the three groups at the pretest phase (again, because differences at this phase would make it difficult to assess change over the course of the semester), and 2) to examine whether there were differences between the mean scores of each group at the end of the semester. The analysis at the posttest phase focused not only on whether the students took an ‘I’ course, but also whether the number of ‘I’ courses taken (none, one, or more than one) makes a difference in intercultural sensitivity scores.

**Analysis of pretest scores for the three groups.** For the pretest (N=248), there were 104 students in group one (students who had never taken an ‘I’ course), 86 students in group two (students that had only taken one ‘I’ course), and 58 students in group three (students that had taken more than one ‘I’ course; see Table 5). The result of the ANOVA test comparing the three groups’ mean pretest intercultural sensitivity scores was not significant \[ F(2, 245)=2.746; p=.066 \]. This finding supports the previous finding in the preliminary analyses that there were no differences in pre-test scores for the students in this sample.
Table 5
Pretest Score Descriptives by Enrollment Group

<table>
<thead>
<tr>
<th>Enrollment Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taken no ‘I’ Courses</td>
<td>104</td>
<td>93.36</td>
<td>11.69</td>
</tr>
<tr>
<td>Taken One ‘I’ Course</td>
<td>86</td>
<td>95.43</td>
<td>11.79</td>
</tr>
<tr>
<td>Taken More Than One ‘I’ Course</td>
<td>58</td>
<td>97.74</td>
<td>10.83</td>
</tr>
</tbody>
</table>

Note: N=248; F(2, 245)=2.746; p=.066

Analysis of post-test scores for the three groups. For the analysis of posttest scores
(N=111), there were 46 students in group one, 39 students in group two, and 39 students in group
three (see Table 6). The result of the ANOVA test comparing the three groups’ mean posttest
scores was not significant [F(2, 108)=.421; p=.657]. This finding supports the previous finding
that there were no differences in posttest scores for the students in this sample. This suggests
taking an ‘I’ course did not seem to affect students’ intercultural sensitivity scores; further, this
indicates that the number of ‘I’ courses a student has taken (none, one, or more than one) did not
seem to affect the scores.

Table 6
Posttest Score Descriptives by Enrollment Group

<table>
<thead>
<tr>
<th>Enrollment Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taken no ‘I’ Courses</td>
<td>46</td>
<td>96.37</td>
<td>8.37</td>
</tr>
<tr>
<td>Taken One ‘I’ Course</td>
<td>36</td>
<td>96.56</td>
<td>13.54</td>
</tr>
<tr>
<td>Taken More Than One ‘I’ Course</td>
<td>29</td>
<td>98.55</td>
<td>9.69</td>
</tr>
</tbody>
</table>

Note: N=111; F(2, 108)=.421; p=.657

Because no differences were found between or within any of the groups’ pre- and
posttest scores, only pretest scores were used for the remaining analyses of other evaluation

research questions in the study. This decision was made because the sample size was larger for the pretest (n=247) than for the posttest (n=114), thus increasing power.

**Evaluation Research Question 2**

The second research question in this evaluation was: Are students’ intercultural sensitivity scores influenced by demographic variables such as age, gender, ethnicity, home country, classification in school, major, and previous intercultural experience? To answer this question, student demographic variables were identified and the appropriate analysis (t-test or ANOVA) was conducted to test mean differences of pretest scores. The t-test and/or ANOVA tests were conducted for separately for each student demographic to provide a more detailed test of intercultural sensitivity for stakeholders. The student demographic variables identified were: student gender, student age, student ethnicity, student religious affiliation, whether the student had lived outside the US, whether the student had traveled outside the US, whether the student’s parent(s) were from another culture, student undergraduate classification, college student was enrolled in; number of ‘I’ courses taken, whether or not the student had taken a study abroad course, and the number of cultural events in which the student had participated. As mentioned earlier, due to no significant findings for Research Question 1, the score comparisons for all student demographic variables were computed using the students’ pretest scores on the ISS.

**Student gender.** Participants in this evaluation consisted of 80 male and 168 female undergraduate students. An independent samples t-test revealed there was no significant difference in the mean ISS scores for students based on gender \[ t(246)=-.819; p=.414 \].

**Student age.** The ages of students who participated in this study ranged from 18-49. Since the traditional age of college students is 18-22, the students’ age was coded into two groups: 1) traditional college age (18-22; n=221) and 2) students age 23 and older (n=27). An independent samples t-test revealed no significant difference in students’ mean ISS scores according to these two age groups \[ t(246)=-.654; p=.514 \]. Because no significant difference was found when dividing the students into two age groups, students’ age was then divided into six
groups to further explore differences in scores by age. The six age groups were: 1) students age 18 (n=71); 2) students age 19 (n=54); 3) students age 20 (n=41); 4) students age 21 (n=35); 5) students age 22 (n=20); and 6) students age 23 and older (n=27). A one-way ANOVA revealed no significant difference in student ISS scores by age \[ F(5, 242)=.471; \ p=.798 \].

**Student ethnicity.** Most students in this study self-reported their ethnicity as Caucasian (n=187); nine students identified themselves as Asian or Pacific Islander, 14 students as African American, 15 as Hispanic, 18 as Native American or Alaskan Native, and 5 as Other/Biracial. A one-way ANOVA test of these six groups revealed there was no significant difference in mean ISS scores for students by ethnicity \[ F(5, 242)=1.256; \ p=.284 \]. To further explore the possible effect of ethnicity on intercultural sensitivity scores, the sample was divided into two groups: Caucasian (n=187) and non-Caucasian (n=61). The results of the independent samples t-test revealed that there was no significant difference in intercultural sensitivity scores, even when the sample was divided into two groups \[ t(246)=-1.706; \ p=.089 \].

**Student religious affiliation.** In the original survey, students were given nine choices when asked to identify their religious affiliation: no religious affiliation, Buddhist, Christian-Catholic, Christian-Protestant, Church of Latter Day Saints, Hindu, Jewish, Muslim, and other--please specify. Most students identified their religious affiliation as Christian (n=191), with 41 identifying as Christian-Catholic and 150 identifying as Christian-Protestant (see Table 3). Other religious affiliations identified included Buddhist (n=5), Church of Latter Day Saints (n=3), no religious affiliation (n=41), and other (n=7); ‘other’ religious affiliations identified included traditional Native American (n=1), theist (n=1), spiritual but not religious (n=1), atheist (n=1), and universalist (n=1). For the first analysis, religious affiliation was divided into two groups: 1) Christian (Catholic or Protestant; n=191) and 2) Non-Christian (Buddhist, Church of Latter Day Saints, no religious affiliation, and other; n=56). Results of the independent samples t-test analysis revealed there was a significant difference in ISS scores based on religion \[ t(110.51)=-
3.987; \( p = .000 \)], with non-Christians having a higher mean score \( (M=99.82; SD=9.47) \) than Christians \( (M=93.72; SD=11.87) \).

Since a significant difference was found between the two religious groups in the first analysis, a second analysis was performed to further explore mean score differences by religious affiliation. Because no participant identified themselves as Hindu, Jewish, or Muslim, these groups were removed from the choices in the analysis. Further, the remaining six groups (Buddhist, Catholic, Protestant, Church of Latter Day Saints, no religious affiliation, and other) were recoded into four groups: Catholic, Protestant, Other, and no religious affiliation (with Buddhist and Church of Latter Day Saints recoded into the ‘other’ category). The results of the one way ANOVA revealed a significant difference in students’ ISS mean scores by religious affiliation \([F(3, 244)=4.491; p=.004; \text{ see Table 7}]\).

Table 7

<table>
<thead>
<tr>
<th>ISS Score Descriptives by Religious Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
</tr>
<tr>
<td>Christian-Catholic</td>
</tr>
<tr>
<td>Christian-Protestant</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>No religious affiliation</td>
</tr>
</tbody>
</table>

Note: \( N=247 \); The R-E-G-W-F post hoc was used and the results are represented with the different subscripts for each mean, where the means with letters of the same subscript are significantly different from one another.

The R-E-G-W-F post hoc was selected to explore the significant mean differences between the four groups. The R-E-G-W-F post hoc is a step down multiple comparison procedure for all
pairwise contrasts. It is a modification of the Student-Newman-Keuls post hoc and is a moderate test appropriate for pairwise contrasts with homogeneous variances; the R-E-G-W-F procedure allows for pairwise comparisons when one or more groups has a larger number of participants than others (Kirk, 2013). Because this sample had a large number of students who identified as Protestant (n=150) and the homogeneity of variances assumption was met for the four religious groups, this post hoc was most appropriate for this sample. The R-E-G-W-F post hoc analysis (see Table 7) revealed that there were significant mean differences between the ‘Catholic’ and ‘no religious affiliation’ groups (M=92.71 and M=99.07, respectively; p<.05), the ‘Catholic’ and ‘other’ groups (M=92.71 and M=101.87, respectively; p<.05); the ‘Protestant’ and ‘no religious affiliation’ groups (M=94.00 and M=99.07, respectively; p<.05); and the ‘Protestant’ and ‘other’ groups (M=94.00 and M=101.87, respectively; p<.05). There were no significant mean differences between the ‘Catholic’ and ‘Protestant’ groups (M=92.71 and M=94.00, respectively) and the ‘no religious affiliation’ and ‘other’ groups (M=99.07 and M=101.87, respectively).

Taken together, these results indicate that the two Christian groups in this sample (Catholic and Protestant) did not differ from each other with regard to intercultural sensitivity scores, but they did have significantly different mean scores when compared to students who identified with other religious affiliations. Further, the two ‘other’ categories (‘other’ and ‘no religious affiliation’) had significantly higher intercultural sensitivity scores when compared to the two Christian groups individually but did not differ from each other. These findings support the previous finding that non-Christians had higher intercultural sensitivity scores than Christians.

**Living outside the US.** To test mean differences between students who had lived outside the US versus those who had not, the participants in this evaluation were divided into two groups: 1) students who indicated they had lived outside the US for at least six months at some point in their lifetime (n=20) and 2) students who had never lived outside the US (n=227). An independent samples t-test showed there was no significant difference in mean ISS scores for
students based on whether or not they had lived outside the US \( t(245)=1.141; p=.255 \). See Table G1 in Appendix G for a list of countries in which students had lived.

**Traveling outside the US.** To test mean differences between students who had traveled outside the US versus those who had not, participants were divided into two groups: 1) those who indicated they had traveled to at least one other country outside the US (n=157), and 2) those who had never left the US (n=90). An independent samples t-test analysis revealed there was a significant difference in mean ISS scores for students based on whether or not they had traveled outside the US \( t(245)=2.309; p=.022 \), with students who had traveled outside the US having a higher mean score \( M=96.39; SD=.92 \) than students who had never traveled outside the US \( M=92.87; SD=1.22 \). See Table G1 in Appendix G for a list of countries to which students had traveled.

**Parent culture.** In the demographics section of the pretest survey, students were asked to identify whether their mother, father, or both parents were from a culture different from their own. Students were divided into two groups to test mean differences between students who reported one or both parents were from another culture (n=34) versus those with neither parent from another culture (n=213). An independent samples t-test analysis showed there were no significant differences between the two groups’ mean ISS scores \( t(245)=1.776; p=.077 \).

To further explore differences based on parent culture, the students were divided into four groups: 1) neither parent was from another culture (n=), 2) only the student’s mother was from another culture; 3) only the student’s father was from another culture, and 4) both parents were from another culture. The ANOVA result indicated that there was no significant difference in ISS scores among the four groups \[ F(3, 243)=1.634; p=.182 \].

**Student undergraduate classification.** The sample for this evaluation consisted of 88 freshman, 44 sophomores, 54 juniors, and 62 seniors. A one-way ANOVA analysis revealed that there was no significant difference in mean ISS scores for students based on classification \[ F(3, 244)=.837; p=.475 \].
College. The participants in this evaluation represented six colleges at OSU: 94 (36.3%) from the College of Arts and Sciences, 39 (15.1%) from the Spears School of Business, 28 (10.8%) from the College of Engineering, Architecture, and Technology, 21 (8.1%) from the College of Human Sciences, 29 (11.2%) from the College of Education, and 27 (10.4%) from the College of Agricultural Sciences and Natural Resources (see Table 1). In addition, there were 21 students (8.1%) who had not declared a major and thus were not enrolled in a degree program through one of the colleges. The results of the one way ANOVA test revealed no significant difference in students’ ISS scores based on college affiliation \( [F(6, 241)=1.475; \ p=.187] \).

Number of \('I'\) courses taken. Based on the findings in Research Question One, the variable ‘number of ‘I’ courses a student has taken’ consisted of three groups: 1) students that had never taken an ‘I’ course \((n=104)\), 2) students that had only taken one ‘I’ course \((n=86)\), and 3) students that had taken more than one ‘I’ course \((n=58)\). The result of the ANOVA test comparing the three groups’ mean pretest scores was not significant \([F(2, 245)=2.746; \ p=.066]\). Thus, there was no significant difference among students’ ISS scores based on the number of ‘I’ courses the students have taken.

Study abroad participation. Information about students’ study abroad participation was collected. Of the 259 participants, 12 (4.6%) had taken at least one study abroad course. It should be noted that study abroad classes are not necessarily considered an ‘I’ course; of the 12 students who had participated in a study abroad course, two had never taken an ‘I’ course. Students’ study abroad participation was coded as 1=Yes (the student had taken at least one study abroad course) or 2=No (the student had not taken a study abroad course). The results of the independent samples t-test revealed that the mean ISS score of students who had taken a study abroad class \((M=102.67)\) was significantly higher than the mean score for students who had not taken a study abroad class \([(M)=94.71]; \ t(246)=2.334; \ p=.020\).
**OSU cultural event participation.** Students were asked to identify the number of cultural events they had participated in at OSU; examples of such events include cultural dinners (such as Korean Cultural Dinner or Caribbean Cultural Dinner, etc), cultural performances (such as Diwali Night or Malaysian Drum Troupe performance), cultural expositions (such as the OSU International Expo or the International Students Organization (ISO)’s Culture Night), an ISO meeting (such as a meeting for the Indian Student Association or the African Student Association), or other—please specify. The number of events students reported participating in ranged from zero to five, with 154 students reporting no participation in any event, 44 students participating in one event, 26 in two events, 10 in three events, 11 in four events, and two in five events. Students were divided into four groups based on the number of events they participated in: Group 1) students who participated in no cultural events (n=154); Group 2) students who participated in one cultural event (n=44); Group 3) students who participated in 2-3 cultural events (n=36); and Group 4) students who participated in 4-5 cultural events (n=13; see Table 8). Results of the one-way ANOVA revealed there was a significant difference between the mean scores of the groups \[F(3, 243)=4.983; \ p=.002\]. A Tukey HSD post-hoc test revealed there was a significant difference \(p=.003\) between students who had participated in no events \(M=93.65\) versus those who participated in 4-5 events \(M=105.15\). There was also a significant difference \(p=.024\) between students who had participated in one event \(M=94.91\) and students who participated in 4-5 events. There was no significant difference between any other combination of group comparisons. Taken together, these results indicated that participating in more cultural events (at least four) seemed to have a significant influence on intercultural sensitivity.
Table 8

*ISS Score Descriptives by Cultural Event Participation*

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Events (none)</td>
<td>154</td>
<td>93.65&lt;sub&gt;a&lt;/sub&gt;</td>
<td>11.90</td>
</tr>
<tr>
<td>One Event</td>
<td>44</td>
<td>94.91&lt;sub&gt;b&lt;/sub&gt;</td>
<td>10.19</td>
</tr>
<tr>
<td>2-3 Events</td>
<td>36</td>
<td>97.94</td>
<td>11.20</td>
</tr>
<tr>
<td>4-5 Events</td>
<td>13</td>
<td>105.15&lt;sub&gt;a,b&lt;/sub&gt;</td>
<td>8.40</td>
</tr>
</tbody>
</table>

Note: N=247; The Tukey HSD post hoc was used and the results are represented with the different subscripts for each mean, where the means with letters of the same subscript are significantly different from one another.

**Interactions among demographic variables.** Though an extensive review of the literature was conducted, no specific variables were identified as having particular influence on intercultural sensitivity. Because the literature did not point to any specific combination of variables to explore, examining each of these demographic variables individually was determined to be appropriate to give the stakeholders of this evaluation information about which student characteristics (in addition to the courses they take) may influence intercultural sensitivity scores. However, given the pragmatics of conducting research in the social sciences, it is realistic to assume that a combination of independent variables work together (i.e., have an interaction effect) to influence the dependent variable. Thus, the researcher consulted with several faculty and staff members at the university to help determine what combination of variables made sense to explore to provide the most useful information for the stakeholders. Based on these consultations, it was determined that an exploration of the following combinations of variables for an interaction effect on intercultural sensitivity scores should be conducted: 1) parent culture, living outside the US, and traveling outside the US; 2) parent culture and OSU cultural event...
participation; 3) ethnicity and OSU cultural event participation; and 4) students’ college enrollment and the number of ‘I’ courses taken.

**Interaction 1.** The first interaction explored was a three factor between subjects ANOVA comparing mean intercultural sensitivity scores by parent culture, living outside the US, and traveling outside the US. The results of the ANOVA (see Table 9) indicated that there was a significant difference in intercultural sensitivity scores for the lived outside the US x traveled outside the US two way interaction \[F(1, 240)=8.62; p=.0037\]. This significant interaction indicated that the effect of traveling outside the United States on intercultural sensitivity scores depended on whether or not the student had lived outside the US (see Table 10 and Figure 1). For those students who had lived outside the US, intercultural sensitivity scores were similar regardless of whether they had traveled outside the US \((M=97.58)\) or not \((M=96.22)\). However, for students who had never lived outside the US, intercultural sensitivity scores were significantly higher for those that had traveled outside the US \((M=105.00)\) than for those who had not traveled out of the country \((M=92.73)\). No other interaction effects in this analysis were significant.

Table 9
Analysis of Variance for ISS Scores by Parent Culture, Living Outside the US, and Traveling Outside the US

<table>
<thead>
<tr>
<th>Interaction</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent Culture</td>
<td>1</td>
<td>345.65</td>
<td>2.62</td>
<td>.106</td>
</tr>
<tr>
<td>Living Outside the US</td>
<td>1</td>
<td>9363.62</td>
<td>71.06</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Traveling Outside the US</td>
<td>1</td>
<td>1008.497</td>
<td>7.65</td>
<td>.006</td>
</tr>
<tr>
<td>Parent Culture x Lived Outside US</td>
<td>1</td>
<td>462.245</td>
<td>3.51</td>
<td>.062</td>
</tr>
<tr>
<td>Parent Culture x Traveled Outside US</td>
<td>1</td>
<td>72.289</td>
<td>.55</td>
<td>.459</td>
</tr>
<tr>
<td>Lived Outside US x Traveled Outside US</td>
<td>1</td>
<td>1135.528</td>
<td>8.62</td>
<td>.004</td>
</tr>
<tr>
<td>Parent Culture x Lived Outside US x Traveled Outside US</td>
<td>1</td>
<td>83.101</td>
<td>.63</td>
<td>.428</td>
</tr>
</tbody>
</table>

60
Table 10
Means for Parent Culture x Lived Outside US Interaction

<table>
<thead>
<tr>
<th>Lived Outside US</th>
<th>Traveled Outside the US</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
<td>97.58</td>
</tr>
<tr>
<td>No</td>
<td>105.00</td>
</tr>
</tbody>
</table>

Figure 2: Lived Outside the US x Traveled Outside the US Interaction Graph

Interaction 2. For the second interaction analysis, a two factor between subjects ANOVA was conducted to explore the differences in mean intercultural sensitivity scores by parent culture and OSU cultural event participation (see Table 11). The results of the ANOVA indicated that there was not a significant difference in ISS scores for the parent culture x OSU cultural event participation interaction \[F(3, 239)=.389; p=.761\]. Further, the main effect of parent culture was not significant \[F(1, 239)=1.059; p=.304\]. However, the main effect of number of cultural events participated was significant \[F(3, 239)=3.323; p=.020\]. A Tukey HSD post-hoc
test revealed there was a significant difference ($p=.003$) between students who had participated in no events ($M=93.65$) versus those who participated in 4-5 events ($M=105.15$; see Table 11). There was also a significant difference ($p=.024$) between students who had participated in one event ($M=94.91$) and students who participated in 4-5 events. There was no significant difference between any other combination of group comparisons. Taken together, these results reiterated the previous finding that participating in more cultural events (at least four) seemed to have a significant influence on intercultural sensitivity.

Table 11

*Summary of ANOVA for ISS Scores by Parent Culture and Cultural Event Participation*

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent Culture</td>
<td>1</td>
<td>137.27</td>
<td>1.059</td>
<td>.304</td>
</tr>
<tr>
<td>Cultural Event Participation</td>
<td>3</td>
<td>430.54</td>
<td>3.323</td>
<td>.020</td>
</tr>
<tr>
<td>Parent Culture x Cultural Event Participation</td>
<td>3</td>
<td>50.44</td>
<td>.389</td>
<td>.761</td>
</tr>
</tbody>
</table>

*Interaction 3.* A two factor between subjects ANOVA was conducted to explore the difference in mean intercultural sensitivity scores by ethnicity and OSU cultural event participation. The results of the ANOVA indicated that there was not a significant difference for the two way interaction [$F(12, 226)=1.160; p=.313$]. Further, the main effects of ethnicity and OSU cultural events were not significant [$F(5, 226)=.567; p=.725$ and $F(3, 226)=1.806; p=.147$ respectively].

*Interaction 4.* Finally, a two factor between subjects ANOVA was run exploring the differences in mean intercultural sensitivity scores by students’ college enrollment and the number of ‘I’ courses taken. The results of the ANOVA indicated that there was not a significant difference in intercultural sensitivity scores for the interaction effect of students’ college enrollment x the number of ‘I’ courses taken [$F(12, 227)=.786; p=.665$]. Further, the main effects
of students’ college enrollment and the number of ‘I’ courses taken were also not significant [F(6, 227)=.589; \( p=.739 \) and F(2, 227)=1.484; \( p=.229 \) respectively].

**Evaluation Research Question 3**

The third research question in this evaluation was: Which student characteristics (as identified through ANOVA analysis) best predict intercultural sensitivity? This question focused specifically on the extent to which various student characteristics (as discussed in Research Question 2) were related to intercultural sensitivity scores. First, to answer this question, correlational indices were calculated to explore the relationships between student characteristics and ISS scores. The variables chosen for the correlation analyses were based on the findings from Research Question 2 as well as through personal discussions with the previously noted content specialists. The following student characteristic variables were included in the correlational analyses: number of ‘I’ courses taken, number of study abroad courses taken, number of times traveled outside the US, number of cultural events participated in, student age, student classification, number of times lived outside the US, gender, ethnicity, and religious affiliation.

Bivariate correlations were calculated for the quantitative variables (see Table 12), while point biserial correlations were calculated for the dichotomous categorical variables (see Table 13). Results of the bivariate correlations indicated that the number of ‘I’ courses taken \( (r=.152; \ r^2=.023) \) and number of study abroad courses taken \( (r=.145; \ r^2=.021) \) were significantly positively correlated with ISS scores at the \( p<.05 \) level, while number of times traveled outside the US \( (r=.186; \ r^2=.035) \) and number of cultural events participated in \( (r=.238; \ r^2=.057) \) were significantly positively correlated with ISS scores at the \( p<.01 \) level. Student age, student classification, and number of times lived outside the US were not significantly correlated with ISS scores.
Table 12

*Bivariate Correlations

<table>
<thead>
<tr>
<th>zahllich</th>
<th>r² shared variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of ‘I’ Courses Taken</td>
<td>.152*</td>
</tr>
<tr>
<td>Number of Study Abroad Courses Taken</td>
<td>.145*</td>
</tr>
<tr>
<td>Number of Times Traveled Outside US</td>
<td>.186**</td>
</tr>
<tr>
<td>Number of Cultural Events Attended</td>
<td>.238**</td>
</tr>
<tr>
<td>Age</td>
<td>.113</td>
</tr>
<tr>
<td>Classification</td>
<td>.070</td>
</tr>
<tr>
<td>Number of Times Lived Outside US</td>
<td>.042</td>
</tr>
</tbody>
</table>

*p<.05; **p<.01

The point biserial correlation coefficient is a special case of the bivariate correlation where one variable is categorical and dichotomous and the other variable is quantitative. The point biserial correlation was the best relational index to use for the student characteristic variables of gender, ethnicity, and religious affiliation, as these variables could be coded into logical dichotomies based on the analyses from Research Question 2. Gender was divided into male and female; ethnicity was divided into Caucasian and non-Caucasian, and religious affiliation was divided into Christian and non-Christian. The results of the point biserial correlation calculations indicated that religious affiliation ($r_{pb} = .220; r_{pb}^2 = .048$) was significantly correlated with intercultural sensitivity scores at the $p = .01$ level; this positive point biserial correlation indicates being non-Christian (coded as 1, vs. Christian coded as 0) was correlated with higher intercultural sensitivity scores. Gender and ethnicity were not significantly correlated with ISS scores.

Table 13

*Point Biserial Correlations*

<table>
<thead>
<tr>
<th>zahllich</th>
<th>ISS Scores</th>
<th>$r_{pb}^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.052</td>
<td>--</td>
</tr>
<tr>
<td>Ethnicity (dummy coded)</td>
<td>.108</td>
<td>--</td>
</tr>
<tr>
<td>Religious Affiliation (dummy coded)</td>
<td>.220**</td>
<td>.048</td>
</tr>
</tbody>
</table>

*p<.05; **p<.01

Note: The point-biserial correlation is mathematically the same as the Pearson correlation; therefore interpreting $r^2$ is appropriate (Linacre, 2008).
Based on the results of the correlation analyses, multiple regression was used to assess which student characteristics best predicted intercultural sensitivity. The variables with significant correlations in step one above were used as predictors in the multiple regression analysis. The number of ‘I’ courses taken, number of study abroad courses taken, number of times traveled outside the US, and number of cultural events participated in were all continuous variables. However, religious affiliation was a categorical variable; thus, in order to use the categorical variable as a predictor, student’s religious affiliation was dummy coded. As described in Cohen, Cohen, West, and Aiken (2003), when assigning numbers for dummy coding, the reference group should be coded as ‘0’, while the comparison group should be coded as ‘1’. For religious affiliation, ‘Christian’ was determined to be the reference group, as it represented the majority affiliation for this sample (and is consistent with the majority affiliation for the state and region in which the university is located). All other religious affiliations were coded as ‘1’ for the comparison group, as non-Christian is the minority religious affiliation group for this sample.

Multiple regression analysis determined that ISS scores did vary as a function of the number of ‘I’ courses taken, number of study abroad courses taken, number of times traveled outside the US, number of cultural events in which the student participated, and student’s religious affiliation (see Table 14). Taken together, these predictors accounted for about 11.1% ($R^2$) of the variability in ISS scores [$F(5, 233)=5.834; p=.000$]. Results from this analysis indicated that although the variable set significantly contributed to predicting ISS scores, only the number of times traveled outside the US [$t(233)=1.990; p=.048$] and student’s religious affiliation [$t(233)=3.542; p=.000$] were significant individual predictors of ISS scores. Relatively speaking, in this set of predictors, traveling outside the US ($\beta=.128; p=.048$) and the student’s religious affiliation ($\beta=.220; p=.000$) seemed to be the best predictors of ISS score (note that the b weight for religious affiliation is positive, and ‘Christian’ was coded as ‘0’). Further, it was evident from the semipartial correlations (which explain the unique portion of the variance in ISS scores
attributed to each predictor) that religious affiliation explained more of the variance in ISS scores than any other predictor.

Table 14
Summary of Multiple Regression Analysis for Student Characteristics and ISS Scores

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE(B)</th>
<th>β</th>
<th>t</th>
<th>p</th>
<th>part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of ‘I’ Courses Taken</td>
<td>.600</td>
<td>.526</td>
<td>.078</td>
<td>1.139</td>
<td>.256</td>
<td>.070</td>
</tr>
<tr>
<td>Number of Study Abroad Taken</td>
<td>2.407</td>
<td>2.115</td>
<td>.076</td>
<td>1.138</td>
<td>.256</td>
<td>.070</td>
</tr>
<tr>
<td>Number of times traveled outside US</td>
<td>.545</td>
<td>.274</td>
<td>.128</td>
<td>1.990</td>
<td>.048</td>
<td>.123</td>
</tr>
<tr>
<td>Number of Cultural Events Attended</td>
<td>-1.888</td>
<td>1.576</td>
<td>-.079</td>
<td>-1.198</td>
<td>.232</td>
<td>-.074</td>
</tr>
<tr>
<td>Religious Affiliation</td>
<td>6.047</td>
<td>1.707</td>
<td>.220</td>
<td>3.452</td>
<td>.000</td>
<td>.219</td>
</tr>
</tbody>
</table>

Note: $R^2=.111$; $F(5, 233)=5.834; p=.000$

**Evaluation Research Question 4**

The fourth research question in this evaluation was: Which ‘I’ course characteristics best predict intercultural sensitivity? Whereas Evaluation Research Question 3 focused on the student characteristics (such as demographic factors) that may predict intercultural sensitivity, this research question focused specifically on the characteristics of the ‘I’ courses students took as a predictor of intercultural sensitivity. Course characteristics include the level of the course (i.e., 1000, 2000, 3000, 4000; where the higher the course number the more advanced the course), the course prefix (e.g., GEOG, BADM, SPAN; representing the academic department to which the course belongs), and the course college (the college in which the department that offers the course is housed).

Students were enrolled in 34 different ‘I’ courses in Fall 2012 representing five of the six colleges in the university (see Table F1 in Appendix F). Because of the large number of categories (colleges and courses) among the predictors, the two categorical variables in this analysis were coded using criterion coding. In criterion coding, a coded variable is created in
which “the coded value for each case on the criterion variable is the mean of the category that includes that case as a number” (Starkweather, n.d., p. 6).

Multiple regression analysis determined that ISS scores did vary as a function of course characteristics (course level, prefix, and college; see Table 15). Taken together, these predictors accounted for 13.1% ($R^2$) of the variability in ISS scores ($F(2, 141)=10.626; p<.01$). Results from this analysis indicated that although the variable set significantly contributed to predicting ISS scores, only the course prefix (i.e., representing the academic department to which the course belongs) was a significant individual predictor of ISS scores [$t(140)=3.847; p=.000$]. Course prefix explained more of the variance in ISS scores than any other predictor (see Table 15).

Table 15

<table>
<thead>
<tr>
<th>Summary of Multiple Regression Analysis for Course Characteristics and ISS Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>'I' Course Level</td>
</tr>
<tr>
<td>'I' Course College</td>
</tr>
<tr>
<td>'I' Course Department/Prefix</td>
</tr>
</tbody>
</table>

Note: $R^2=.131; F(2, 141)=10.626; p<.01$

Additional Analyses

Though not included in the proposed evaluation research questions for this study, one final group of analyses was conducted to compare student responses on five questions from the posttest that asked students to think about the extent to which they attributed the classes they took in Fall 2012 to helping them with several intercultural experiences. The five questions asked of the students were:

1) On a scale of 1-10 (with 1 being ‘not at all’ and 10 being ‘very much’), to what extent do you attribute your opinion of other cultures to the classes you took this semester?
2) On a scale of 1-10 (with 1 being ‘not at all’ and 10 being ‘very much’), to what extent did the classes you took this semester encourage you to have interactions with people from cultures other than your own?

3) On a scale of 1-10 (with 1 being ‘not at all’ and 10 being ‘very much’), to what extent did the classes you took this semester encourage you to participate in activities with people from cultures other than your own?

4) On a scale of 1-10 (with 1 being ‘not at all’ and 10 being ‘very much’), to what extent would you say the classes you took this semester improved your ability to work with people from other cultures?

5) On a scale of 1-5, how would you say the courses you took this semester changed the way you think about people from other cultures?

For the first analysis, independent t-tests were conducted for each question comparing the answers of students enrolled in an ‘I’ course (n=66) to those of students who had never taken an ‘I’ course (n=46; note that N=112, as these questions were asked only at the posttest). Independent t-tests were chosen as the most appropriate analysis because each question is uniquely different (i.e., there was no reason to assume answers to one question were dependent on the answers to another).

Results of the t-tests revealed there were no significant differences in the answers of students for any of the first four questions (see Table 16). For question one (to what extent do you attribute your opinion of other cultures to the classes you took this semester?), the mean answer for students enrolled in an ‘I’ course was $M=4.35$, and the mean for students who had never taken an ‘I’ course was $M=3.80$ [t(110)=1.053; p=.295]. For question two (to what extent did the classes you took this semester encourage you to have interactions with people from cultures other than your own?), the mean answer for students enrolled in an ‘I’ course was $M=5.41$, and the mean for students who had never taken an ‘I’ course was $M=5.17$ [t(110)=.417; p=.678]. For question three (to what extent did the classes you took this semester encourage you to participate...
in activities with people from cultures other than your own?), the mean answer for students enrolled in an ‘I’ course was $M=4.94$, and the mean for students who had never taken an ‘I’ course was $M=4.65$ [$t(110)=.525; p=.601$]. For question four (to what extent would you say the classes you took this semester improved your ability to work with people from other cultures?), the mean answer for students enrolled in an ‘I’ course was $M=4.86$, and the mean for students who had never taken an ‘I’ course was $M=4.83$ [$t(110)=.068; p=.946$]. Taken together, these results indicate that the type of course the students took in Fall 2012 (‘I’ or no ‘I’) did not make a difference in the degree to which they attributed their intercultural opinions, interactions, activities, or ability to work with others to the classes in which they were enrolled.

Question five (how would you say the courses you took this semester changed the way you think about people from other cultures?) was scaled differently than questions one through four. For question five, possible answers were: 1) the courses I took this semester changed how I think about people from other cultures in a negative way; 2) the courses I took this semester changed how I think about people from other cultures in a somewhat negative way; 3) the courses I took this semester did not change the way I think about people from other cultures; 4) the courses I took this semester changed how I think about people from other cultures in a somewhat positive way; and 5) the courses I took this semester changed how I think about people from other cultures in a positive way. Results of the independent t-test for this question revealed there were no significant differences in the average answer for students enrolled in an ‘I’ course ($M=3.72$) versus the average answer for students who had never taken an ‘I’ course ($M=3.74$; $t(109)=-.090; p=.929$; see Table 16). These results indicate that regardless of the type of class they were enrolled in during Fall 2012, the students in this sample did not change the way they thought about people from other cultures.
### Table 16

*Summary of ‘To What Extent’ Questions*

<table>
<thead>
<tr>
<th>Question</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrolled in ‘I’</td>
<td>66</td>
<td>4.35</td>
<td>2.76</td>
<td>1.053</td>
<td>110</td>
<td>.295</td>
</tr>
<tr>
<td>Never Taken ‘I’</td>
<td>46</td>
<td>3.80</td>
<td>2.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question 2</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>Enrolled in ‘I’</td>
<td>66</td>
<td>5.41</td>
<td>2.87</td>
<td>.417</td>
<td>110</td>
<td>.678</td>
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<tr>
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<td>5.17</td>
<td>3.04</td>
<td></td>
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<td>Question 3</td>
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<tr>
<td>Enrolled in ‘I’</td>
<td>66</td>
<td>4.94</td>
<td>2.91</td>
<td>.525</td>
<td>110</td>
<td>.601</td>
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<tr>
<td>Never Taken ‘I’</td>
<td>46</td>
<td>4.65</td>
<td>2.76</td>
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<td>Question 4</td>
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<tr>
<td>Enrolled in ‘I’</td>
<td>66</td>
<td>4.86</td>
<td>2.79</td>
<td>.068</td>
<td>110</td>
<td>.946</td>
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<tr>
<td>Never Taken ‘I’</td>
<td>46</td>
<td>4.83</td>
<td>2.95</td>
<td></td>
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<tr>
<td>Question 5</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Enrolled in ‘I’</td>
<td>65</td>
<td>3.72</td>
<td>.93</td>
<td>-.09</td>
<td>109</td>
<td>.929</td>
</tr>
<tr>
<td>Never Taken ‘I’</td>
<td>46</td>
<td>3.74</td>
<td>.93</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Questions 1-4 had a scale of 1-10, with 1 being ‘not at all’ and 10 being ‘very much’; Question 5 had a scale of 1-5, with answers ranging from negative (1) to positive (5).

### Chapter Summary

This chapter presented the results of the evaluation study. Four research questions were addressed. The results of the study indicated that there were no significant differences in students’ intercultural sensitivity scores from pre- to posttest for students enrolled in an ‘I’ course. In addition, results indicated that there were no significant differences in intercultural sensitivity scores based on students’ gender, age, ethnicity, undergraduate classification, college, or number of ‘I’ courses taken. There were significant differences in students’ intercultural sensitivity scores based on religion, traveling outside the US, whether or not the student had participated in a study abroad course, and number of cultural events in which the student had participated. Further, a
significant interaction effect for living outside the US x traveling outside the US was found, as intercultural sensitivity scores were different for students who had never lived outside the US depending on whether they had traveled outside the US.

The different student characteristics were analyzed with regard to their relationship to intercultural sensitivity scores. Analysis of correlations indicated that the number of ‘I’ courses taken, number of study abroad courses taken, number of times traveled outside the US, number of cultural events participated in, and religious affiliation were significantly correlated with intercultural sensitivity scores, while student age, gender, ethnicity, student classification, and number of times lived outside the US were not significantly correlated with ISS scores. In addition, results of a regression analysis revealed that the number of times the student traveled outside the US and the student’s religious affiliation were significant predictors of intercultural sensitivity scores.

The different course characteristics (course college, course level, and course prefix) were considered for analyses regarding their effects on intercultural sensitivity scores. Because of the large number of categories (colleges and courses) among the predictors, the two categorical variables in this analysis were coded using criterion coding. Multiple regression analysis determined that ISS scores did vary as a function of course characteristics, and course prefix was a significant individual predictor of ISS scores.

Finally, students’ answers to a series of questions that asked about the extent to which they attributed their opinions of a) other cultures, b) interactions with others, c) participation in cultural activities, and d) ability to work with others to their classes were not significantly different regardless of the type of class (‘I’ or no ‘I’) in which the students were enrolled. Students did not believe the courses they took in Fall 2012 (regardless of the type of class) changed the way they thought about people from other cultures.
CHAPTER V

FINDINGS, CONCLUSIONS, AND IMPLICATIONS

Oklahoma State University has stated that one of its general education requirements (of which the ‘I’ courses are a part) is to assist “the student in understanding and respecting diversity in people, beliefs and societies” (OSU Course Catalog, 2012, p. 10). However, while there are procedures in place to evaluate students’ work in these courses, there is no evaluation procedure in place to specifically assess the extent to which students’ understanding of and sensitivity to navigating cultural issues is affected by taking an ‘I’ course. Since the need for these courses has been promoted by students (Price & Gascoigne, 2006), society (Bardhan, 2003; Harrison & Peacock, 2010), and the governing body of OSU (OSHRE, 2011a), an evaluation of their effectiveness was warranted. The purpose of this study was to evaluate the effectiveness of the ‘I’ course by measuring students’ intercultural sensitivity at the start and end of the semester in which the student takes the ‘I’ class. This study provided a formative, outcome-oriented evaluation. Specifically, this study was guided by the following evaluation research questions:

1) Do students’ intercultural sensitivity scores change after taking an ‘I’ course?

2) Are students’ intercultural sensitivity scores influenced by demographic variables such as age, gender, ethnicity, home country, classification in school, major, and previous intercultural experience?

3) Which student characteristics best predict intercultural sensitivity?

4) Which ‘I’ course characteristics best predict intercultural sensitivity?
This chapter is divided into four sections. The first section is a summary of the findings of this evaluation. The second section outlines the conclusions drawn from this evaluation based on the findings presented in Chapter IV, as well as limitations of this evaluation. Finally, the third section outlines the implications and suggestions for future research/evaluation, theory, and practice. The chapter ends with concluding remarks.

**Summary of Evaluation Research Findings**

This evaluation research study addressed four main evaluation research questions and included a series of five questions that asked about the extent to which students attributed their opinions of a) other cultures, b) interactions with others, c) participation in cultural activities, and d) ability to work with others to the classes they took in Fall 2012. Regarding the first evaluation research question, the results of this evaluation indicated that students intercultural sensitivity scores did not change over the course of the semester regardless of the type of class the student was enrolled in (‘I’ or no ‘I’). There were no differences in students’ pretest or posttest scores regardless of enrollment. Even when divided into three groups (students who had never taken an ‘I’ course, students who had taken only one ‘I’ course, and students who had taken more than one ‘I’ course), no significant differences in intercultural sensitivity scores were found among students in this sample.

The second evaluation research question examined possible influences of student demographic variables (such as age, gender, ethnicity, classification in school, major, and previous intercultural experience) on intercultural sensitivity scores. Through ANOVA and t-test analyses, it was determined that mean intercultural sensitivity scores were not significantly different based on students’ gender, age, ethnicity, undergraduate classification, college enrollment, and number of ‘I’ courses. Further, when interactions among these variables were explored, there were no significant interactions found in score differences for ethnicity x OSU
cultural event participation, students’ college enrollment x the number of ‘I’ courses taken, and
parent culture x OSU cultural event participation. However, there were significant differences in
intercultural sensitivity scores based on students’ religion (non Christians had significantly higher
scores than Christians), whether they had traveled outside the US (those that had traveled outside
the US had significantly higher scores than those who had not), whether they had participated in a
study abroad course (those who had studied abroad had higher scores than those who did not),
and the number of cultural events the student had participated in at OSU (students who
participated in 4-5 events had significantly higher scores than those who had participated in none
or one event). Further, there was a significant interaction effect for living outside the US x
traveling outside the US, indicating that for students who had never lived outside the US,
intercultural sensitivity scores were significantly higher for those that had traveled outside the US
than for those who had not traveled out of the country.

Evaluation Research Question 3 further explored student characteristics as predictors of
intercultural sensitivity scores. Initial correlational analyses revealed that intercultural sensitivity
scores were significantly positively correlated with the number of ‘I’ courses a student had taken,
the number of study abroad courses a student had taken, the number of times a student had
traveled outside the US, the number of cultural events participated in, and students’ religious
affiliation. Student gender, age, ethnicity, classification, and number of times lived outside the US
were not significantly correlated with intercultural sensitivity scores. Results of the multiple
regression analysis confirmed that the set of variables that were positively correlated with
intercultural sensitivity scores accounted for 11.1% of the variability in ISS scores, with religious
affiliation and number of times traveled outside the US being significant predictors of ISS scores.

The final evaluation research question explored which ‘I’ course characteristics
influenced intercultural sensitivity scores. Only three course characteristics were able to be
measured in this evaluation: the prefix of the course (i.e., which department taught the class), the
course college (i.e., the college in which the department that teaches the course is housed), and the level of the course (i.e., 1000, 2000, 3000, 4000). The different course characteristics were considered for analyses regarding their effects on intercultural sensitivity scores. Because of the large number of categories (colleges and courses) among the predictors, the two categorical variables in this analysis were coded using criterion coding. Multiple regression analysis determined that ISS scores did vary as a function of course characteristics, and course prefix was a significant individual predictor of ISS scores.

Finally, with regard to the ‘to what extent questions’, students’ answers indicated that they did not attribute their a) opinions of other cultures, b) interactions with others, c) participation in cultural activities, and d) ability to work with others to the classes they took in Fall 2012. This was true regardless of the type of class in which the students were enrolled (‘I’ or no ‘I’). Further, students did not believe the courses they took in Fall 2012 (regardless of the type of class) changed the way they thought about people from other cultures, as the average answer to this question was a ‘3’, which was ‘not at all’ on the scale.

Conclusions

Several conclusions can be drawn from the findings of this evaluation. Major topics discussed in this section are the effectiveness of the ‘I’ course, using intercultural sensitivity as an outcome variable, the influence of student demographic variables, the importance of study abroad and cultural interactions, and course characteristics.

Effectiveness of the ‘I’ Course

One of the (if not the) key questions in this evaluation was ‘Do students’ intercultural sensitivity scores change after taking an ‘I’ course?’ The answer to this question, according to the data collected from the participants in this evaluation, is no. In this evaluation, there was no change in intercultural sensitivity scores over the course of the Fall 2012 semester regardless of
the whether or not the student took an ‘I’ course or how many ‘I’ classes the student had taken. Further, students did not believe the courses they took in Fall 2012 (regardless of the type of class) changed or contributed to the way they thought about people from other cultures. Taken together, these results indicate that the type of course the students took in Fall 2012 (‘I’ or no ‘I’) did not make a difference in students’ intercultural sensitivity scores.

The evaluator posits there are three possible explanations for this finding: a) the courses did not cover material that facilitated a change in cultural understanding (i.e., the students did not learn anything in their courses that changed their intercultural sensitivity); b) intercultural sensitivity was not a good outcome measure for these courses; c) the measure used in this evaluation (Chen & Starosta’s (2000) Intercultural Sensitivity Scale) was not sensitive enough to assess the perspectives of students in this sample.

**Explanation A: Students did not learn anything that changed their intercultural sensitivity.** This explanation asserts that either the content covered in the courses was not adequate to illicit change in these students and/or that students either did not learn or did not apply the information they learned in a way that facilitated an increase in their intercultural sensitivity scores over the course of the semester. On its face, this explanation is probably the most simple interpretation of the findings in this evaluation. However, Bardhan (2003) cautioned that while multicultural and international perspectives are increasingly being presented in the classroom, interest in such issues cannot be forced. Further, given the complexity of the concept of intercultural sensitivity (Bennett, 1984; Deardorff, 2006; Deardorff, 2011; Hammer et al., 2003), exploring other explanations for why changes in intercultural sensitivity scores were not found in this evaluation is warranted.

**Explanation B: ‘Intercultural sensitivity’ was not a good outcome measure for these courses.** According to the current OSU Course Catalog (2012), the goals of courses with an ‘I’ designation are to “prepare students to critically analyze one or more contemporary cultures
external to the United States; understand how contemporary international cultures relate to complex, modern world systems; and demonstrate their understanding through written work that provides them the opportunity to enhance their writing skills” (p. 10). Further, OSU has stated that one goal of the general education requirements (of which the ‘I’ courses are a part) is to assist “the student in understanding and respecting diversity in people, beliefs and societies” (OSU Course Catalog, 2012, p. 10). In developing the present study, the institutional goals/‘theory’ behind the requirement of the ‘I’ course in the OSU undergraduate curriculum was explored. Though there are stated goals of the ‘I’ requirement (see OSU Course Catalog, 2012 and/or ‘International Dimension Courses at Oklahoma State University’ section earlier in this paper), the goals of the program are somewhat ambiguous, the ways in which instructors accomplish these goals are not clear, and the intended outcome is not clearly defined.

According to Chen and Rossi (1983), one goal of theory based evaluation (which is the evaluation theory guiding this study) is to help clarify the intended effects of programs and thus aid in selecting an outcome variable(s). Thus, though ‘intercultural sensitivity’ was not stated as an outcome for the ‘I’ course requirement, the selection of this outcome is not inappropriate given the theory behind the requirement and the idea that intercultural sensitivity is developmental, can change, and is teachable (Bennett, 1984; Hammer et al., 2003). However, it is possible that the ‘I’ courses affect some other outcome not measured in this study; further research and/or evaluation is needed to identify what outcome variable (if any) is more appropriate.

Explanation C: The ISS was not sensitive enough to assess the perspectives of this sample. Though the ISS measure has been used in similar samples of college students (Chen & Starosta, 2000; Tamam, 2010), has been found to be reliable and valid (Chen, 2010; Chen & Starosta, 2000; Dong et al., 2008; Graf & Harland, 2005; Peng, 2006; Tamam, 2010), and the five-factor model included in the scale has been replicated in other studies (Chen, 2010; Fritz et al., 2002; Peng, 2006), one must consider the idea that perhaps the scale was not sensitive enough to assess the perspectives of students in this sample. It is possible that the measure could have
suffered from social desirability issues (e.g., the questions asked on the scale were such that students may have felt compelled to answer a certain way to be politically correct). Further, the items on the ISS are designed to measure a concept that is cognitive and attitudinal in nature (Altshuler, Sussman, & Kachur, 2003), and one’s perception of their thoughts and behaviors may be different than their actual actions or behaviors. The ISS was not designed to measure attitude/emotions or behavior or to discern discrepancies between perceptions and actual behavior, so perhaps a measure that is designed to measure emotions, behavior, and/or behavioral discrepancies would have been more appropriate. Finally, it is possible that the items on the scale were not of the appropriate depth to assess intercultural sensitivity in this sample (i.e., ‘surface level’ questions did not probe enough into the thoughts and mindsets of the students in this sample).

**Student Demographic Variables**

This evaluation explored the influence of a number of student demographic variables and characteristics, including student gender, age, ethnicity, undergraduate classification, religious affiliation, whether the student had lived outside the US, whether the student had traveled outside the US, whether the student’s parent(s) were from another culture, college student was enrolled in, number of ‘I’ courses taken, whether or not the student had taken a study abroad course, and the number of cultural events in which the student had participated. The demographic variables on which information was collected for this evaluation were a combination of commonly collected demographics (e.g., age, gender, ethnicity, etc.) and suggestions from the literature (e.g., study abroad participation), as well as variables that content experts suggested collecting (e.g., having a parent from another culture, living outside the US, traveling outside the US, etc.).

For the students who participated in this evaluation, students’ gender, age, ethnicity, undergraduate classification, college enrollment, and number of ‘I’ courses did not have a
significant effect on intercultural sensitivity scores. However, there were significant differences in intercultural sensitivity scores based on students’ religious affiliation, traveling outside the US, participating in study abroad, and the number of cultural events the student in which the student had participated. These findings help contribute to a gap in the literature, as there is not a discussion of the demographic variables that contribute to intercultural sensitivity (Chen & Starosta, 2000). In addition, some of the variables not commonly explored in other studies (such as those suggested by content experts) were found to have significant influences on intercultural sensitivity. For example, students who traveled outside the US had significantly higher ISS scores than those who had not, and traveling outside the US was one of only two significant predictors of intercultural sensitivity in this study. This is not surprising given that traveling outside one’s comfort zone (e.g., outside one’s home country) can “plant the seeds for a collaborative, positive exchange of ideas, information, and perspectives” (Sorenson, 2010). Thus, traveling outside the US may help students see other perspectives, encounter a person or culture different from themselves, and experience their own culture in the context of another, which are all important to developing intercultural sensitivity (Bennett, 2003; Tamam, 2010).

Interestingly, while traveling outside the US (when considered on its own) was significantly related to intercultural sensitivity scores, living outside the US (when considered on its own) was not. This could be a somewhat perplexing finding given that living outside the US would mean that a student would be spending an extended period of time (as it was defined in this study, six months or more) outside of his/her home country and culture. However, one must consider that about half of the 20 students who indicated they lived outside the US were born outside the US. Information was not gathered on why they were living outside the US (e.g., parent in the military, parent’s job requirement, etc.). Given that cultural identity develops throughout childhood and adolescence, if not across the lifespan (Santrock, 2013), it is possible
that these students have a uniquely different experience with intercultural sensitivity development than students who were born and raised in the US.

It is notable that there was a significant interaction effect for living outside the US x traveling outside the US. This significant interaction indicates that the effect of traveling outside the United States on intercultural sensitivity scores depended on whether or not the student had lived outside the US. This reiterates the influence traveling outside the US has on students’ intercultural sensitivity; for students that had not lived outside the US, those who had also never traveled outside the US had lower scores than those that had traveled out of the country.

**Influence of Religious Affiliation**

Of all of the student demographic variables explored in this study, only religious affiliation was found to be significant in all three analyses conducted (ANOVA, correlation, and regression). In this study, students who identified themselves as Christian consistently had lower intercultural sensitivity scores than students who identified themselves as having another religious affiliation. This was true no matter how the religious affiliation groups were divided—either as a dichotomy (Christian or non-Christian) or into four groups (Christian-Protestant, Christian-Catholic, other religion, and no religious affiliation). Further, the significant point biserial correlation between intercultural sensitivity and religious affiliation was positive, indicating that being non-Christian (coded as 1, versus Christian which was coded as 0) was correlated with higher intercultural sensitivity scores. In addition, religious affiliation was one of only two significant predictors of intercultural sensitivity in this evaluation.

Consistent with the majority affiliation for the state and region in which the university is located, the majority of students in this sample were Christian. Abu-Nimer (2001) asserted that religion plays a role in collective and individual identity, and religion influences culture through its organized interpretation of meanings. He asserts, “when religious values, norms, and behaviors are an integral part of the interactions between individuals and among groups, then religion helps
to construct both the individual’s and the group’s value system and world-view” (Abu-Nimer, 2001). This idea is further supported by Mahoney and Schamber (2004), who noted that in their study on a general education curriculum on diversity, discussions on religious issues helped reveal “a narrow understanding of culture from the standpoint of religion” (p. 324).

The idea that culture can influence one’s worldview is key to interpreting the finding in this evaluation that culture had a significant influence on intercultural sensitivity, specifically that non-Christians were more interculturally sensitive than Christians. In this evaluation, it is more appropriate to interpret this finding within the context that most students were Christian and thus were living and developing in a culture that was religiously similar to their own. Thus, it is not Christianity itself that ‘causes’ lower intercultural sensitivity, but rather that the majority of people in the sample had similar religious beliefs, values, and worldviews.

**Importance of Study Abroad and Cultural Interactions**

In this evaluation, both participation in study abroad and the number of cultural activities in which a student had participated had a significant effect on intercultural sensitivity. Only 12 of the students in this study had participated in study abroad, yet those students who had studied abroad had significantly higher intercultural sensitivity scores than those who had not; finding a significant difference with only a small number of students in this sample who had studied abroad is notable. This finding is not surprising, given that study abroad opportunities give students a chance to live, study, and/or work in another country and/or culture for an extended period of time, thus giving the student a hands-on chance learn about other cultures and develop intercultural sensitivity (Williams, 2005). This finding is similar to Williams (2005), who found that students who participated in study abroad had higher intercultural communication awareness scores than students who did not. Further, this finding is also consistent with Lee and Rice’s (2007) assertion that study abroad is a major way colleges and universities have helped add intercultural sensitivity development opportunities to college curricula in previous decades. The
findings in this evaluation further support the idea that students who have studied abroad are more interculturally sensitive than those who have not.

In addition to the study abroad findings, the number of cultural activities in which a student participated had an effect on intercultural sensitivity scores. Students in this evaluation who participated in 4-5 cultural events on campus had significantly higher intercultural sensitivity scores when compared to those who had participated in no events or one event. This finding is similar to that of Eisenchlas and Trevaskes (2007), who assert that giving students opportunities to interact in cross cultural situations is vital to helping them develop intercultural competencies and learn how to behave in culturally unfamiliar situations. Eisenchlas and Trevaskes (2007) maintain that, while valuable, having courses on helping students learn about cultural practices or reflect on cross cultural situations is only the first step in helping students acquire “the competences and skills needed to become effective intercultural communicators, as [these courses] do little to promote understanding and give local students experience in authentic intercultural interactions” (p. 414). Lee and Rice (2007) concur, acknowledging that improving students’ understanding, competence, and intercultural relations can be achieved through interactions between domestic and international students on campus.

Taken together, these findings make it clear that giving students opportunities to actively experience other cultures (i.e., study abroad and/or participating in cultural events) has a positive effect on developing intercultural sensitivity. This idea is supported by Bardhan (2003), who noted that in order for international/multicultural coursework to be effective, “the pedagogy needs to be lived and not simply talked about in the classroom. For this to happen, direct contact and immersion are necessary, as are instructors who are self-reflexive about their own backgrounds, sensitive to the cultural backgrounds of their students and open to constantly enhancing their own multicultural competence” (p. 171). Su (2010) further reiterates the importance and benefit of interactive intercultural events and opportunities, as these experiences guide students through a
process of discovery and meaning negotiation and allow them to “conduct their own learning, discover their own answers, and create their own interpretations” (Su, 2010, p. 74).

**Course Characteristics**

Whereas student characteristics were fairly easy to explore in this evaluation, identifying the effect or influence of course characteristics on intercultural sensitivity was more difficult. This was because, while students were enrolled in 34 different ‘I’ courses in Fall 2012 representing five of the six colleges in the university (see Table F1 in Appendix F) the information about the courses was limited to only three characteristics (prefix, level, and college). Since there was no meaningful way to group the courses together by prefix (other than by college, which is the system already used by the university), the categorical variables in this analysis were coded using criterion coding.

Based on the information from this evaluation, results indicate that ‘I’ course characteristics did have a meaningful influence on intercultural sensitivity scores for students in this sample, with course prefix being a significant individual predictor of ISS scores. Further, according to students’ answers to the ‘to what extent’ questions, the type of course the students took in Fall 2012 (‘I’ or no ‘I’) did not make a difference in the degree to which they attributed their intercultural opinions, interactions, activities, or ability to work with others to the classes in which they were enrolled. However, due to limitations with the design of this evaluation, more information about course characteristics is needed, as is further research and evaluation on this topic before more definite conclusions can be drawn.

**Limitations**

While not a limitation, it should be noted that the findings in this evaluation research study are specific to Oklahoma State University; a feature of evaluation is that it does not focus on generalizability. Keeping this in mind, several limitations must be taken into consideration
when drawing conclusions for this evaluation. First, the time frame in which the evaluation was conducted could play a part in the results found. This evaluation was conducted in a relatively short timeframe—over the course of one semester, or several months. It is possible that changes in intercultural sensitivity could take more time than what was available in the context of this study, and some possible effects could not be assessed. Another limitation of the study is the sample size; the data producing sample for the pretest phase of this evaluation was N=259, only 5.2% of invited sample (5002 students). Further, there was attrition from the pretest phase to the posttest phase, with only 114 students (44% of students who completed the pretest) responding to the posttest. Also, the sample was not very diverse in terms of age (n=221 18-22 year olds; n=27 23+ year olds) and religion (discussed previously in this chapter). While these numbers reflect the majority of undergraduate students at this institution, more diversity in the sample could have allowed for a more sensitive examination of the effects of these variables on intercultural sensitivity.

Further, while students who had never taken an ‘I’ course were randomly sampled from all students that fit the selection criteria for this evaluation, participants were not randomly assigned to the courses they took. Particularly with regard to the ‘I’ courses, this means that all possible courses were not included in this sample (e.g., there weren’t students enrolled in every possible ‘I’ class). This is also a function of the semester in which the study was conducted, as some courses are only offered at certain times (i.e., only in the fall, only in the spring, only in odd numbered years, etc.). It is important to remember, however, that this study was an evaluation, and studying a phenomenon at a given point in time is within the nature and purpose of an evaluation.

Another limitation of this study is that the outcome measure (the Intercultural Sensitivity Scale) relied on students’ self reports; as mentioned previously in this chapter, there could have been some social desirability issues related to self-reporting. And finally, as mentioned previously
in this chapter, information about course characteristics was limited due to the design of this study; thus, conclusions about the influence of course characteristics are difficult to draw and should be interpreted with caution.

**Suggestions and Implications**

The results of this evaluation do not suggest that major and immediate changes to the undergraduate curriculum be made. Rather, based on the findings and conclusions of this evaluation, it is clear that more research and evaluation must be conducted in order to better understand the effectiveness of the ‘I’ course and how individual experiences influence intercultural sensitivity. The following sections outline the suggestions and implications for future evaluation and research, theory, and practice based on the findings and conclusions in this evaluation.

**Future Evaluation and Research**

It is evident that more research and evaluation is vital to understanding the international dimension of the undergraduate curriculum as well as the concept of intercultural sensitivity. Because the findings and conclusions in this evaluation provide preliminary information to the stakeholders at the university, more research and evaluation is of the utmost importance before changes to courses or requirements are made. Suggestions for future evaluation and research include collecting data in different/multiple ways; exploring intercultural sensitivity and other possible outcomes; exploring the influence of religion on intercultural sensitivity; exploring the effects of/relationship between study abroad, attending cultural events, and intercultural sensitivity; exploring other demographic variables and student characteristics that influence intercultural sensitivity, and exploring the effects that course characteristics have on intercultural sensitivity.
Collect data in different/multiple ways. One of the limitations of this evaluation was sample size. As explained in previous sections, low response rate and attrition were issues in this study. Based on the findings of this evaluation and because there are varying opinions about the effectiveness of online survey research (Baruch & Brooks, 2008; Kaplowitz, Hadlock, & Levine, 2004), it is suggested that future evaluations collect data in multiple ways, including going into the classroom and talking with students (i.e., interviews or focus groups) and/or handing out surveys in the classroom. Dillman et al. (2009) suggested that collecting data in at least two different ways is an effective way to improve response rates. Though collecting data in more than one way would be time consuming and likely require multiple data collectors, it would allow for the collection of qualitative data with students and instructors (if wanted/necessary) as well as allow evaluators to ask questions about specific courses. This could help students focus on answering survey or evaluation questions based on the specific class they are in at the time they take the survey, and it would allow evaluators to tie students’ answers and opinions to specific courses and instructors much more easily. This would be particularly helpful for asking the ‘to what extent’ questions included in the present evaluation.

Explore intercultural sensitivity and other possible outcomes. The results of this study indicated that intercultural sensitivity scores did not change over the course of a semester regardless of the type of course in which the student was enrolled. Notably, in her dissertation, Janeiro (2009) studied students in the College of Agricultural Sciences and Natural Resources at OSU who were exposed to ‘intercultural experiences’ courses and had similar findings—no significant difference in students’ overall developmental intercultural sensitivity scores from pretest to posttest over the course of a semester. It is possible that changes in intercultural sensitivity could take more time than what was available in the context of one semester, so effects could not be appropriately measured. Further, it is possible that the ‘I’ dimension courses effect something other than intercultural sensitivity. More long term studies are needed to identify effects over time as well as what outcome variable(s) (if any) are more appropriate.
Explore the influence of religion on intercultural sensitivity. In this evaluation, religious affiliation was found to be significant in all analyses that were conducted. Students who identified themselves as Christian consistently had lower intercultural sensitivity scores than students who identified themselves as having another or no religious affiliation; this was true no matter how the religious affiliation groups were divided. Carrying out this same evaluation at a school in another region or country where the majority of people are religiously similar (such as the Middle East) could shed more light on this finding and help further understand how religious homogeneity affects intercultural sensitivity.

Explore the effects of/relationship between traveling outside the US, study abroad, attending cultural events, and intercultural sensitivity. In this evaluation, students who had traveled outside the US and/or studied abroad had significantly higher intercultural sensitivity scores than those who had not. Also, it was clear that students who had participated in more cultural events had significantly higher scores than those who went to none or one. More research exploring the relationship between/effects of primary intercultural experiences such as international travel, study abroad, and attending cultural events on students’ intercultural sensitivity and competence is needed. Further, this study provides evidence that students who have studied abroad and/or participated in cultural events may be different than other students (i.e., they had higher sensitivity scores). More investigation into what makes these students different (e.g., Does sensitivity influence participation in events? What motivates these students to study abroad and/or attend cultural activities?) is needed. Finally, it is worthwhile to explore possible barriers that keep students from participating in study abroad and/or cultural events so that these issues can be identified and addressed.

Explore other demographic variables and student characteristics that influence intercultural sensitivity. Research exploring other variables and factors that contribute to intercultural sensitivity is needed, especially since there is not a lot of information about this in the literature. Chen and Starosta (2000) suggested that future studies explore other sources that
contribute to the variance in intercultural sensitivity scores, such as age, gender, and educational level. This evaluation included these variables, and findings revealed several student characteristics and demographic variables on which students’ intercultural sensitivity scores differed, such as religious affiliation, traveling outside the US, participating in study abroad, and the number of cultural events the student in which the student had participated.

Further, 11.1% of the variance in intercultural sensitivity scores for this sample was explained by the regression analyses that included the number of ‘I’ courses taken, number of study abroad courses taken, number of times traveled outside the US, number of cultural events in which the student participated, and student’s religious affiliation as predictors. More research is needed to help understand what other student characteristics/factors explain variance in scores (e.g., class attendance, having friendships with people from other cultures, being from a rural vs. urban area) and any possible interactions among these variables. In validating the ISS, Chen and Starosta (2000) found that individuals with higher intercultural sensitivity scores were more attentive, empathetic, and had high self-esteem and high self-monitoring behaviors. These variables were outside the scope of exploration in this evaluation, but futures studies could take these into account as well.

In addition, students’ interest and motivation behind taking a course would be worthwhile to investigate in future research and evaluations. Bardhan (2003) found that for some students, having a connection to the material is essential, and general educational requirements do not always allow students to select the courses that would enhance their international/multicultural knowledge (Bardhan, 2003). Motivation behind enrollment in courses would be worthwhile to explore so that stakeholders can understand how students make decisions about what classes they take and can take this information into account when planning future courses and requirements.

Another important aspect to consider in future evaluations at OSU is the possible influence of the ‘D’ (diversity dimension) course on students’ intercultural understanding and sensitivity scores. In terms of course designation ‘D’ and ‘I’ courses are mutually exclusive,
meaning a course cannot carry both an ‘I’ and ‘D’ designation. This is because Diversity (‘D’) courses “emphasize one or more socially constructed groups (e.g. racial, ethnic, religious, gender, age, disability, sexual orientation) in the United States” (emphasis added; OSU Course Catalog, 2012; p. 10), while ‘I’ courses “prepare students to critically analyze one or more contemporary cultures external to the United States” (emphasis added; p. 10). Perhaps taking courses with one of the designations has more of an effect on students than courses with another, or perhaps these classes have a combined effect on students’ intercultural sensitivity. Further evaluations exploring this and any other possible covariate(s) would helpful to provide stakeholders with as much information as possible about how these requirements are helping students become better global citizens.

Finally, it may be worthwhile to include international students in future studies/evaluations on how ‘I’ courses affect students. This study only included domestic students and found that students who participated in at least four cultural events had higher intercultural sensitivity scores than those who participated in none or one. Though it was outside the scope of this evaluation, other studies have suggested that American and international students often misunderstand, stereotype, and criticize one another (Bardhan, 2003; Lee & Rice, 2007), and students have reported that intercultural interactions cause higher feelings of uncertainty and anxiety and lower quality of communication (Chen, 2002; Harrison & Peacock, 2010). Understanding how course requirements and intercultural experiences affect all students on this campus would be worthwhile for stakeholders, as requirements such as general education classes are standardized and mandated for all students regardless of major or nationality.

**Explore the effects of course characteristics on intercultural sensitivity.** One area that future evaluations can improve upon is collecting more information about course characteristics. This evaluation examined the effects of course level, course prefix, and course college on students’ ISS scores. However, there was no meaningful way to group the courses together by
prefix (other than by college, which is the system already used by the university), so criterion coding was used for the categorical predictors in this set.

In this study, course prefix was a significant individual predictor of ISS scores. Given that faculty, researchers, and students agree that having courses that focus on international/multicultural issues is important (Bardhan, 2003), more quantitative information about courses, such as degree of difficulty or evaluation and ranking information from University Assessment and Testing, could help with conducting more analyses with this data and shed light on the way course characteristics influence students’ intercultural sensitivity.

In addition to more quantitative information about courses, stakeholders could benefit from having more qualitative information about the courses as well. For example, information about course objectives, types of assignments given, and the content of the course could be helpful in determining if some classes are more effective than others in helping achieve the goals of the ‘I’ course. Collecting information about how the characteristics of the instructors teaching the courses influence students’ experiences in the course (and ultimately the effectiveness of the class) would also be helpful. Such information could include data on the instructor’s experience with other cultures (events, traveling, study abroad, etc); his/her own intercultural sensitivity/competence, teaching style, how many times the instructor has taught the class, and whether/how the instructors’ own goals and objectives for the course differ from the university’s goals and objectives for the course.

Future evaluators should consider studying and collecting data at the college or departmental level (rather than/in addition to aggregating the entire university together). This is because colleges and departments may be qualitatively different in their course offerings and student requirements (e.g., requiring students to take courses with different objectives for different reasons). Further, given the land grant nature of this institution, departments and colleges may have different philosophies and thus different ‘agendas’ with regard to
internationalization and intercultural competence and how those concepts fit into their programs. In addition, the student demographics in each college are different. For example, in Fall 2012, there were 116 international undergrads enrolled in majors housed in the College of Arts & Sciences, 155 in the Spears School of Business, and 173 in the College of Engineering, Architecture, and Technology, but only 11 international undergraduates in the College of Agricultural Sciences and Natural Resources and just 14 in the College of Education (IRIM, 2012). Thus, not only are students expected to be able to function in a more global society after they finish their education, they are also often learning in culturally diverse environments, as professors, staff, and fellow students are sometimes from other countries and cultures. Because student experiences may be different depending on which college they are enrolled in or what classes they take, future investigations should study courses at the college or departmental level.

**Implications for Theory**

Bennett’s (1984) Developmental Model of Intercultural Sensitivity (DMIS) is a model based on the ideas that 1) cultures differ in their views of the world; 2) people can and do perceive these differences as problematic and even threatening; 3) people employ a range of strategies to avoid “confronting the implications of fundamental difference” (p. 181); and 4) concepts must be internalized in order for development to take place. The DMIS model asserts that as people accept the differences between cultures and interpret events according to these differences, intercultural communication effectiveness increases (Bennett, 1984). Thus, intercultural sensitivity develops along a continuum: when individuals improve in their ability to subjectively understand and experience cultural differences, their intercultural sensitivity (and in turn, intercultural competence) improves (Bennett, 1984). Because the DMIS suggests intercultural sensitivity can be taught and learned, it makes sense that the concept has been included in higher education curricula. Though the purpose of this evaluation was not to test theory, the results have implications that relate to the DMIS theory that served as a foundation for
the study. The results of this evaluation did not support movement between stages (no pre- to posttest change), but results did support the idea that students had differing levels of intercultural sensitivity and different demographic characteristics and experiences had differing influences on intercultural sensitivity. More research should be conducted to further determine the differences and characteristics among individuals that influence the understanding of cultural differences and the continuum of intercultural sensitivity. Also, while thoughts (intercultural sensitivity) and behavior (intercultural competence) are discussed in Bennett’s (1984) research, the attitudinal and emotional aspects of intercultural relations are not discussed. Thus, exploring the emotional and/or attitudinal dimensions of intercultural sensitivity development would be worthwhile.

**Practice and Application**

The following sections explore suggestions and implications for practice based on the results of this evaluation. Topics in this section include exploring intercultural sensitivity as an outcome, clarifying the distinction between the ‘I’ and ‘D’ dimensions and assessing them accordingly, incorporating ‘hands-on’ intercultural experiences, and grouping or categorizing like-courses together.

**Explore intercultural sensitivity as an outcome.** A major challenge when designing this study was trying to figure out the exact purpose and goals of the ‘I’ dimension so that a clear outcome could be measured and assessed. Though there is a published purpose for the ‘I’ requirement (see OSU Course Catalog, 2012 and/or ‘International Dimension Courses at Oklahoma State University’ section in Chapter II), the goals of the requirement are somewhat ambiguous, the ways in which instructors accomplish these goals are not clear, and the intended outcome is not clearly defined. According to Chen and Rossi (1983), one goal of theory based evaluation (such as the present study) is to help clarify the intended effects of programs and thus aid in selecting an outcome variable(s). Though ‘intercultural sensitivity’ is not stated as an
outcome for the ‘I’ course requirement, the selection of this outcome was not inappropriate given
the institutional ‘theory’ behind the requirement.

Results of this evaluation indicated that taking an ‘I’ course did not have any effect on
students’ intercultural sensitivity scores. As discussed at length in previous sections, perhaps
these courses are affecting something other intercultural sensitivity. Perhaps the Intercultural
Sensitivity Scale was not a sensitive enough measure for this particular group of students. Or,
perhaps these classes are addressing something more basic than intercultural sensitivity, such as
simply exposing students to cultures and ways of life different from their own. However, one may
posit that ‘exposure’ alone is not enough. Deardorff (2011) asserts that administrators and faculty
at today’s colleges and universities should be asking themselves, “How well prepared are our
students for this global world in which we live and work?” (p. 77). Intercultural sensitivity is a
precursor to intercultural competence (Chen & Starosta, 2000; Tamam, 2010), and competence is
what is needed for students to be successful in their careers (Harrison & Peacock, 2010; Mahoney
& Schamber, 2004). In fact, some even assert that the higher education environment has a social
and ethical obligation to develop students into competent global citizens (Harrison & Peacock,
2010; Munoz, Conrad DoBroka, & Mohammad, 2009; Shah, King, & Patel, 2004).

In light of this, stakeholders should take seriously the challenge to identify clear and
measurable goals and outcomes of the ‘I’ dimension so that the appropriate skills and
competencies can be addressed, developed, and measured as students progress through their
college careers. Serious consideration should be given to whether intercultural competence is the
desired outcome these classes are supposed to achieve. If intercultural competence is the goal,
intercultural sensitivity is the first step toward achieving it. Hammer et al. (2003) asserts that
“greater intercultural sensitivity is associated with greater potential for exercising intercultural
competence” (p. 422). In other words, people who have an awareness of cultural differences and
can think about and conceptualize these differences exhibit intercultural sensitivity; those who
can navigate these differences appropriately exhibit intercultural competence.
Research universities (such as OSU) are the most likely of all university types (i.e., community colleges, liberal arts colleges, etc.) to have expressed international competencies as a learning outcome for students (Siaya & Hayward, 2003). Further, these institutions are most likely to include internationalization in their mission statements and cite internationalization as a strategic priority of the institution (Siaya & Hayward, 2003). OSU could be a leader in creating courses and facilitating experiences that foster the development of intercultural competence among students. The pieces are already in place in the form of requirements (such as the ‘I’ course) and opportunities for students to have intercultural experiences, but a clearly defined, measurable outcome must be identified to move this forward.

**Clarify the distinction between the ‘I’ and ‘D’ dimensions and assess them accordingly.** As outlined in Chapter II, OSU has identified several general education course designations that all undergraduates are required to take regardless of major, two of which include the ‘D’ (diversity) and ‘I’ (international) dimensions (OSU Course Catalog, 2012). The ‘I’ dimension has been a part of the undergraduate general education requirements since 1981; the ‘D’ requirement came about in 2008 (OSU Course Catalog, 2012). ‘D’ and ‘I’ courses are mutually exclusive, meaning a course cannot carry both an ‘I’ and ‘D’ designation. This is because Diversity (‘D’) courses “emphasize one or more socially constructed groups (e.g. racial, ethnic, religious, gender, age, disability, sexual orientation) in the United States” (p. 10), while ‘I’ courses “prepare students to critically analyze one or more contemporary cultures external to the United States” (p. 10). While both requirements have stated goals, some of the goals overlap (e.g., “demonstrate their understanding through written work that provides them the opportunity to enhance their writing skills”; OSU UAT, 2012) and the uniqueness of some goals to each particular dimension is not clear. Further clarifying the distinction between the ‘I’ and ‘D’ could make the purpose of both more clear and could aid in identifying a measurable outcome for each.

While it may appear that ‘I’ and ‘D’ courses are categorically different, the assessment of courses in each dimension is similar. There is no rubric specifically for the ‘I’ dimension, so the
assessment of the ‘I’ courses by the General Education Advisory Council (GEAC) is currently carried out by using two of the five assessment rubrics: Critical Thinking and Diversity Values (see Appendix B). The Critical Thinking rubric is designed to assess the University’s core value and stated learning outcome that “graduates will be able to critically analyze and solve problems” (OSU UAT, 2012). The Diversity Values rubric is designed to assess the University’s core value and stated learning outcome that “graduates will understand and respect diversity in people, beliefs, and societies” (OSU UAT, 2012). If ‘I’ and ‘D’ courses are mutually exclusive, cover different topics, and have different goals (i.e., ‘international’ and ‘diversity’ are not categorized the same way), stakeholders should clarify the distinction and develop rubrics accordingly so the courses within each dimension can be assessed separately and specifically.

**Incorporate ‘hands-on’ intercultural experiences.** In this evaluation, students who had participated in study abroad, attended at least four cultural events, and/or had traveled outside the US reported significantly higher intercultural sensitivity scores than students who had not done these things. These findings reiterate the dynamic nature of intercultural sensitivity, as outlined in Bennett’s (1984) DMIS model. Further, these findings are in line with Deardorff’s (2011) assertion that intercultural competence doesn’t ‘just happen’ by teaching students about another culture. Because giving students learning opportunities and meaningful domestic-international interactions is important to allow students to incorporate new ways of thinking into what they already know and believe (Deardorff, 2011), stakeholders should consider incorporating intercultural experiences into educational requirements. Based on the results of this study, such experiences could include taking a study abroad course or required attendance at a specified number of cultural activities.

Deardorff (2011) argues that ‘infusing’ intercultural competence and sensitivity throughout the curriculum does not mean students should only take one international course or completing one reading, experience, or lecture. At OSU, incorporating study abroad and/or cultural activities into students’ experiences is feasible, as both are available and already offered
on the Stillwater campus. However, study abroad may not financially feasible for all students. For students who can’t or don’t want to participate in study abroad, an ‘internationalization at home’ program may be a viable option for incorporating more hands-on intercultural experiences (rather than simply taking an ‘I’ class) into requirements.

The concept of ‘internationalization at home’ programs, which provide students with information about other cultures and countries and foster a sense of global citizenship in general educational curriculum, has come about in many academic institutions (Harrison & Peacock, 2010). As a land-grant school, OSU has an international mission and is rich with international/intercultural opportunities in which students can be involved. In Fall 2012, over 1800 international students at OSU represented 113 countries (OSU ISS, 2012). There are numerous intercultural events occurring on campus that showcase cultures outside the US at all times of the year including cultural dinners, performances, expositions, focus nights, and organizational meetings. In this study, students’ self-reported participation in these events is how data was collected for the ‘number of OSU cultural events participated in’ variable. These events are sponsored by various groups and entities on campus, including the International Students and Scholars Office, campus dining, the International Student Organization, various formal and informal student groups, and the Family Resource Center. Further, there are other opportunities for students to be involved in cultural events sponsored by outside organizations such as the Islamic Society of Stillwater or other faith-based organizations (e.g., the Wesley Foundation International Outreach). Requiring participation in events such as these could give students an opportunity to interact with people from cultures other than their own. Creating a certificate or service learning program for students who participate in these activities could formalize students’ involvement and create further incentive for students to attend. Further, stakeholders should consider the possibility of further assessing the influence of these activities on intercultural sensitivity so that an optimal variety of in- and out-of-class experiences can be achieved.
**Group or categorize like-courses together.** Previous research has suggested that certain types of classes (e.g., foreign language courses) may offer students similar experiences to help them further cultural understandings and broaden personal perspectives even when the classes focus on different areas/topics (i.e., different languages; Price & Gascoigne, 2006; Su, 2011). However, in this evaluation, there was no way to meaningful way to group like-courses together. Currently, the only way to group like-courses together is by prefix (other than by college, which is the system already used by the university), which is a broad categorization that does not provide in-depth information about the classes. Bardhan (2003) found that students preferred courses specifically focused on international/multicultural issues that they felt related to their major and future career goals (rather than general courses). Grouping like-courses together (e.g., by objectives, content, or lecture type) would not only provide more insight for stakeholders when conducting future evaluations and/or research, it could help students by giving them another piece of information to consider when choosing their classes.

**Concluding Remarks**

There is no agreed upon ‘correct’ way to ensure students receive training in intercultural sensitivity and/or competence. For some, the international dimension of higher education comes by way of ranking institutions based on the demographic makeup of the student body, scholar characteristics (e.g., number of students/faculty involved in the Fulbright program), the number of language and study aboard courses offered, and the expressed support of an institution’s administration (e.g., presence of an international emphasis in a mission statement, accessibility to programs via the university webpage, etc; Horn, et al., 2007). For others, the international component of education is more formally incorporated into the undergraduate curriculum. Institutions such as Oklahoma State University have attempted to give classes an international (‘I’) designation in order to demonstrate—and for some, require students to take—classes that incorporate an international dimension into the required undergraduate coursework. The findings,
conclusions, and implications from this evaluation should be considered by stakeholders at the university, especially with regard to clarifying the goals of the courses and determining what the appropriate outcome for these courses is and how to measure it. By doing this, stakeholders will be able to further evaluate the effectiveness of the ‘I’ courses in accomplishing the goals set by the university administrators and governing boards.

The results of this evaluation must be considered preliminary information for the university and can help fine tune design issues and future research questions for future studies/evaluations. Clearly, there is no simple answer to how to best prepare students for a global society, especially given the various student and course characteristics that influence (or have the potential to influence) intercultural sensitivity and/or competence. The issue is further complicated since there is no agreed upon way to ensure students receive effective training in intercultural sensitivity and/or competence. These factors, coupled with the fact that that there could be significant ramifications for departments that have a large number of students taking ‘I’ courses that they offer (e.g., the Department of Geography) make this issue a complex but very important one for stakeholders to consider and act upon.

The design and findings of this evaluation could be a model for other universities to assess the international dimension of their curricula (whatever that curricula may look like). Given its land grant mission and the many intercultural opportunities already available on campus, OSU has a great opportunity be a leader in researching intercultural issues, creating courses, and facilitating experiences that foster the development of intercultural competence among students. The pieces are already in place in the form of requirements (such as the ‘I’ course) and opportunities for students to have intercultural experiences, but a concerted effort to clarify the goals of the requirements, identify student and course characteristics that affect sensitivity, and discover the right combination of in- and out-of-classroom experiences to effectively prepare students for the global world in which we live is necessary.
REFERENCES


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doi: 10.1353/lib.2006.0050


10.1002/ev.1177


http://search.proquest.com/docview/219282589/1357368AEB564017272/4?accountid=4


APPENDIX A

OSU International Dimension Courses (OSU Office of the Registrar, 2011)

<table>
<thead>
<tr>
<th>OSU Course</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEC 4343</td>
<td>International Agricultural Markets, Trade and Development</td>
</tr>
<tr>
<td>AGEC 4803</td>
<td>International Agricultural Economics Tour</td>
</tr>
<tr>
<td>AGED 4713</td>
<td>International Programs in Agricultural Education and Extension</td>
</tr>
<tr>
<td>AG 3090</td>
<td>Study Abroad</td>
</tr>
<tr>
<td>ANSI 3903</td>
<td>Agricultural Animals of the World</td>
</tr>
<tr>
<td>ANTH 3353</td>
<td>Cultural Anthropology</td>
</tr>
<tr>
<td>ANTH 3443</td>
<td>Peoples of Mesoamerica</td>
</tr>
<tr>
<td>ANTH 4883</td>
<td>Comparative Cultures</td>
</tr>
<tr>
<td>ARCH 2003</td>
<td>Architecture and Society</td>
</tr>
<tr>
<td>ART 3683</td>
<td>History of 20th Century Art</td>
</tr>
<tr>
<td>ART 3743</td>
<td>History of Latin American Art II</td>
</tr>
<tr>
<td>A&amp;S 3090</td>
<td>Study Abroad</td>
</tr>
<tr>
<td>AVED 4653</td>
<td>International Aerospace Issues</td>
</tr>
<tr>
<td>BADM 2093</td>
<td>Study Abroad: Contemporary International Culture and Business Impacts</td>
</tr>
<tr>
<td>BADM 3090</td>
<td>Study Abroad</td>
</tr>
<tr>
<td>BADM 3713</td>
<td>International Business</td>
</tr>
<tr>
<td>BADM 4093</td>
<td>Business Impacts of Contemporary International Culture</td>
</tr>
<tr>
<td>CTED 4333</td>
<td>International Career and Technical Education</td>
</tr>
<tr>
<td>ECON 4643</td>
<td>International Economic Development</td>
</tr>
<tr>
<td>ECON 4823</td>
<td>Comparative Economic Systems</td>
</tr>
<tr>
<td>EDUC 3090</td>
<td>Study Abroad</td>
</tr>
<tr>
<td>ENGL 2243</td>
<td>Language, Text and Culture</td>
</tr>
<tr>
<td>ENGL 2443</td>
<td>Languages of the World</td>
</tr>
<tr>
<td>ENGL 3173</td>
<td>World Literature II</td>
</tr>
<tr>
<td>ENGL 3463</td>
<td>History of International Film</td>
</tr>
<tr>
<td>ENGR 3090</td>
<td>Study Abroad</td>
</tr>
<tr>
<td>FLL 2443</td>
<td>Languages of the World</td>
</tr>
</tbody>
</table>
FREN 2232  Intermediate Reading and Conversation II
GEOG 1113  Introduction to Cultural Geography
GEOG 2253  World Regional Geography
GEOG 3053  Introduction to Central Asian Studies
GEOG 3133  Political Geography
GEOG 3723  Geography of Europe
GEOG 3733  Geography of Russia and its Neighbors
GEOG 3743  Geography of Latin America
GEOG 3753  Geography of Asia
GEOG 3763  Geography of Africa
GEOG 3783  Geography of the Middle East and Southwest Asia
GEOG 3793  Geography of Australia and the Pacific Realm
GRMN 2112  Intermediate Conversation and Composition I
GRMN 2113  First Readings in German
GRMN 2222  Intermediate Conversation and Composition II
GRMN 2223  Introduction to German Literature
GRMN 4113  German Literature in Translation
HES 3090  Study Abroad
HIST 3003  The Soviet Union
HIST 3053  Introduction to Central Asian Studies
HIST 3113  Germany Since 1815
HIST 3163  Russia Since 1861
HIST 3273  Modern Europe Since 1914
HIST 3333  History of the Second World War
HIST 3343  World War I in Modern European Culture
HIST 3413  East Asia Since 1800
HIST 3423  Modern Japan
HIST 3433  Modern China
HIST 3463  Modern Latin America
HIST 3493  Scandinavia since 1500
HIST 3513  Modern Middle East Since 1800
HIST 3543  Israel & Palestine in Modern Times
HIST 3553  Media and Popular Culture in the Arab Middle East
HIST 4543  Vietnam War
HIST 4563  Cold War
HONR 3013  Holocaust Studies Seminar
HONR 3023  Contemporary Cultures of the Western World
HONR 3033  Contemporary Cultures of the Nonwestern World
HORT 4053  International Experience in Horticulture
HRAD 3223  International Travel and Tourism
HDFS 3203  Children’s Play: A World Perspective
JAPN 2113 Intermediate Japanese I
JAPN 2223 Intermediate Japanese II
LA 4053 International Experience in Landscape Architecture
Japan
LA 4063 International Experience in Landscape Architecture Peru
LSB 4633 Legal Aspects of International Business Transactions
MC 4153 International Mass Communication
MGMT 4613 International Management
MGMT 4883 Multiple Perspectives in Global Management
MUSI 3543 Music and Culture of Northern Italy
MUSI 3583 Traditional World Music
NREM 4393 Natural Resources, People and Sustainable Development
NSCI 3543 Food and the Human Environment
PHIL 3943 Asian Philosophy
POLS 3003 The Soviet Union: History, Society and Culture
POLS 3053 Introduction to Central Asian Studies
POLS 3123 Politics of Russia/Former Soviet Union
POLS 3143 Politics of Western Europe
POLS 3163 Politics of Africa
POLS 3193 Politics of Latin America
POLS 3223 Politics of East Asia
POLS 3313 Politics of the Middle East
POLS 4053 War and World Politics
REL 4113 The World of Islam: Cultural Perspectives
REL 4213 Understanding Global Islam
RUSS 2115 Intermediate Russian II
RUSS 2225 Intermediate Russian II
RUSS 3003 The Soviet Union: History, Society and Culture
RUSS 3053 Introduction to Central Asian Studies
SCFD 4913 International Problems and the Role of the School
SOC 4033 Comparative Perspectives of Criminal Justice Systems
SPAN 2115 Intermediate Spanish I
SPAN 2233 Intermediate Composition and Grammar
SPAN 2232 Intermediate Reading and Conversation
SPCH 4753 Intercultural Communication
TCOM 3153 International Telecommunications Business Environment
APPENDIX B

General Education Assessment Rubric—Critical Thinking

Learning Outcome: Graduates will be able to critically analyze and solve problems.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Level of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>A Identification and/or summary of the problem/question at issue</td>
<td>No identification and/or summary of the problem.</td>
</tr>
<tr>
<td>B Presentation of the student's own perspective and position as it is important to the analysis of the issue</td>
<td>The student's own interpretation or position relative to the question is not provided.</td>
</tr>
<tr>
<td>C Use of supporting data/evidence</td>
<td>No supporting data, logical argument or evidence is used.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>D Discussion of conclusions, implications and consequences</td>
<td>Conclusions are not provided.</td>
</tr>
</tbody>
</table>

E - G: Optional Characteristics (evaluated where appropriate)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Level of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>E Consideration of OTHER student perspectives and alternate positions that are important to the analysis of the issue</td>
<td>Does not acknowledge possible alternate perspectives.</td>
</tr>
<tr>
<td>F Assessment of the key assumptions and the validity of the supporting background information</td>
<td>Does not identify the key assumptions and/or evaluate the given information that underlies the issue.</td>
</tr>
<tr>
<td>G Consideration of the influence of the context on the issue (including, where appropriate, cultural, social, economic, technological, ethical, political, or personal context)</td>
<td>The problem is not connected to other issues or placed in context.</td>
</tr>
</tbody>
</table>

* 2 - Exhibits most characteristics of '1' and some characteristics of '3'.
** 4 - Exhibits most characteristics of '3' and some characteristics of '5'.

Note: This rubric was adapted from Washington State University

Revised 5-1-10
### General Education Assessment Rubric—Diversity

**Statement of Learning Outcome:** “Graduates will understand and respect diversity in people, beliefs and societies.”

<table>
<thead>
<tr>
<th>Skill</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4**</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> Conceptual understanding</td>
<td>Understands diversity to mean differences among people in a superficial and one-dimensional manner (catalogues differences). Can only evaluate others in comparison to herself and in an implied hierarchical manner (exhibits ethnocentrism).</td>
<td></td>
<td></td>
<td></td>
<td><strong>Understands diversity as knowledge of differences in cultural practices, attitudes, and beliefs.</strong> Moderate appreciation for the value of any of this understanding in application or in navigating the social and cultural environment. Ones beyond “cataloguing” differences</td>
</tr>
<tr>
<td><strong>B</strong> Values diversity</td>
<td>Demonstrates minimal tendency to try to understand and to value multiple perspectives. Is unable to draw on diverse opinion when making decisions.</td>
<td></td>
<td></td>
<td></td>
<td><strong>Demonstrates a strong perspective of inclusion.</strong> Demonstrates strong tendency to try to understand and to value multiple perspectives.</td>
</tr>
<tr>
<td><strong>C</strong> Knowledge of historical context</td>
<td>Student’s work demonstrates minimal knowledge of history of racial, ethnic or other relevant groups. Lacks perspective on the issue.</td>
<td>Student’s work demonstrates moderate knowledge of historical context and how that historical context is important to the issue.</td>
<td></td>
<td></td>
<td><strong>Student’s work demonstrates substantial knowledge of historical context and now that history applies to present-day situations relating to inter-group relations.</strong></td>
</tr>
<tr>
<td><strong>D</strong> Sources of understanding, value, and knowledge.</td>
<td>Student’s understanding and values regarding diversity are based primarily on limited factual knowledge and personal observation; little apparent influence of personal experience outside own immediate environment.</td>
<td>Student’s understanding and values regarding diversity are based primarily on moderate factual knowledge and personal observation; some apparent influence of personal experience outside own immediate environment.</td>
<td></td>
<td></td>
<td><strong>Student’s understanding and values regarding diversity are based on reflection and integration of substantial factual knowledge and personal observation; strong apparent influence of personal experience outside own immediate environment.</strong></td>
</tr>
</tbody>
</table>

* Exhibits most characteristics of ‘1’ and some of ‘3’
** Exhibits most characteristics of ‘3’ and some of ‘5’
<table>
<thead>
<tr>
<th>Skill</th>
<th>Level of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td>A Understanding of problem</td>
<td>No clear understanding indicated; Lack of comprehension of the basic parts of the problem; Didn’t understand enough to start to work the problem;</td>
</tr>
<tr>
<td>B Use of terms and symbols</td>
<td>Unable to communicate any math concepts through terminology; Amount of technical or mathematical terms, or used inappropriately; Mathematical symbols are not used, or used incorrectly;</td>
</tr>
<tr>
<td>C Calculations</td>
<td>No evidence of manipulation of mathematical expressions; Arithmetical errors prevalent in the work;</td>
</tr>
<tr>
<td>D Solution</td>
<td>Shows significant misunderstanding of the process; Does not correctly apply or even make attempt to apply appropriate solution; Reflects inappropriate strategy for solving the problem; Attempts to use irrelevant information; No (or incorrect) graphical representation of the mathematical thought process;</td>
</tr>
<tr>
<td>E Answer</td>
<td>No expression of any empirical finding; Units if stated are incorrect; Conclusion is not valid;</td>
</tr>
<tr>
<td>F Difficulty of Problems</td>
<td>Values plug directly into equation; No mathematical manipulation;</td>
</tr>
</tbody>
</table>
# General Education Assessment Rubric—Science

**Learning Outcome:** Graduates will understand the scientific inquiry process and be able to critically analyze the physical world using the methodologies and models of science.

<table>
<thead>
<tr>
<th>Skill</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Understanding of problem</td>
<td>Student does not exhibit a clear understanding of the problem; Displays little comprehension of the important elements of the problem; Failed to understand enough to start working the problem.</td>
<td>Response is free of misconceptions that lead to wrong answers; Student grasps basic parts of the problem as well as the general framework; Understands enough to work most of the problem; Can make a diagram that exhibits some understanding of the model; Can demonstrate some conceptualization of the model.</td>
<td>Student manifests a thorough understanding of concepts and relationships between concepts; Identifies all the important elements of the problem; Organization of the response demonstrates clarity of understanding.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B Use of terms and symbols</td>
<td>Student is unable to communicate scientific concepts through terminology; Fails to employ technical, mathematical, or scientific terms or employs them inappropriately; Fails to use symbols or uses them incorrectly.</td>
<td>Student uses most terminology and symbols correctly; Provides evidence of reasonable understanding of terms and symbols.</td>
<td>Student explains thought thoroughly using correct terminology and clearly displays, appropriate symbols; Communicates ideas clearly and concisely; Demonstrates superior knowledge of scientific language and symbolic usage; Knows all the symbols and terms in a mathematical relationship and their association with the scientific model of interest.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C Calculations and graphical data presentation</td>
<td>Student provides no evidence of manipulation of mathematical expressions; Commits numerous arithmetic errors; Fails to present data in graphical or tabular format.</td>
<td>Response is mainly accurate with some minor arithmetic errors; Student has sufficient understanding to work the problem, but presentation is not sophisticated; Provides graphical representation but cannot extract abstract information or interpretation; Presents calculations in an orderly manner, but misses some details; Represents data graphically but commits minor errors.</td>
<td>Response is fully mathematically accurate; Solution is clearly displayed with various computation steps shown; Student executes algorithms completely and correctly; Presents data in appropriate graphical or tabular format; Provides clear interpretation and conceptualization of results; Displays results graphically in a clear and illuminating way.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D Solution and graphical data interpretation</td>
<td>Student shows significant misunderstanding of the process; Does not correctly apply or even attempt to apply appropriate solution; Adopts inappropriate strategy for solving the problem; Attempts to use irrelevant information; Fails to provide, or provides incorrect, graphical representation of the mathematical thought process.</td>
<td>Student shows understanding of the process; Adopts a reasonable strategy for solving most of the problem; Displays solution in a rote manner indicating a simple conceptualization of the problem; Shows understanding of some of the problem's concepts.</td>
<td>Student shows mastery of the process; Presents a detailed solution characterized by logical sequencing and systematic progression; Offers strong supporting arguments; Uses relevant outside information; Solution reflects excellent problem-solving skills.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E Answer and conclusions</td>
<td>Answer lacks units or units are stated incorrectly; Student offers an invalid answer; Fails to offer any empirical findings.</td>
<td>Answer is stated in correct units; Student expresses empirical findings but is limited in identification of related issues; Is unable to demonstrate complete understanding of the mathematical result and its relationship to the conceptual model.</td>
<td>Answer is stated in correct units with any unit changes clearly illustrated; Student provides a complete response with a clear, unambiguous, accurate explanation; Fully describes findings in words; Convincingly connects the numeric results and the conceptual model.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F Evidence of higher level thinking</td>
<td>Student is unable to plug values directly into equation; Seems incapable of mathematical manipulation.</td>
<td>Student combines two related concepts; Substitutes correct values and manipulates equation but still has some difficulty with more complicated relationships or model; Has some difficulty in developing a mathematical relationship from the written form.</td>
<td>Student can solve problems requiring multiple steps with development of concepts evolving into the solution; Can clearly synthesize information and organize it in a path through multiple steps to arrive at the solution; Has no difficulty connecting mathematical relationships or expressing ideas mathematically; Is capable of interpreting and applying results in a new or modified situation.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 2 - Exhibits most characteristics of '1' and some characteristics of '3'
* **4** - Exhibits most characteristics of '3' and some characteristics of '5'

Revised 5/1/10
## General Education Assessment Rubric—Written Communication

**Learning Outcome:** Graduates will be able to communicate effectively in writing.

<table>
<thead>
<tr>
<th>Skill</th>
<th>1</th>
<th>2*</th>
<th>3</th>
<th>4**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> Content</td>
<td>Topic is poorly developed; support is only vague or general; ideas are trite; wording is unclear, simplistic; reflects lack of understanding of topic and audience; minimally accomplishes goals of the assignment.</td>
<td>Topic is evident; some supporting detail; wording is generally clear; reflects understanding of topic and audience; generally accomplishes goals of the assignment.</td>
<td>Topic/thesis is clearly stated and well developed; details/wording is accurate, specific, appropriate for the topic &amp; audience, with no digressions; evidence of effective, clear thinking; completely accomplishes the goals of the assignment.</td>
<td></td>
</tr>
<tr>
<td><strong>B</strong> Organization</td>
<td>Most paragraphs are rambling and unfocused; no clear beginning or ending paragraphs; inappropriate or missing sequence markers.</td>
<td>Most paragraphs are focused; discernible beginning and ending paragraphs; some appropriate sequence markers.</td>
<td>Paragraphs are clearly focused and organized around a central theme; clear beginnings and ending paragraphs; appropriate, coherent sequences and sequence markers.</td>
<td>Overall organization can be inferred and is appropriate for the assignment. Overall organization is clearly marked and is appropriate for the assignment.</td>
</tr>
<tr>
<td><strong>C</strong> Style and mechanics</td>
<td>Inappropriate or inaccurate word choice; repetitive words and sentence types; inappropriate or inconsistent point of view and tone. Frequent non-standard grammar, spelling, punctuation interferes with comprehension and writer's credibility.</td>
<td>Generally appropriate word choice; variety in vocabulary and sentence types; appropriate point of view and tone. Some non-standard grammar, spelling, and punctuation; errors do not generally interfere with comprehension or writer's credibility.</td>
<td>Word choice appropriate for the task; precise, vivid vocabulary; variety of sentence types; consistent and appropriate point of view and tone. Standard grammar, spelling, punctuation; no interference with comprehension or writer's credibility.</td>
<td></td>
</tr>
<tr>
<td><strong>D</strong> Documentation</td>
<td>In-text and ending documentation are generally inconsistent and incomplete; cited information is not incorporated into the document; content is not supported by sources.</td>
<td>In-text and ending documentation are generally clear, consistent, and complete; cited information is somewhat incorporated into the document; content is somewhat supported with sources.</td>
<td>In-text and ending documentation are clear, consistent, and complete; cited information is incorporated effectively into the document; content is well-supported with sources.</td>
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* Exhibits most characteristics of ‘1’ and some of ‘3’
** Exhibits most characteristics of ‘3’ and some of ‘5’

Revised 6/09/10
APPENDIX C

Institutional Review Board Application and Modification Approval

Oklahoma State University Institutional Review Board

Date: Tuesday, June 26, 2012
IRB Application No: ED12104
Proposal Title: Evaluating the Effectiveness of the International Dimension in the OSU Undergraduate Curriculum

Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved  Protocol Expires: 8/25/2013

Principal Investigator(s):
Sarah Wilkey  Janice Miller
713 N. Walnut  313 Willard
Stillwater, OK 74078  Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 46 CFR 46.

The final versions of any printed recruitment, consent and ascent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI, advisor, funding status or approval, subject population, composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research.
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth Mcternan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

[Signature]
Sheila Kennison, Chair
Institutional Review Board

117
Oklahoma State University Institutional Review Board

IRB Application No: ED12104
Proposal Title: Evaluating the Effectiveness of the International Dimension in the OSU Undergraduate Curriculum
Reviewed and Processed as: Exempt  Modification
Status Recommended by Reviewer(s): Approved
Principal Investigator(s):
Sarah Wilkey  Janice Miller
1713 N. Skyline St.  313 Willard
Stillwater, OK 74075  Stillwater, OK 74078

The requested modification to this IRB protocol has been approved. Please note that the original expiration date of the protocol has not changed. The IRB office MUST be notified in writing when a project is complete. All approved projects are subject to monitoring by the IRB.

The final versions of any printed recruitment, consent and assent documents bearing the IRB approved stamp are attached to this letter. These are the versions that must be used during the study.

The reviewer(s) had these comments:
The modification request to allow a second recruitment announcement to be sent is approved.

Signature.

[Signature]
Sheila Kennison, Chair, Institutional Review Board

Wednesday, September 19, 2012  Date
APPENDIX D

Chen and Starosta’s Intercultural Sensitivity Scale

Below is a series of statements concerning intercultural communication. There are no right or wrong answers. As you respond to each sentence, please use the following definition of ‘culture’.

Culture: “the relatively stable set of inner values and beliefs generally held by groups of people….and the noticeable impact those values and beliefs have on the peoples’ outward behaviors and environment” (Peterson, 2004, p. 17).

Please work and record your first impression by indicating the degree to which you agree or disagree with the statement.

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

1. I enjoy interacting with people from different cultures.
2. I think people from other cultures are narrow-minded.
3. I am pretty sure of myself in interacting with people from different cultures.
4. I find it very hard to talk in front of people from different cultures.
5. I always know what to say when interacting with people from different cultures.
6. I can be as sociable as I want to be when interacting with people from different cultures.
7. I don’t like to be with people from different cultures.
8. I respect the values of people from different cultures.
9. I get upset easily when interacting with people from different cultures.
10. I feel confident when interacting with people from different cultures.
11. I tend to wait before forming an impression of culturally-distinct counterparts.
12. I often get discouraged when I am with people from different cultures.
13. I am open-minded to people from different cultures.
14. I am very observant when interacting with people from different cultures.
15. I often feel useless when interacting with people from different cultures.
16. I respect the ways people from different cultures behave.
17. I try to obtain as much information as I can when interacting with people from different cultures.
18. I would not accept the opinions of people from different cultures.
19. I am sensitive to my culturally-distinct counterpart’s subtle meanings during our interactions.
20. I think my culture is better than other cultures.
21. I often give positive responses to my culturally different counterpart(s) when interacting with them.
22. I avoid those situations where I will have to deal with culturally-distinct persons.
23. I often show my culturally-distinct counterpart my understanding through verbal or nonverbal cues.
24. I have a feeling of enjoyment towards differences between my culturally-distinct counterpart and me.
APPENDIX E

Participant Demographic and Other Information

**General Demographic Data**
How old are you? (answer in years, as of today)

What is your gender? (M or F)

What is your country of citizenship/origin? (drop down menu)

What is your ethnicity? (Asian or Pacific Islander, African American, Hispanic, Native American or Alaskan Native, Caucasian, Other--please specify)

Do you speak a language other than English fluently? (Y or N)
    If yes, please specify:

What is your religious affiliation? (Christian-Protestant, Christian-Catholic, Church of Latter Day Saints, Jewish, Muslim, Hindu, Buddhist, no religious affiliation, other--please specify)

What is your classification at OSU (based on credit hours completed)? (Freshman, Sophomore, Junior, Senior)

What is your major? (drop down menu)

What is your enrollment status? (in-state student, out of state student, international student)

Identify each ‘I’ course in which you were enrolled in this semester? (drop down menu) (could be more than 1)

Have you taken another I course besides the one(s) you are taking this semester? (Y or N)
    If yes, which course(s)? (drop down menu)

Have you ever taken a study abroad course?
    If yes, which course? (students enter course info)

**Intercultural Experience**
Have you ever:
    Traveled to a country outside of the US?
        If yes, to where?
    Lived in a foreign country for six months or more?
        If yes, where?
        For how long?
    Is your mother from another country or culture?
If yes, where is she from?
Is your father from another country or culture?
If yes, where is he from?
Do you have contact with students from other cultures on a regular basis (i.e. more than once a week)? (yes as a part of my degree program, yes on a social basis, no)

Have you attended an event at OSU that focused or showcased a culture outside of the US?
Cultural Dinner (such as Korean Cultural Dinner, Caribbean Cultural Dinner, etc)
Cultural Performance (such as Diwali Night, Malaysian Drum Troupe, etc.)
Cultural Exposition (such as the International Expo, Culture Night, etc)
International Student Organization meeting (such as a meeting for the Indian Student Association, Latin American Student Association, African Student Association, etc)
Other (please specify)

Other Questions (at post-test)
To what extent do you attribute your opinion of other cultures to this class? (scale of 1-10)
To what extent did this class encourage you to have interactions/conversations with people from cultures other than your own? (scale of 1-10)
To what extent did this class encourage you to participate in activities with people from cultures other than your own (scale of 1-10)
To what extent would you say that this course improved your ability to work with people from other cultures? (scale of 1-10)
Would you say that this course changed the way you think about people from other cultures? (yes positively, yes negatively, no)
## APPENDIX F

Enrollment in ‘I’ Courses for Fall 2012

Table F1

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<th>College and Courses</th>
<th>Number of Students Enrolled</th>
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<td><strong>Enrollment Total:</strong> 115</td>
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<p>| <strong>Spears School of Business</strong> |                             |
| LSB 4633                  | 3                           |
| MKTG 3993                 | 6                           |
| MGMT 4613                 | 6                           |
| <strong>SSoB Course Total:</strong> 3  | <strong>Enrollment Total:</strong> 15   |</p>
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Note: No ‘I’ courses offered by the College of Education were taken in Fall 2012.
Table G1

*Countries Students Traveled To (Visited) and Lived In*

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Note: Some students traveled to and/or lived in more than one country.
VITA

Sarah Ruth Wilkey

Candidate for the Degree of

Doctor of Philosophy

Thesis: EVALUATING THE EFFECTIVENESS OF THE INTERNATIONAL DIMENSION IN AN UNDERGRADUATE CURRICULUM BY ASSESSING STUDENTS’ INTERCULTURAL SENSITIVITY

Major Field: Research, Evaluation, Measurement, and Statistics

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy/Education in Research, Evaluation, Measurement, and Statistics at Oklahoma State University, Stillwater, Oklahoma in May, 2013.

Completed the requirements for the Master of Science in your Developmental and Family Science at Oklahoma State University, Stillwater, OK in 2007.

Completed the requirements for the Bachelor of Science in Human Development and Family Science at Oklahoma State University, Stillwater, OK in 2005.

Experience:
Assistant Director, Housing and Residential Life, Oklahoma State University
February 2012—present
Adjunct Faculty Member, Oklahoma State University
August 2007—present
Research Scientist, OSU Center for Educational Research and Evaluation
August 2012—present
Area Coordinator, Housing and Residential Life, Oklahoma State University
July 2008-February 2012

Professional Memberships:
NAFSA: Association of International Educators 2012-present
Phi Beta Delta 2012-present
National Association of Student Personnel Administrators 2011-present
American Evaluation Association 2009-present
Association of College and University Housing Officers International 2005-present