

**Exploring international student adaptation through
a first-year experience course at Iowa State University**

by

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ABSTRACT

Although considerable research has been conducted on the adjustment of international students to U.S universities and culture, as well as research on first-experience courses, little research is available on the impacts of first-year experience courses on international student adjustment. This dissertation focuses on how a first-year experience course affected the student adaptation of new undergraduate international students enrolled at Iowa State University for Fall 2015.

Responses from 115 undergraduate international students in this first-year experience course (serving as the treatment group) were compared against 92 other new international students not enrolled in the course (the control group) using an independent measures t-test. The survey included 93 questions divided into 7 demographic questions, as well as 86 questions dispersed among 7 academic, 6 cultural, and 1 satisfaction categories comprising multiple questions each that measured new international students' academic and cultural adaptation.

Two multiple regression analyses were also conducted using the sample above to determine how well the adaptation categories, which corresponded to concepts from current adaptation literature, predicted academic and cultural adaptation. Responses from 79 students in the first-year experience course were also compared via a repeated measures t-test to their earlier responses in an International First-Year Experience survey conducted as part of the international first-year experience course curriculum.

The themes that emerged are described as (1) academic connection, (2) personal exploration, (3) cultural connection, and (4) cultural empathy. By the end of the Fall 2015 semester, for the students enrolled in the international first-year experience course, both when

compared to the beginning of the semester and against a control group of first-year students not enrolled in the course, significant learning and the beginnings of adaptation had occurred. The course participants tended to be more engaged than their nonparticipant counterparts in their academic programs, more serious about learning, and were more aware of where and how to get help. They also tended to be more involved in social activities, encountered more diversity, and were more willing to venture out and explore U.S. culture.

This study showed that the course tended to best support some student adaptation gains when students engaged with people, especially over points of difference but also when they experienced the culture in a personal way, working to understand the culture. In general, though the course facilitated substantial student learning, which could lead to adaptation over time, the results of the study did not provide strong evidence of substantial academic or cultural adaptation in just three and a half months.

Recommendations for practice and future research included utilizing international first-year experience courses solely for undergraduate international students, including such courses in a comprehensive international student adjustment strategy, incorporating more faculty into teaching those courses, and expanding research into international first-year experience courses to include longer-term studies, as well as making use of qualitative and mixed methods approaches.

CHAPTER 1. INTRODUCTION

Background of the Study

With the announcement by the Institute of International Education that the number of international students studying in the United States for the 2015-2016 academic year reached above one million—a total of 1,043,839—the U.S. higher education system broke another record for international student enrollment, this time by 7% over 2014-2015. This was after a 10% increase over 2013-2014 (Open Doors 2015 Fast Facts, n.d.). This record international student mobility to the United States illustrates how international students continue to be a vibrant force in U.S. higher education. These students are coming in record numbers, but why do they come? Further, and even more important, how are they faring? How are they adjusting to this new culture, new environment? Also, are their institutions doing the right things to support them in this transition?

Each of these questions is important for U.S. higher education and merits substantial research. This study will focus primarily on the issue of how these international students, specifically new undergraduate international students, are adjusting to their campus culture at a large, Midwestern, public, land-grant institution, namely Iowa State University (ISU).

International Student Mobility

There have been various reasons over the years why international students (and their parents) have wanted to come to U.S. universities, such as Iowa State University—and various reasons why U.S. universities would want them to enroll. From the international students' perspective, their primary reason for attending U.S. universities is the same basic reason that U.S. students do—to prepare for careers, either in the U.S. or in their home countries.

Traditionally, most international students in U.S. universities have been graduate students. Although there have been short-term waves of larger groups of international undergraduates—Malaysians and Iranians in the 1970s, Japanese in the 1980s, and to some extent South Koreans and Indians in the 1990s—the great majority of international students in the 20th and early years of the 21st century were graduate students (Stiasny & Gore, 2013).

This situation started to change in 2008 when the number of Chinese undergraduate students began to rise in U.S. universities. This tremendous increase in Chinese undergraduate enrollment has primarily fueled the tremendous growth of international students at many U.S. universities, particularly larger institutions with strong STEM (science, technology, engineering, and mathematics) and business programs (Schiavenza, 2015; Bartlett & Fischer, 2011; Redden, 2014).

About 12% of international students are sponsored by their home governments or large companies overseas, such as ARAMCO in Saudi Arabia, with the idea that they would return to teach and conduct research in their home universities or add to the skilled workforce in their country (Farrugia & Bhandari, 2016). But most undergraduate international students—or more accurately, their parents—pay the full cost of the U.S. university tuition. This ability to pay full tuition without utilizing U.S. federal financial aid has made these students extremely attractive to U.S. colleges and universities, who have accordingly stepped up their recruitment efforts to attract these students (Redden, 2014, Fischer, 2015b).

Particularly for public institutions, which have seen their support from state legislatures go down to an average of 34.1% in 2012 from an average of 60.3% in 1975 across the country (American Council on Education, 2015), these international students are crucial for filling that

funding gap. Just since 2008, state governments have cut support for state universities by 17% while tuition has risen by 33% (Mitchell, Leachman, & Masterson, 2016; Saul, 2016).

According to NAFSA: Association of International Educators, for the 2015 – 2016 academic year, international students contributed \$32.8 billion to the U.S. economy (NAFSA International student economic value tool, n.d). At the local level, for the same period, international students contributed \$109.6 million to the economy of Ames, Iowa and the surrounding area (Iowa Benefits from International Students, n.d.).

While these undergraduate international students help meet a particular financial need for U.S. institutions, having international graduate students serves a different need for U.S. universities. Since an insufficient number of U.S. students have been enrolling in many science, technology, engineering, and mathematics fields for the last two decades, these academic departments have been recruiting international graduate students and providing them graduate assistantships to help teach courses and conduct research in these departments and research laboratories (Redden, 2013, Fischer, 2015a).

Employers have come to recognize that markets have become global and that their new employees need to be able to analyze problems with a global perspective, have experience working collaboratively across cultures, and can communicate effectively with diverse populations across the globe (Engberg & Hurtado, 2011; Fischer, 2015a; Fischer, 2012). Therefore, employers have been stressing to U.S. colleges and universities that their graduates need to have acquired these skills to make them better candidates for jobs and to be better able to compete on a global scale (Brustein, 2007; Hudzik, 2011).

This economic argument also points to the rationale for having more international students on campus since both international and U.S. students will benefit from having international students as a part of the campus environment and in the classroom. The additional benefit from this potential crosspollination of thoughts, ideas, and cultures is that it can lead to students gaining a greater awareness and understanding of their own and other cultures and greater intercultural competency. This is the basic argument for promoting the internationalization of U.S. college campuses (Peterson et al., 1999; DeWitt, 2002; Hudzik, 2011).

There is a fairly long history of students studying away from their home country and home institutions. From the beginning of universities in Europe in the middle ages, students from a variety of countries studied in the universities of England, France, Italy, and Germany. This study across national boundaries continued and slowly expanded into the modern era. For example, the governments of China and Japan provided support for students in the 1800s to travel to Western institutions to acquire knowledge and return to help industrialize and modernize these countries (Altbach, 1998). With the growth of the British empire, students from the colonies of Asia and Africa in the nineteenth and early twentieth century came to Great Britain for degree programs and returned with greater knowledge and skills and helped turn these colonies into nations (Atebe, 2011).

A significant development for the U.S. higher education system in the nineteenth century was the influence of German institutions, with their emphasis on academic freedom, research, and graduate education. This process was greatly facilitated by U.S. students' and professors' experiences with German higher education institutions. However, in the larger context, through much of the 20th century, U.S. universities were not that interested in international students or

internationalization in general. From even a longer-term historical perspective, sending students abroad or having international students on U.S. campuses has not been of great concerns for the United States as a country or for U.S. higher education institutions (Halpern, 1969; Goodwin & Nacht, 1991).

U.S. presidents from Washington through McKinley generally steered the United States away from world affairs while also trying to enforce the Monroe Doctrine, which called for European powers to mostly stay out of the western hemisphere. Theodore Roosevelt's entry into the Spanish-American war in 1898 and later Woodrow Wilson's taking the United States into World War I were early attempts to project a greater U.S. presence on the world stage. The rejection of the League of Nations and the general isolation of the 1930s were a reaction to this and just another example of the idea that the United States should "mind its own business" and stay out of world affairs (Henson et al, 1990).

The aggression of Germany and the attack on Pearl Harbor by Japan ended this isolationism for good. Any hopes of returning to the viewpoint that two oceans protected the United States from the world were ended with the technological advances in air and sea power and the accelerated advances in atomic weaponry. Further, World War II interrupted much study and research abroad, and by the end of the war, the U.S. perspective on world affairs had changed radically (Scarfo, 1998; de Wit, 2002).

In Goodwin and Nacht's (1991) perspective: "Views of the world in U.S. higher education were transformed almost overnight by World War II. From a cultural colony the nation was changed, at least in its own eyes, into the metropolis; from the periphery it moved triumphantly to the center" (pp. 4-5). Additionally, with the rise of the Soviet Union as a world

power with postwar ambitions, even most former isolationists conceded that the United States had to become more concerned with what was going on in the rest of the world (Scarfo, 1998).

After World War II, the foreign exchange emphasis changed from a focus on Europe and peace and understanding to more North-South academic exchanges, along with foreign policy and national security. U.S. governmental funding fueled most of these initiatives, such as the Fulbright Act of 1946, the Marshall Plan of 1947, the Point Four Program of 1949, and an agricultural technical assistance program, each of these with the primary goal of trumpeting democracy and capitalism over socialism and communism (de Wit, 2002; Scarfo, 1998).

The launching of the Soviet satellite Sputnik in 1957 led to a national emphasis and massive outlays in governmental funding for science, engineering, and area studies in higher education with the intention of catching or moving ahead of the Soviets in terms of science and national defense. The National Defense Education Act of 1958 provided substantial funding to train foreign language and area studies experts. Over the decades, through Title VI of the Act, the emphases were expanded to include the internationalization of undergraduate curricula, international business education, and support for overseas research centers (Scarfo, 1998).

The booming U.S. economy in the 1950s, 1960s, up to the oil scare of the mid-1970s only helped give the impression that as long as the U.S. kept the Soviets (and later the Chinese) in check, Americans could generally act independently throughout the world. They would not have to pay attention to actually *learning* other languages or about other cultures by inviting representatives of those cultures to study in the U.S. Thus, while it was a novelty to have some students and researchers in U.S. universities from other countries, other than concentrating on showing any foreign guests that they should really side with democracy over socialism, there

was no substantial push for a great international education agenda (Goodwin & Nacht, 1991; de Wit, 2002; Scarfo, 1998).

The major exception and push by the U.S. government to promote international exchange was through the its earliest and most prominent student and scholar exchange program—the Fulbright Program, named after the U.S. Senator, William J. Fulbright. Senator Fulbright introduced the bill in Congress in 1946 to create a program to send U.S. students and scholars abroad and to bring international students and scholars to U.S. institutions. However, at its core, the Fulbright program’s mission was and is not just to send Americans abroad to teach others how to build irrigation systems, plant better crops, or learn English or to have bright scholars come to the U.S. to learn theory and practical applications of theory. Its true goal is to inculcate the proposition that the United States is a great place, its people are nice and friendly, and that a foreigner’s exposure to Americans should help convince that foreigner to think kindly of the United States and not want to do the U.S. or Americans harm (Scarfo, 1998; Goodwin & Nacht, 1991).

With the fall of the Berlin Wall in 1989 and the demise of the Soviet Union in 1992, the emphasis from the U.S. government for supporting international exchange and cooperation in U.S. higher education changed again, away from such a strong emphasis on foreign policy and national security (though this did not go away entirely) to a stronger economic emphasis.

According to Lyman (1995):

For too long, international education, especially exchange and study abroad programs, were justified by a vague sense that such studies were the path to mutual understanding

and world peace, but today, internationalizing education in the US is proposed as a way to help restore our economic competitiveness in the world (p. 4).

By the start of the second decade of the twenty-first century, the emphasis on the economic aspects of international education was still strong. However, the terrorist attack of September 11, 2001, the wars in Iraq and Afghanistan, and the economic rise of China have also kept the U.S. government interested in supporting languages and area studies in the Middle East and China for national security concerns (Friedman, 2005; Stiasny & Gore, 2013). With the growing nationalistic resurgence of Russia, Russian area studies are slowly gaining more attention (Koshkin, 2015).

This ebb and flow and changes in direction regarding various aspects of international education—studying and researching abroad, investing in foreign languages, and recruiting international students and scholars to study and conduct research at U.S. higher education institutions through its funding of area studies programs, support of foreign language study, and other funding mechanisms has definitely affected the growth of international student numbers in the U.S.—enhancing their growth during some periods and not providing much support during other times (de Wit, 2002; Stiasny & Gore, 2013).

Over the course of U.S. history, although international students have not always been highly recruited or sought after in U.S. institutions of higher education, international students have a long history in the United States—with the first international student coming from overseas in 1784, and by 1946, 15,000 were studying in the U.S. (Jenkins, 1983). After World War II their numbers skyrocketed. By 1954, there were 34,000, by 1974 there were 155,000, and in 2000, over half a million were studying in the United States (Davis, 2000). For the 2015 –

2016 academic year, international students attended U.S. institutions in record numbers. A total of 1,043,893 international students were enrolled in U.S. colleges and universities, a 7% increase over the previous academic year and a 70% increase since the 2003 – 2004 academic year (Farrugia & Bhandari, 2016).

This slow but continued post-World War II growth in international student enrollment in U.S. institutions (apart from declines from 2002 – 2004 as a result of the U.S. government's tightening of nonimmigrant visa regulations in response to the September 11, 2001 tragedy) has generally mirrored world economic conditions. As economic conditions in other countries improved and living standards rose, families and governments were better able to afford sending their children and citizens to the U.S. for study (Stiasny & Gore, 2013; Bevis & Lucas; 2007).

Before World War II, most international students to the U.S. came from Canada and Western Europe. Following World War II, most international students' countries of origin were in either Asia, Europe, or Latin America. In the 1960s and 1970s, most students originated from Asia, with the largest numbers coming from Japan and Malaysia. In 1979 and 1980 most students came from the Middle East, predominantly from Saudi Arabia. From 1981 to the present, more international students come from Asia than any other continent, with the leading country changing over time from Japan, to South Korea and India, and since 1998 to China (Bevis and Lucas, 2007; Stiasny & Gore, 2013; Mervis, 2014).

International Student Challenges

What happens to international students when they arrive in their new American home? How do they adjust to their new environment? Berry (1997) describes some of the key issues:

What happens to individuals, who have developed in one cultural context, when they attempt to live in a new cultural context? If culture is such a powerful shaper of behavior, do individuals continue to act in the new setting as they did in the previous one, do they change their behavioral repertoire to be more appropriate in the new setting, or is there some complex pattern of continuity and change in how people go about their lives in the new society? (p. 6)

Undergraduate international students transitioning to university life in the United States need an incredible amount of information and support to make that transition successful. Although international students generally face many of the same issues in transitioning to a college campus as U.S. students, such as being on their own for the first time, learning to study productively, and adjusting to a new environment, they also have to deal with a new culture and often a new language (Hurny, 2014; Bastien, 2011; Zhao, Kuh, & Carini, 2005; Atebe, 2011).

To deal with these sort of adjustment issues for new international students, most universities interact with these new students through international student orientation programs, which generally concentrate on providing an extensive amount of information to students over a short period of time immediately prior to the start of the students' first academic term. These orientation programs often overwhelm students. Students can be facing communications barriers, jetlag, information overload, and culture shock—all at the same time (Bowman, 2015; Andrade, 2005; 2009).

During the course of a typical orientation program, varying from one day to up to two weeks, well-meaning orientation leaders, administrators, and faculty talk to the new international students about campus resources, classroom culture, social norms, student codes of conduct, and

federal nonimmigrant regulations. There is, in effect, so much to learn but so little time to put that information across before these international students move on to the next step of their journey—starting classes (Andrade, 2005; 2009).

So how have U.S. universities dealt with this issue? Some institutions have taken approaches to smooth out this learning curve. One approach is to educate and inform their new international students before they arrive on campus, as well as updating the traditional orientation program and enhancing that learning with a follow up orientation course. The key element guiding these efforts is determining what these international students need to know at these respective stages of their transition and then designing programs to target the appropriate learning (Bowman, 2015; Educational Advisory Board, 2014).

What these institutions have done is divide the information these students need to know into three different time stages. *Supporting International Students on Campus: 17 High Impact Practices to Ensure Student Success*, a 2014 Education Advisory Board publication, recommends a three-tiered approach for helping international students to successfully transition to university life in the United States. The three tiers include:

1. Delivering plenty of prearrival information to students and parents to help them prepare for arrival in the U.S.
2. Implementing a well-developed on-campus orientation program that focuses on the students' basic and immediate needs such as housing, registration, and paying tuition.
3. Continuing to provide students with timely information throughout their first semester to build campus connections through access to university resources to help the students acculturate and be successful (Education Advisory Board, 2014).

This study will focus on how this third-tier approach, in the form of a first-year experience seminar, has been used to support new international undergraduate students at Iowa State and how effective that has been in terms of supporting their learning and adaptation to their new culture.

Statement of the Problem

In many ways, international students, particularly undergraduate international students, face similar challenges as U.S. students in adapting to a new culture and environment, such as living away from home for the first time (Lin, 2006; Zhao, Kuh, & Carini, 2005; Hurny, 2014). But they can also experience difficulties that are more specific to students adapting to a new culture and educational system (and often to a new language as well) (Bochner, 2003; Fritz, Chin, & DeMarinis, 2008; Koltko-Rivera, 2004). Another issue is that international students often do not take advantage of campus resources to help them be successful (Tas, 2013; Sumer, 2009; Baysden, 2002). Research has also shown that international students can feel thankful for being able to study abroad and believe they just have to bear their burdens and not complain (Hayes & Lin, 1994; Lin, 2006).

Church (1982) states that interactions with host nationals can be the most important element of adjustment, and the quality (Ward & Kennedy, 2001) and quantity (Ward & Rana-Deuba, 1999) of these interpersonal relationships have been found to be helpful to psychological adjustment. Unsatisfying relationships with host country nationals have been associated with reduced sociocultural adjustment—particularly for international students (Berry, 1997; Stedford-Marquis, 2005).

To help these international students, universities have established international student offices and developed a variety of programs, services, and interventions run through these

international student offices, as well as other student and academic support services offices. One of the most enduring type of programs implemented by universities to assist all their new undergraduate students is the new student orientation. An outgrowth of this has been the first-year experience course or seminar (Greenfield, Keup, & Gardner, 2013; Barefoot, 1993).

Soria and Lueck (2016) include first-year experience courses composed of both U.S. and international students as one of several high-impact educational practices having positive impacts on students' academic skills and academic engagement. In contrast, Kovtun (2010) emphasizes the value of international student-only first-year experience courses because the curricula can be focused specifically to the needs of international student transition who then feel less inhibited and more willing to participate. Although there is a long history and widespread usage of first-year courses for all new undergraduate students as a whole group, there are few instances of first-year courses specifically tailored to the adaptation needs of new international undergraduates (Andrade, 2005; 2009; Kovtun, 2010; Bowman, 2015).

Also most research on student engagement and adjustment has been conducted with primarily White students (Keup & Barefoot, 2005; Kinzie, 2013; Glass, 2012). This study has been undertake to help add to the research and discussion by focusing on a first-year experience course and its impact on international students at a large, Midwestern U.S. university.

Purpose of the Study

The purpose of the study is to analyze whether the first-year experience course for undergraduate international students at Iowa State University had a significant impact on adaptation to the university and U.S. culture for students enrolled in the university's inaugural international first-year experience course in Fall 2015. Adaptation is defined many ways. Berry (1997) has characterized adaptation as how well the new member of the culture is able to *fit* into

the mainstream cultural environment. Castro (2003) describes adaptation as “the process of adjustment to the conditions in the environment,” as well as “the development of cultural and social skills, sensibility to the beliefs, values, and norms of the new culture and the acquisition of adequate communication skills for interacting effectively with the host-culture” (2003, p. 13).

The first-year experience course for new international undergraduate students at Iowa State University was developed to provide students with helpful and important information regarding campus and community resources, help with engagement with faculty and U.S. students, and enhance opportunities for student engagement and success. Further, rather than being provided before most other students or faculty were on campus and in a very compacted timeframe, this information would be provided in manageable doses and at a time in the new student’s academic and cultural life on campus when it would be more beneficial—after the student had started classes and begun to engage with faculty, staff, other students, and the community beyond the campus boundaries (Anderson, 1994).

Research Questions

Although a wide variety of questions can be posed related to the subjects of international students, their adaptation to U.S. university life, and first-year experience courses, this research study will be limited to the following questions:

1. Did participation in the international first-year experience course lead to gains in academic and cultural adaptation for the international students enrolled in the international first-year experience course?
2. What were the changes in terms of international student adaptation for the students enrolled in the international first-year experience course?

Significance of the Study

This is a quantitative case study analyzing an institutional strategy for supporting new international students. Part of the real value of an international first-year experience course is the support it can provide to an international student population at a particularly trying time for them. They face many of the same issues that U.S. students face—being away from home for the first time, and thus having to do such things as go to class, manage their time, do their homework, and do all these things while dealing with the temptations of gaming, partying, and procrastinating. Yet for international students, they have these same issues but for most of them, they have to deal with these issues while also contending with a language, educational system, and cultural environment that is different from their home. For these new undergraduate international students, this first-year experience course can accelerate their learning about and adaptation to their university and new culture.

By helping these students learn how to be successful students, how to better reach out to and interact with their professors and fellow students, and explore and understand their new home and culture, this course can help enhance the students' undergraduate experience, as well as their GPAs. Also, having international students being successful, engaged, and happy with their experience can lead to better recruitment and more international students. Additionally, the course can help improve retention and persistence of international students by helping these students to deal with adaptation issues earlier and more successfully.

Although one of the limitations of this study is that it was undertaken with a moderately small sample size and is limited to the new undergraduate international students at only one large, Midwestern, public U.S. university, there have only been a few studies similar to this one. The data from this study will help inform higher education professionals about an aspect of

working with a group of first-year students that has not been adequately explored. Especially for professionals working with orientation programs, first-year experience foundation programs and seminars, and international educators working to provide better orientations for new international students, this study could provide helpful insights.

But the welfare and success of international students is also of great importance for colleges and universities because international students are a key component to enhancing the internationalization and international stature of a university. Also in the past decade as financial support has decreased for public institutions, international student tuition dollars have become a growing portion of universities' bottom line. For example, starting with the summer 2016 term, Iowa State University initiated an international student tuition supplement (International Tuition, n.d.).

Limitations

One limitation of this study comes from its sample. This sample is drawn from one university with its own set of characteristics. It is located in the Midwest, is public, and is a land-grant institution. This quantitative case study was not a full-fledged experiment since the student participants were not randomly selected. The students for the first-year experience course self-selected themselves into the course. Another limitation is the short time span. A more robust analysis would utilize more longitudinal data over a longer time span. The study concentrated on two points in time at the beginning and the end of the Fall 2015 semester. Another limitation is the international tuition supplement international students at ISU have to pay and how this could impact their perceptions and responses. Finally, the survey results come from self-reported data, with some of the students participating in the survey to complete course requirements.

Definition of Terms

Adaptation. The cognitive, attitudinal, behavioral, and psychological changes an individual undergoes living in a new or foreign culture. These changes result in the individual's movement from uncomfortableness to feeling at home in the new environment (Hannigan, 1990).

Adjustment. "Adjustment can be conceptualized as a psychosocial concept which has to do with the process of achieving harmony among the individual and the environment. Usually this harmony is achieved through changes in the individual's knowledge, attitudes, and emotions about his or her environment. This culminates with satisfaction, feeling more at home in one's new environment, improved performance, and increased interaction with host country persons" (Hannigan, 1990, p.91).

Acculturation. Acculturation is defined as changes a person makes in his or her behaviors, beliefs, and values that occur as a result of sustained contact between two or more cultures (Berry, 1997).

Acculturative stress. A feeling of discomfort resulting from an individual interacting with a new cultural environment and having to make choices and decisions (Berry, 1997).

Culture Shock. Defined by Oberg, culture shock describes "the anxiety resulting from not knowing what to do in a new culture" (in Pedersen, 1995, p.1).

F-1 student: A student with an F-1 nonimmigrant status engaged in an undergraduate, master's, or doctoral degree program or studying English as a second language. In some instances, F-1 students can be in a nondegree program of study as well. Approximately 90% of all international students studying in the U.S. have an F-1 status (Farrugia & Bhandari, 2016).

First-year experience course: According to Barefoot (1993), the first-year experience course “is intended to enhance the academic and/or social integration of first-year students by introducing them (a) to a variety of specific topics which vary by seminar type, (b) to essential skills for college success, and (c) to selected processes, the most common of which is the creation of a peer support group” (p. 49).

International student. For the purposes of this study, a student who has a nonimmigrant status who is studying in a U.S. college or university in a degree program. For the Iowa State University context, these international students pay nonresident tuition with an international tuition supplement of \$250 per semester for 2016-2017 that will rise to \$750 per semester by Fall 2018 (International tuition, n.d.).

J-1 student: A student with a J-1 nonimmigrant status engaged in an undergraduate, master’s, or doctoral degree program or studying English as a second language. In some instances, J-1 students can be in a nondegree or exchange program of study as well.

U.S. nonimmigrant status. A status held by an individual in the United States who does not have U.S. citizenship or permanent residency, such as an F-1 student status.

Organization of the Dissertation

This dissertation is divided into chapters. Chapter One provides a background and introduction to the study. Chapter Two provides an overview of the current literature concerning U.S. and international student adaptation to U.S. universities and first-year experience courses designed for all students and then for international students.

Chapter Three outlines the methodology used for conducting the study, including a rationale for the quantitative methodology, and includes a restatement of the research questions,

a discussion of the participant sample, the International First-Year Experience survey, the first-year experience course, the survey instrument used, data collection, and data analysis. Chapter Four lays out the study's results and analyzes the quantitative methods. Chapter Five concludes the dissertation by providing for a discussion of the study's results and then describes conclusions, implications, limitations, and recommendations for practice and for further research.

CHAPTER 2. LITERATURE REVIEW

This chapter provides a survey of the relevant literature relating to student adaptation and first-year experience courses. A brief review of research concerning U.S. and international student adaptation to U.S. universities is provided. This is followed by a review of first-year experience courses in general and then a look at those seminars and courses for international students. Finally, a theoretical framework for the study is provided.

U.S. Student Adaptation to U.S. Universities

Much of the literature in U.S. higher education around students succeeding in college has been built around student involvement and engagement. Being successfully engaged and involved in the university culture is a core component in successful student adaptation. Therefore, the literature concerning U.S. student adaptation to college is the literature related to student engagement, involvement, and student success. This research is often represented in the work, models, and theories of Tinto's (1975, 1993) Interactionalist Model, Astin's (1984) Theory of Student Involvement, Bean's (2005) Conceptual Model of College Student Engagement, and Pascarella & Terenzini (2005) work on the impacts of college on students. Components of these theories and models are often combined with Astin's (1991) concept of involvement and Bean's (2005) factors of organizational determinants together to form the concept of Involvement in Campus Connections. These connections cover both academic and social spheres, aligning with Astin's (1984) concepts of academic and social integration.

In their Psychological Model of Student Retention, Bean and Eaton (2000) focus on the interaction of students' existing psychosocial attributes (influenced by their abilities, experiences, and self-assessment) with their new environment. As students interact with others on campus, their psychosocial attributes affect their interactions and how they process the

interactions themselves. These interactions then influence how students feel about themselves and whether they believe they belong at that institution. Positive interactions can lead to an increased sense of self-worth, self-control, and a greater ability to cope with problems and stress, or in other terms positive cultural adaptation to the new environment. These feelings can then enhance the students' motivation to study, integrate into the campus culture, and ultimately persist and graduate (Bean & Eaton, 2000).

One recent blending of several of these models and theories is Schreiner's (2010, 2013) Thriving in College model. Schreiner (2010, 2013) has taken student engagement and success literature from higher education, particularly Astin's (1993) Input-Environment-Output model and Bean and Eaton's (2000) Psychological Model of College Student Retention and synthesizes them with an emphasis on positive psychology. These higher education models point to the importance of student entry characteristics and interactions with the college environment for student success and outcomes including cultural adaptation, as well as GPA, retention, commitment to the institution, and graduation (Schreiner, Louis, & Nelson, 2012).

Within psychology, Schreiner (2010, 2013) brings in the emerging positive psychology research (Keyes, 2003; Seligman, 2011) and its emphasis on "flourishing" (Keyes, 2003; Seligman, 2011). Pulling from these two fields, Schreiner (2010, 2013), creates the Thriving in College model. This conceptual model shifts the emphasis for college students from simply surviving to flourishing or thriving in college. The Thriving in College model has five factors: engaged learning, academic determination, positive perspective, social connectedness, and diverse citizenship. Engaged learning focuses on students being positively engaged in their learning and the world around them.

These are just some of the theories and models that have equated successful U.S. student adaptation to the campus culture and/or environment with successful student engagement or involvement with it. The next section will discuss how the student adaptation literature relating to international students has developed in some ways similar to but also different from the literature discussed above.

International Student Adaptation to U.S. Universities

The research on international student adaptation has focused on a diversity of topics. One is acculturative stress since international students often are unfamiliar with U.S. customs, beliefs, and values—as well as more practical things such as slang, food, and some U.S. sports. This can lead to psychological difficulties (Berry, 1997). Church (1982) sees acculturative stress as the psychosocial stressors a person would encounter based on unfamiliarity with new customs and social norms. Henri (2015) reports that international students think more about the meaning of life than U.S. students and use these reflections to ease acculturative stress. Laughrin (1998) found that particularly among East Asian students, these students place a greater emphasis on academic adjustment over adjusting to the culture at large and tend to downplay cultural stress issues.

Much of the literature about international student adaptation has concentrated on the adaptation journey that students from a particular country or region take. Fritz, Chin, & DeMarinis (2008) found that Europeans and Asian students had more adjustment problems with social issues. Language adjustment was a greater burden for Asian students, while European students felt more homesickness. Wang (2004) discusses the academic issues international students can face related to their lack of familiarity with the academic culture in U.S. institutions, especially practices such as greater interactions with faculty, active class participation, and for

graduate students, their work as research or teaching assistants. And any issues with less than adequate English proficiency can only exacerbate a situation (Wang, 2004).

Lee (2008) studied East Asian students and found English language skills as the best predictor of psychological adjustment and a significant predictor of sociocultural adjustment, along with social support satisfaction. Perceived English proficiency was found to be a significant predictor of acculturation stress among East Asian international students. Pham (2013) studied the adaptation of Korean, Malaysia, and Taiwanese undergraduate students and concluded that the Malaysian and Taiwanese students were better adapted than the Korean students and all the participants were better acclimated in terms of academic adaptation than social development.

In recent years, there have been more studies of Chinese students as the general enrollment of Chinese undergraduate students has exploded. Lin (2006) looked at social self-efficacy in Chinese students, whose self-efficacy was report to be much higher in Chinese-language settings than in English-language settings, and their self-efficacy in English was the major influence on their student adjustment. Ma (2014) documented the first-year academic experiences of Chinese students in a university in the Western United States. The students she studied had issues dealing with their new-found personal freedoms and being responsible for their own learning, though in the end, their academic progress was comparable to their U.S counterparts.

Zhang (2005) compared the adaptation of undergraduate and graduate Chinese students in the U.S. and found undergraduate students less involved in and serious about their academic work than graduate students. Hurny (2014) speculated that Chinese students as a group have a

greater set of problems and issues than any other international group in terms of adapting and adjusting to U.S. campuses and culture. Her main conclusion was that English-language proficiency was the single most important influence on cultural adjustment for Chinese students.

Several researchers have taken on rather narrow topics related to international student adaptation. Farkas (2005) studied where international students lived and how that affected their adaptation and determined that there was no significant difference in terms of adaptation between living off-campus, with a U.S. roommate, or living with other international students but that women do better than men in these various living arrangements. Checo (2014) examined how international students' consumption of media affected their cultural adaptation and concluded that their interaction with media in English increases as the students become more acclimated to the new culture.

Glass (2012) analyzed twelve specific educational learning experiences grouped as curricular, cocurricular, or community to determine how they are related to international undergraduate adaptation in terms of learning, development, and perception of campus climate. Glass (2012) found that international students who take classes rich in intergroup dialogue, engage in leadership programs, and interact with their own cultural groups see their campus climate more positively. International students who also engage in community service, and actively learn more about diversity, race, and other cultures seem to have higher levels of learning and development.

Baysden (2002) focused on international student adaptation and student perceptions of seeking mental health assistance and determined that a student's attitude toward the stigma of mental health affected their likelihood to seek mental health assistance. Andrews (1999)

analyzed the role of training, cultural distance, and personality in international student adjustment and found that how different the student's home culture was from U.S. culture greatly affected the student's cultural adaptation. Finally, Gomez, Urzua, & Glass (2014) looked at how social networks and leisure affect international student adjustment. They determined that adaptation is positively correlated with participation in leisure activities, and international students will increase their time in leisure activities as they become more acclimated. This is just a sample of the breadth of studies that have focused on international adaptation.

General First-Year Experience Courses

Historically speaking, first-year experience courses or seminars have been around since the late nineteenth century (Barefoot & Fidler, 1996), though institutions only really starting using them in the 1970s and 1980s as more nontraditional students and traditionally underrepresented students began to enroll in higher education. The first national conference on the “freshman seminar/freshman orientation course” was held in 1982 (Keup & Barefoot, 2005). As these populations new to higher education began to experience issues with persistence into the sophomore year, universities began to make greater use of first-year experience seminars (Gardner, 2001).

Most studies related to first-year courses focus on how these courses impact persistence to graduation, academic performance, and retention—and that the impacts are generally positive in these areas (Fidler & Moore, 1996; Starke, Harth, & Sirianni, 2001)—regardless of gender, race and ethnicity, major, or residential status (Starke, Harth, & Sirianni, 2001; Sidle & McReynolds, 1999). Barefoot (1992) offered a definition of the contemporary first-year experience course:

The freshman seminar is a course intended to enhance the academic and/or social integration of first-year students by introducing them (a) to a variety of specific topics which vary by seminar type, (b) to essential skills for college success, and (c) to selected processes, the most common of which is the creation of a peer support group (p. 49).

Barefoot (1992) also created a typology of five distinct seminar types that are still the predominant types of first-year experience seminars. Those types are:

1. Extended orientation seminar. Sometimes called a freshman orientation, college survival, college transition, or student success course. Content likely will include introduction to campus resources, time management, academic and career planning, learning strategies, and an introduction to student development issues.
2. Academic seminar with generally uniform content across sections. May be an interdisciplinary or theme-oriented course, sometimes part of a general education requirement. Primary focus is on academic theme/discipline but will often include academic skills components such as critical thinking and expository writing.
3. Academic seminars with variable content. Similar to previously mentioned academic seminar except that specific topics vary from section to section.
4. Pre-professional or discipline-linked seminar. Designed to prepare students for the demands of the major/discipline and the profession. Generally taught within professional schools or specific disciplines.

5. Basic study skills seminar. The focus is on basic academic skills such as grammar, note taking, and reading texts. Often offered for academically underprepared students.

(Barefoot, 1992, p. 72)

In looking at the future of the first-year experience seminar in U.S. higher education, Kinzie (2013) called for a greater diversity in the types of methodologies used, along with more sophisticated methods. She stressed that assessments should look beyond the common outcomes of persistence and academic achievement and focus more on such things as critical thinking, civic engagement, and intercultural competency. There should be an increase in in-depth study of evidence-based research. Finally, she called for expanding the populations studied and supporting the methods and measures that best represent that student experience (Kinzie, 2013). This would include international students.

International Student First-Year Experience Courses

Although U.S. universities have had many years to work with international students, there is still much to be done in this area. Just as universities are still figuring out how best to support U.S. students, particularly underrepresented groups, working with international students continues to present a challenge. One approach that research has shown to be helpful to international students is providing a formalized introduction to university life (Bowman, 2015; Andrade, 2005; 2009). This has come to be known as new international student orientation. Research indicates that although approximately 95% of institutions have some sort of orientation for their domestic and international students, not all of them have more extensive ongoing orientations or first-year experience seminars for their students, though many do (Kaup & Barefoot, 2005).

A wealth of information is available on first-year experience programs. But these programs either have been tailored (a) for all new first-year students to U.S. colleges and universities, with international students being included in the mix, (b) directed toward students in certain majors or colleges, or (c) toward first-generation or underrepresented U.S. students, as described in the types of programs Barefoot (1992) outlined above. Although a number of universities are conducting specific programs for international students, there has been little research documenting these programs or specific studies based on one-time programs.

One of the most comprehensive sources for information and resources on first-year experience courses is the National Resource Center for The First-Year Experience & Students in Transition, based at the University of South Carolina. This center has published two books that provide detailed sketches of excellent first-year experience courses at higher education institutions through the United States. In *Exploring the Evidence: Reporting Research on First-Year Seminars Volume III* (Tobolowsky, Cox, & Wagner, 2005), of the 39 first-year experience seminar highlighted, none of them were focused on international students. In *volume IV* of this series, published in 2008, only one seminar of 22 highlighted international students (Griffin & Romm, 2008).

Campbell, Saltonstall, and Buford (2013) provided a content analysis of the *Journal of The First Year Experience and Students in Transition*. They analyzed over 250 articles of that journal from 1989 to 2013. Their analysis did not discuss a single study focusing on international students and the first-year experience.

There are also only a few articles detailing comprehensive first-year experience seminars for international students. Two are highlighted here. Gordon (2009) discussed a 12-week

orientation course at the University of Southern California for international students and how it was helpful for these students in terms of helping them to gain better access to campus resources. Bowman's (2015) article describes first-year seminars at the University of California-Irvine, Syracuse University, and the University of Iowa and their advantages for international students in terms of supporting their learning and adaptation.

From a conference presentation, McCullough and Solko (2013) described an eight-week international seminar course for incoming graduate students at Fort Hays State University that was also encouraged for their incoming undergraduate population as well. Despite these portrayals, which point to the positive impact of these seminars, in-depth analyses of first-year foundations courses or seminars are generally lacking. And for the seminars that are being conducted for international students, assessments are not making their way into professional journals or books by the National Resource Center for The First-Year Experience & Students in Transition.

Two studies that detail first-year experience courses for international students are available for review. One study is Andrade's (2009) study of a first-year foundations seminar for English as a Second Language students at Utah Valley University. Her study findings indicate that the seminar had a positive effect on the students' participation in activities in and outside the classroom, their sense of belonging to the new culture, and interaction with U.S. students (Andrade, 2009).

The second study focusing on an international first-year experience course is Kovtun's (2010) dissertation study, which examined the effects of a first-year foundations course for international undergraduates at the University of Nebraska on the students' academic and

cultural adaptation. Kovtun (2010) used a mixed method design of quantitative and qualitative methodologies. The study provided a correlation between the course and improvement in the students' writing, presenting ideas, goal setting, and critical thinking. Students were found to be more comfortable with people from diverse backgrounds and gained a better understanding of social diversity.

Theoretical Framework

One of the theories often cited in studies of cultural adjustment is Lazarus' Transactional Model of Stress and Coping (Lazarus, 1984; 1991). According to this model, when a person encounters some new life event or change in environment, the person will conduct a "primary appraisal" to determine the best coping mechanisms to use to handle that situation. This appraisal determines how much stress the person experiences (Lazarus, 1984; 1991).

Berry (1997) used Lazarus' transactional theory with its emphasis on stress and coping to develop his Acculturation model. Berry describes acculturation as changes a person makes in his or her behaviors, beliefs, and values that occur as a result of sustained contact between two or more cultures (Berry, 1997).

Berry's framework involves both group-level factors and individual variables to influence an individual's acculturation. The group-level factors include characteristics from both one's home culture (political and economic background, as well as group demographic elements) and the new host culture (attitudes toward outsiders and levels of support for new members), as well as group-level cultural changes and interactions. These group factors interact with individual-level variables that the person brings to the new culture, such as the person's age, gender, socioeconomic status, and personality. These group factors impact the person's life events, which create stressors. Based on these stressors, the person will develop coping mechanisms,

which will cause some level of stress, eventually leading to adaptation. And all around the person will be moderating factors impacting him or her, such as the length of the person's stay in the new culture (Berry, 1997; Guinane, 2004). This model is represented in Figure 1 below.

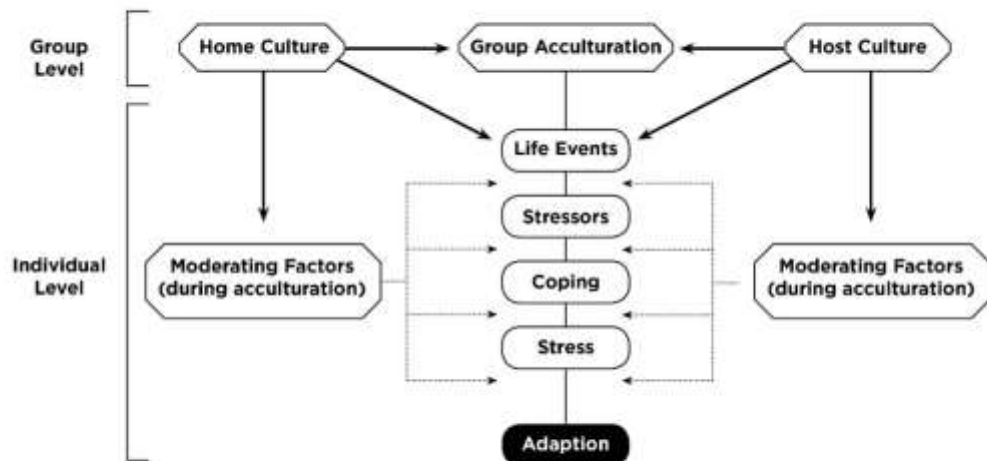


Figure 1: *Berry's Acculturation Model*

In figuring out how to navigate the new culture, the new person will develop some level of acculturative stress, as a result of countless primary appraisals the person will undergo. Berry (1997) argues that how the person handles that stress depends on which of four acculturation strategies he or she uses.

These four strategies are constructed at the intersection of two factors: decisions related to remaining connected to the home culture and decisions related to accepting and embracing the beliefs, norms, and values of the host culture. These four acculturation strategies include assimilation, separation, integration, and marginalization and are represented below in Figure 2.

The assimilation strategy involves a gradual change from an emphasis on the home culture to emphasizing the host culture and mostly giving up the home culture identity. The separation strategy involves wanting to maintain one's own culture and avoiding interactions with the new culture as much as possible. The integration strategy belies an interest in participating in the new culture but also keeping ties to the home culture as well. Finally, the marginalization strategy has the person not identifying with either the old or the new culture and may also not be accepted in either culture (Berry, 1997).

	Maintaining Connections to the Home Culture	Neglecting Connections to the Home Culture
Embracing Norms of the New Culture	Integration	Assimilation
Rejecting Norms of the New Culture	Separation	Marginalization

Figure 2: *Berry's Acculturation Model Strategies*

Another model for looking at international student adjustment is Oberg's (1960) Culture Shock model, illustrated below in Figure 3. Culture shock is described as the disorientation that is caused by the loss of signs, clues, and symbols necessary for social interaction (Chapdelaine & Alexitch, 2004). There are four stages to culture shock, though not every new member to a culture will go through all the stages, and no two people will take the same amount of time to go through the various stages. The time frame for this four-step process could vary from a few months to several years (Oberg, 1960).

The stages are:

- Honeymoon stage: a time of excitement with the new culture where interactions and perceptions seem overwhelmingly positive.
- Negotiation stage: A general feeling of fatigue with having to deal with small cultural adjustment that can lead to frustration.
- Adjustment Stage: The ability to manage the small cultural adjustments and being better able to navigate the environment.
- Adaptation Stage: The ability to full participate in the new culture. This does not necessarily imply assimilation, but more integration in Berry's (1997) terms (Henderson, Milhouse, & Cao, 1993).

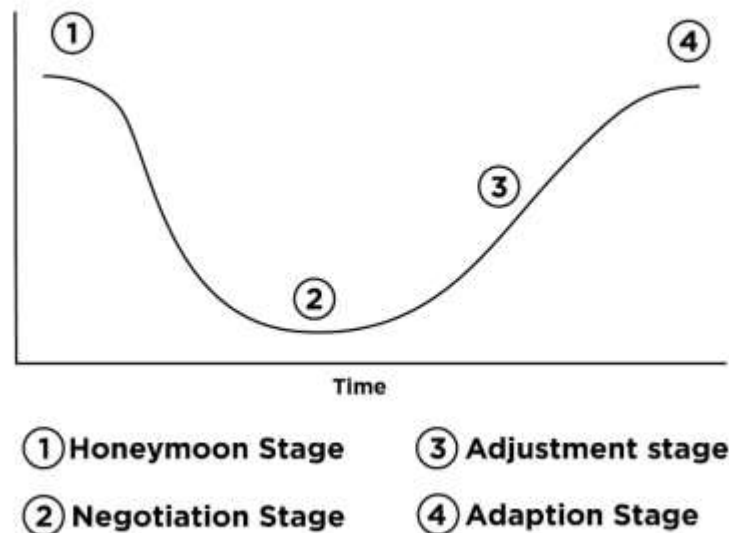


Figure 3. *Oberg's Culture Shock Model*

In many regards, adjustment for undergraduate U.S. students is quite similar to the adjustment process for international undergraduate students. Even if the U.S. students have grown up in the United States, a new place such as a university with new rules, both written and unwritten, new social structures, and new freedoms require them to go through their own type of cultural adaptation.

A third model for framing the discussion of student adaptation that incorporates both international and U.S. students, is Astin's (1993) Input-Environments-Output (I-E-O) model, which is represented below in Figure 4. In Astin's (1984) earlier Theory of Student Involvement, he argues that the greater the emphasis the student places on being involved with the campus and the more physical and psychological energy he or she devotes to academic work, the more meaningful the student's academic experience will be—and the better the academic result. But the responsibility for engagement and success is on the student.

Astin's (1993) Input-Environments-Output model offers one means to track the various components of student adaptation. As students—both U.S. and international—grow, change, and adapt to their new culture and environment, the I-E-O model is a worthwhile perspective for looking at that adaptation and perhaps the best model of the three presented here for framing the present study.

Inputs: the individual skills, qualities, and attributes the students bring to the new culture. These can be their academic background, their native and English language abilities, their individual and group demographic factors (Berry, 1997), and their understanding of the new culture's mores, customs, and norms.

Environment: these represent the students' lived experiences, such as going to class, living with a roommate, eating with others, working in groups, or shopping.

Output: these represent the knowledge and skills the students develop and learn by interacting with the environment/new culture over time (Astin, 1993).

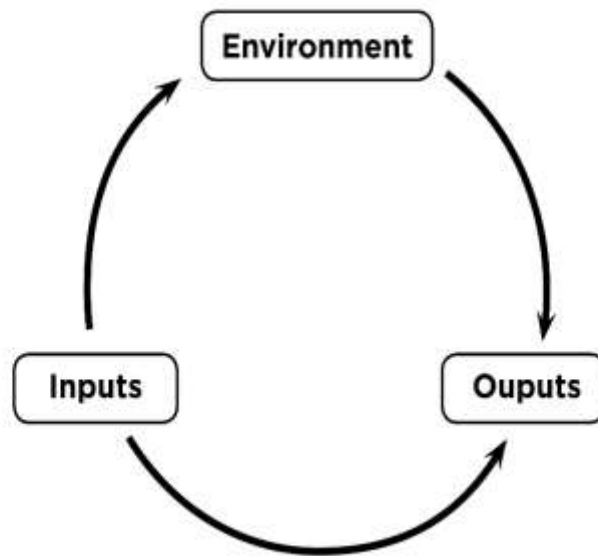


Figure 4. *Astin's Inputs-Environment-Outputs Model*

Hurny adapted Astin's (1993) Input-Environment-Output (I-E-O) model to create a tangible framework for analyzing Chinese students' cultural adaptation process. Her input variables included academic major, cultural values, English language proficiency, gender, and time in the U.S. The environmental values included acculturative stress, social and academic expectations, and campus preparedness. The outcome variable was cultural adjustment as measured by determination to persist.

In terms of this study, the input variables are represented by the potential student demographic variables from the survey that may be used, to include age, gender, country of citizenship, immigration status, major, college, and participation in the international first-year experience course. The environment variables are represented by the student perceptions on the questions of the 13 academic and cultural adaptation categories, which represent their *actual* experiences of living through their first 3.5 months in their academic program and campus life at Iowa State University. Finally, the output for this study is the dependent variable of student learning or student adaptation. This output variable is measured through the levels of satisfaction with university education and satisfaction with university life.

Astin's (1993) I-E-O model also appears to be a good fit with the working definition of adaptation as presented in Chapter One. Adaptation is defined as the cognitive, attitudinal, behavioral, and psychological changes an individual undergoes living in a new or foreign culture. These changes result in the individual's movement from uncomfortableness to feeling at home in the new environment (Hannigan, 1990). This definition is similar to the I-E-O model in that it allows for a variety of individual cultural changes based on personal characteristics, thus moving directly from Input to Output. Or the changes can be influenced by a variety of environmental factors that route the changes from Input to Environment to Output. In summary, this study examines a group of diverse international students fairly new to their culture (inputs) as they interact with their surroundings (environment), primarily either in the first-year experience course or not, whose levels of cultural adaptation are then measured and analyzed (outputs).

Although there may be other theories and models that can describe international student adaptation to the U.S. college and university environment and general U.S. culture, the three

models described outlined above seem to provide a good perspective for analyzing that adaptation. Each of these models in its own way outlines a journey a cultural outsider—in this case, an international student at a U.S. university—can take as he or she fits in and starts with many ups and downs to slowly become a cultural insider utilizing Berry's (1977) Integration or Assimilation strategies or Oberg's (1960) Adjustment stage.

Of these, the current study will draw most heavily on Astin's (1993) Input-Environment-Outputs model as a framework. The Inputs-Environment-Outputs model seems to provide a suitable structure for framing this study of new international student inputs, examined in their new environment, with their outputs examined using quantitative methods.

Summary of Literature Review

The survey of the relevant literature for this study highlights research related to student adaptation for U.S. students and then for international students. This is followed by a review of the literature related to general first-year experience courses and then those working with international students. A sketch of research concerning U.S. student adaptation, which focused on the prevailing theories and models related to student engagement, involvement, and student success is then presented. The review of international student adaptation looked at a variety of studies from those focusing on various aspect of international student adaptation, such as stress and coping mechanisms, relationships to leisure activities, or studies related to students from certain countries or regions of the world.

The review of general first-year experience courses discussed the various types of first-year courses and their emphasis on the general subjects of interest in enrollment management—persistence to graduation, GPA, and retention—and that assessments of these types of course should be expanded (Kinzie, 2013). The review of the international student first-year experience

courses focused on the lack of research in this area. The chapter concluded with a short survey of several theoretical models, including Lazarus' (1984; 1991) Transactional model, Berry's (1997) Acculturation model, Oberg's (1960) Culture Shock model, and Astin's (1993) Inputs-Environment-Outputs model, and the conclusion that Astin's (1993) Inputs-Environment-Outputs model was the best models for framing this study.

CHAPTER 3. METHODOLOGY

This chapter provides a description of the research methodology used for this study. The chapter begins with a restating of the research questions, followed by a description of the study design, and an explanation of the student participants. Next comes a sketch of the international first-year experience course, the International First-Year Experience survey instrument, the International Student Adaptation survey instrument, and the procedures followed for data collection and data analysis.

As described in the previous chapter, most of the general research about student adjustment to college life has centered on U.S. (predominantly White) students. And although first-year experience courses have often been a worthwhile approach to assist with this adaptation to college, their effectiveness for the international student population has not been adequately studied or reported (Andrade, 2009; Kovtun, 2010; Soria & Leuck, 2016).

Research Questions

The following are the research questions that guide this study:

1. Did participation in the international first-year experience course lead to gains in academic and cultural adaptation for the international students enrolled in the international first-year experience course?
2. What were the changes in terms of international student adaptation for the students enrolled in the international first-year experience course?

Study Design

Based on the study's specific research questions, a quantitative research methodology was used to analyze relationships: relationships based on a population of international students in a particular cohort. Specifically, the study assessed how a first-year experience course affected two groups of students over the duration of the semester—students who enrolled in an international first-year experience course and those who did not. The methods used to conduct these analyses are described later in this chapter.

The most robust quantitative studies generally include random sampling and an experimental research design (Cresswell, 2003). Although this study involved a treatment group and a control group like an experiment, the sampling for the participants was not random. Either the students self-selected themselves for the first-year experience course or the members of the control group were purposefully selected based on the eligibility criteria of being first-semester international undergraduate students.

Participants

The study's target population was first-year international undergraduate students at Iowa State University. For the purpose of this study, an international student at Iowa State University is defined as a student holding a legal nonimmigrant status who had entered the United States to study in an English-language, bachelors, masters, or doctoral degree program. English as a Second Language students were not included in this study since they were not be eligible to enroll in the international first-year experience course. The great majority of the participants had an F-1 or J-1 nonimmigrant student status. Most of these students have completed their high school in educational systems outside the United States, although a growing number of

international students now come to the United States for at least a year of high school (Redden, 2014; Larmer, 2017).

For Fall 2015, Iowa State University enrolled 36,001 students. Of these, 30,034 were undergraduates. From this number, 4,041 were international students, representing over 11% of the total student enrollment and 130 countries. The undergraduate population of 2,138, represented 52.9% of the international population, down from a high of 57.2% in 2013, an increase from a ten-year low of 30.2% in 2006.

The great majority of the international student population was from Asia, representing almost 86% of the international students at ISU. Among all countries represented, China has the largest student population of 1,765—more than the next four student groups from India (558), Malaysia (300), South Korea (231), and Iran (85) combined (Fall 2015 Enrollment, n.d.; University-wide international student gender distribution; n.d.; University-wide international student top 10 countries of citizenship, n.d.).

Based on the particulars of this sample, among all first-year undergraduate ISU students for Fall 2015, there were nearly twice as many males (60.87%) as females (39.13%), almost all between the ages of 18 and 22 (93.24%), mostly from Asia (79.70), with F-1 nonimmigrant status (99.03%), and with majors in business, engineering, mathematics, or computer science (82.16%).

Since this study looks only at first-year undergraduate ISU international students, one may wonder how closely this sample mirrors the population of all first-year international students in U.S. institutions in Fall 2015? Those data are not available, but the Institute of International Education does provide data on total undergraduate international student numbers

reported through their 2016 Open Doors report (Farrugia & Bhandari, 2016). Although this comparison is not apples to apples, it is still interesting to note how closely the ISU first-year cohort compares to the national population of international undergraduate students. These figures are not that different from the national numbers, as shown in Table 3.1 below, except for majors in engineering, where ISU had nearly twice the national undergraduate average (approximately 46% versus 24%):

Table 3.1

Comparison of Iowa State University First-Year Undergraduate International Student Sample with U.S. Undergraduate International Student Population

Categories	Iowa State University	U.S. International Undergraduates
Males	60.87%	56.70%
Females	39.13%	43.30%
Asia	79.70%	64.30%
Business	21.26%	25.39%
Engineering	45.89%	24.25%
Mathematics Computer Science	14.27%	8.49%
F-1 Nonimmigrant	99.03%	91.70%

Since this study is focused on the effects of a first-year experience course for international undergraduate students, the potential participants included first-year undergraduate

international students who started their academic programs at Iowa State in Fall 2015 and either enrolled in the international first-year experience course or did not. As described below, the international first-year experience course, created as an experimental course and designated University Studies 110X (U ST 110X), enrolled its first cohort of students in Fall 2015.

The students enrolled in U ST 110X who agreed to participate in the study served as its treatment group, while the incoming international undergraduate students who did not enroll in U ST 110X but participated in the survey served as the control group. The students who participated in the study were from 43 countries, included both male and female students in a variety of majors, with ages ranging from 18 to 30.

International Student First-Year Experience Course

During 2013 and 2014, while in my role as director of the International Students and Scholars Office (ISSO) at Iowa State University, I worked with the Associate Dean for Finance and Operations in the College of Liberal Arts and Sciences to establish the first-year experience course for new undergraduate international students as described above. One component of the course curriculum of U ST 110X included the students completing an initial survey in September and the survey again in December to measure any differences in their responses relating to academic and cultural adaptation to the campus environment and U.S. culture. Although the main thrust of this study was to analyze the results based on the differences in the responses by students enrolled in the first-year experience course versus responses from students not enrolled, looking at the changes in the survey responses for the students in U ST 110X between September and December could provide some interesting information related to learning and adaptation for these students.

This first University Studies 110X course consisted of three lecture sections, with enrollment of 77, 89 and 97 students. These large lecture sections were purposefully held on Monday or Tuesday so that the accompanying small group recitation sections could be held later in the week. A faculty member from the College of Liberal Arts and Science worked in coordination with an ISSO staff to direct the seminar. ISSO staff and teaching assistants, as well as guest faculty and staff lecturers, taught the large lecture sections, covering the cultural, academic, and campus resources topics, such as strategies for academic success, academic dishonesty, U.S. culture, campus resources, immigration regulations, and other topics as they arose. A graduate student teaching assistant worked with each lecture section and its accompanying recitation sections.

To develop the course curriculum, I reviewed the relevant literature and consulted with several ISU faculty and administrators, as well as international student focus groups to determine what they thought should be included. For the current international students, I asked them to think of the most important topics that would have been helpful for them in their first semester at ISU. These focus groups included members of various international student groups, as well as the ISSO Student Advisory Board.

I also consulted with colleagues in the International Student and Scholar Services at the University of Iowa, who had developed a combination extended online orientation seminar for incoming international undergraduate students for the first half of the semester, followed by small group meetings with current students for a mandatory extended first-year experience program (Seedorff, personal communication, April 11, 2014; Bowman, 2015).

Finally, these topics were cross-checked with data from the National Resource Center for The First-Year Experience & Students in Transition's 2009 National Survey of First-Year Seminars, which, with 1019 responses, detailed the most important topics and learning objectives for these seminars as determined by faculty and administrators across the United States. These objectives are included in Table 3.2 below (Greenfield, Kaup, & Gardner, 2013).

Table 3.2

First-year Seminar Objectives from 2009 National Survey of First-Year Seminars

Objectives	Percentage of Respondents
Develop academic skills	54.6%
Develop connections with the institution	50.2%
Provide orientations to campus resources and services	47.6%
Self-exploration and personal development	28.5%
Create common first-year experience	23.3%
Develop support networks/friendships	17.4%
Increase student-faculty interaction	16.9%
Improve sophomore return rates	15.5%
Develop writing skills	11.9%
Introduction to a discipline	7.0%

These topics continued to be revised throughout the summer of 2015. The order in the syllabus also mattered since one of the ideas for this course is that students would receive information and support on topics in their first semester when this information and support is

most helpful to them. After presenting this syllabus to my doctoral committee as part of my capstone review in June 2015, in consultation with the ISSO staff, the syllabus was reworked to move the topics of safety and some of the academic components to sessions earlier in the syllabus.

The final U ST 110X weekly discussion topics for the lecture and recitation sections included the following:

- Campus and Community Safety;
- Student Identify Development;
- Succeeding in the American Classroom;
- Study and Writing Success;
- Culture Shock and Cultural Differences;
- Money Management;
- Interacting with American Culture;
- Racism and Microaggressions in American Culture;
- Immigration Benefits and Employment in the U.S.;
- Healthy Lifestyles;
- Career Development; and
- Ask a Current Student.

Each recitation section was led by a current U.S. and international undergraduate student. The recitation sections were organized for between 10 and 15 new international students each, although some sections had to be combined because of uneven enrollment based on when the sections were scheduled. The recitation leaders would review the topic of the lecture section from earlier in the week with the students, answer any questions and then proceed to a variety of activities related to the topic of the week, concluding with a preview of the following week's topic. These activities could include role plays, panel discussions, trips, and reflection exercises.

Part of the rationale for having current ISU students provide instruction and support to the new international students is supported by research indicating that peer mentors can communicate better with college students than faculty or staff, particularly in terms of explaining social or cultural issues and norms (Greenfield, Keup, & Gardner, 2013; Kenedy, Monty, & Lambert-Drache, 2012; Topping, 2005).

Instruments

In this section the International First-Year Experience survey instrument and the International Student Adjustment survey instrument are described.

International First-Year Experience Survey

Instruments needed to be created for both the international first-year experience course survey that would be submitted to students in the U ST 110X course in September and the International Student Adjustment survey in December for students in the U ST 110X course and students not taking the course. After a thorough review of the literature, I determined that no existing instrument best met the needs of this study. The best combination of relevant questions came from an instrument created by Olena Kovtun in her 2010 dissertation, supplemented by

some questions from the Student Adaptation to College Questionnaire (SACQ) by Baker and Siryk (1989).

Kovtun (2010) focused her work on an analysis of a first-year foundations course for international students at the University of Nebraska-Lincoln. Her instrument assessed students' perceived skills and experiences in 13 areas:

- Understanding of the U.S Education System;
- Use of University Resources;
- Academic Engagement;
- Exposure to Diversity;
- Social Involvement;
- Academic English Skills;
- Psychosocial Development;
- Involvement with American Peers;
- Motivation;
- Academic Adjustment;
- Cultural Adjustment;
- Satisfaction Level, and;
- Perception of English Proficiency.

Several of Kovtun's (2010) categories, including Academic Engagement, Exposure to Diversity, Academic English Skills, and Psychosocial Development were developed from the National Survey of Student Engagement 2008 (n.d.). The Academic Adjustment and Cultural Adjustment categories were adapted from Andrade (2009), and the Motivation category was adapted from the Learning and Student Strategies Inventory (Weinstein, Palmer, & Shulte, 2002). The other categories were developed by Kovtun (2010) herself. In her study, the internal consistency of her instrument varied among the thirteen categories as measured by Cronbach's alpha from .70 to .91, with the alpha measurement for the entire survey as .95.

Kovtun's (2010) survey instrument was then adapted to meet the needs of this study. The first element added to the survey instrument was a unique survey identifier. After reading the consent information and clicking Yes to participate in the study, each participant was asked to provide a unique survey identifier using a combination of his/her birthdate in numbers, plus the first four digits of his/her ISU identification number. The purpose of this unique identifier was to enable a participant's earlier survey results to be paired with the participant's later survey results without specifically knowing the student's name or email address. For example, if the student's birthdate was 29 August, 1995 and her ISU ID was 123456789, that participant's unique identifier would be 2908951234. A complete copy of the survey is provided in Appendix C.

Before starting the survey questions related to adaptation, students were asked to provide demographic information in a variety of categories—Age, Gender, Country of Citizenship, Immigration Status, Major, and ISU College. The adaptation questions and categories generally followed Kovtun's model, with some exceptions as noted below. The first category involved questions about students' knowledge of the U.S. higher education system. This was followed by questions about their use of university resources. Here, four potential resources—the

International Student Office, the Student Counseling Center, the Student Health Center, and the Writing Center were added to those used in the Kovtun survey. One resource, Student Involvement Resources, was deleted since this resource sounded vague, and it was speculated that students would not know exactly what this resource meant.

In the Exposure to Diversity category, which asked students if they had had “serious” conversations with students of other races, ethnicities, religions, sexual orientation, or political opinions, the word “serious” was changed to “meaningful” at the suggestion of a focus group. Two categories were retitled: the Psychosocial Development category became Thinking and Learning Abilities to make it more comprehensible to the participants, and the Perception of English Proficiency category became General English Proficiency.

The Cultural Adjustment category was reworked and expanded. The Cultural Adjustment category was split into Cultural Adjustment: Communication with Americans and Cultural Adjustment: Interacting with American Culture. For this first new category, three more questions were added. The students were asked their level of comfort in interacting with roommates/housemates, how they felt dealing with someone who provided them unsatisfactory service, and their level of comfort with someone who treated them rudely.

The new category of Cultural Adjustment: Interacting with American Culture was created because I wanted a more substantial emphasis on dealing with culture outside of just the local campus culture. The questions for this category were adapted from the Student Adaptation to College Questionnaire (SACQ) by Baker and Siryk (1989) and included:

- I feel comfortable finding my way around campus and the community;
- I feel comfortable eating American food or finding food I like;

- I feel I am able to understand American culture reasonably well;
- I feel comfortable seeing things from an American point of view;
- I am able to deal with the climate in the U.S;
- I feel comfortable dealing with bureaucracy in the U.S; and
- I feel comfortable following U.S. laws and university rules and regulations.

Each of the 89 nondemographic survey questions was set up on a five-point Likert scale, ranging 1 to 5. The scale and point values for the U.S. Higher Education System and Thinking and Learning Abilities categories were “Not at All” (1), “A Little Bit” (2), “Some” (3), “Quite a Bit” (4), and “Very Well” (5) to answer how well the participant understood the various aspects of the U.S. higher educational system and their thinking and learning styles and preferences. For the Use of University Resources, Academic Engagement, Interactions with Diversity, Social Involvement, Involvement with American Peers, and the Personal Motivation categories, the scale related to how often the students used the resources or participated in an activity and was arranged from “Never” (1) “Rarely” (2), “Some of the Time” (3), “Often” (4), and “Very Often” (5).

For the Academic English Proficiency and General English Proficiency categories, the scale and point value ranged from “Poor” (1), “Fair” (2), “Average” (3), “Good” (4), to “Excellent” (5) in answer to the questions of how the students would rate their academic or social English skills or their thinking and learning abilities. For the last four categories, dealing with Academic Adjustment, Cultural Adjustment: Communicating with Americans, Cultural Adjustment: Interacting with American Culture, and Satisfaction, the scale and point range varied from “Strongly Disagree” (1), “Disagree” (2), “Neither Agree nor Disagree” (3), “Agree”

(4), to “Strongly Agree” (5) to answer the questions: “Please state to what extent you agree or disagree with the following statement.”

In completing each question, each participant was providing information as to the extent to which the statement applied in his/her situation, along the five-point scale. As the numbers increased from “1” to “5,” the applicability of the answer changed gradually from “is not applicable to me” to “is less applicable to me” to “may or may not apply to me” or “only applies to me in some cases,” to “applies to me most of the time” to “this answer solidly applies to me.” Thus, although the actual answers varied across the different categories (an answer of “1” could range from “not at all” to “never” to “strongly disagree” to “poor”), as the answers moved from left to right (along a continuum of 1 up to 5), the level of reported student adaptation increased.

After creating the International First-Year Experience survey, I provided it to a focus group of twelve international undergraduate students at Iowa State University, as well as to fifteen international undergraduate international students at another large, public Midwestern university to determine if they found the survey instrument to be asking the right questions, as well as to determine if the questions were understandable to an international student audience. Students from both groups believed the questions were suitable for sampling their initial intercultural experience to U.S. university life and would not present problems for international students in terms of readability.

Reliability testing using Cronbach’s alpha.

With the data from the students in the U ST 110X course who completed the International First-Year Experience survey in September, I was able to conduct a reliability analysis to measure the survey’s internal consistency using Cronbach’s alpha. Cronbach’s alpha

is often used to provide an estimate of a survey's internal reliability based on the correlations among the survey items (Urdan, 2010).

More specifically, I measured the internal consistency of thirteen of the fourteen non-demographic components of the international first-year experience survey using Cronbach's alpha. The category General English Proficiency was excluded from this analysis since there were only two questions for this category (a minimum of three is needed). The Cronbach's alpha for each of these thirteen categories ranged from .81 to .92, and the internal consistency value for the entire survey was .95. A Cronbach's alpha score of above .70 or higher is considered necessary for sufficient internal reliability (Schmitt, 1996).

Since the survey looked primarily at academic and cultural adaptation, when combining these categories for an Academic Adjustment Scale (U.S. Educational System, Use of University Resources, Academic Engagement, Academic English Proficiency, Thinking and Learning Abilities, Personal Motivation, and Academic Adjustment), the Cronbach's alpha level was .95. For the Cultural Adjustment Scale, which included Interactions with Diversity, Social Involvement, Involvement with American Peers, Cultural Adjustment: Communicating with Americans, and Cultural Adjustment: Interacting with American Culture, the Cronbach's alpha score was .94.

The component of Satisfaction was not covered in the other two scales and focused on the level of satisfaction the participant had being a student in college as well as satisfaction with the particular institution. The Satisfaction Scale internal consistency score was .93. Full details of these statistics are included in Table 4.1 in Chapter Four, along with the Cronbach's alpha scores for the December version of the survey.

International Student Adjustment Survey

After the September responses to the International First-Year Experience survey were analyzed, some changes were made to the final instrument, designated as the International Student Adjustment survey, which was administered in December 2015 and January 2016 to the treatment and control groups. The first change made was to add a question to help differentiate between the students in the treatment and control groups. Participants were asked if they were enrolled in the U ST 110X First-Year Experience Course. Next, to avoid the potential complication of requiring parental consent for any students under the age of 18, a question Consent Age was added for a student to indicate whether s/he was over the age of 18 or not.

If the student taking the survey clicked the button indicating No (meaning under age 18), the survey was programmed to terminate at that point. This was to ensure that no one under the age of 18 would take the survey. For the Gender question, an option of “prefer not to answer” was added to the options of “female” and “male.” For the question Age, the decision was made to just use a text box to allow the respondents to enter their precise age, rather than using the different age ranges as provided in the initial version of the survey.

Under the Use of University Resources category, the entry “International Student Office” was changed to “International Students and Scholars Office” to correspond to the actual name of the international office at Iowa State University. For the entry “Residence Hall Resources” an example of “Talk to CAs (Community Assistants) or Hall Director, etc.” was added to help students understand how this entry could apply to them.

For the Academic Engagement category, a clarification was added to the entry “Met with your instructor or teaching assistant” to include “outside of class.” Also a question from the Social Involvement category “Attend academic lectures outside of class” was moved to the

Academic Engagement category because I believed the academic emphasis of the question was more important than its social interaction component.

For the category Interactions with Diversity, a question was added to ask if students had had a “meaningful conversation with students from a country that was not their own country or not the U.S.” This question was added to determine if students were branching out beyond their home country cohorts. In the category Social Involvement, a question was added to find out if students had joined a campus club or organization since this element of social life was not adequately covered in the previous questions.

Several categories were renamed to more accurately describe the latent concepts their questions were describing and to make the concepts within the academic or cultural groupings more linguistically consistent. For the academic categories, Academic Adaptation was renamed to Academic Success. The category U.S. Educational System added the word “higher” to become U.S. Higher Educational System since the category focuses more on U.S. higher education.

Although the category Thinking and Learning Abilities did not result in a name change, the rating scale was changed from a range of “Not at All” to “Very Much” to a range of “Poor” to “Excellent.” This was done because it was felt that questions relating to skills and abilities should be assessing the students’ understanding of their level of competency in those skills/abilities, rather than a raw score of how much of that skill or ability they possessed.

Every category of the Cultural Adjustment Scale involved name changes: Cultural Adjustment: Communicating with Americans became Communicating with U.S. Culture. Cultural Adjustment: Interacting with American Culture was changed to U.S. Culture

Engagement. Interacting with Diversity became Diversity Engagement. The categories Social Involvement and Involvement with American Peers were renamed to Social Engagement and U.S. Peer Engagement. Finally, the category General English Proficiency was renamed Cultural English Proficiency, and the questions were expanded beyond just asking the level of English skills for academic work and for social interaction to four questions focused on the participant's writing, reading, listening, and speaking skills in English.

Data Collection

Information on data collection is first provided for the International First-Year Experience survey and then for the International Student Adaptation survey.

International First-Year Experience Survey

The International First-Year Experience survey, which consisted of 93 items, was made available to the students in the U ST 110X course in mid-September, three weeks into the semester. It was constructed using the online survey software program Qualtrics through the ISU website. Although the survey was included as part of the curriculum of the U ST 110X course and therefore could be completed without the need for approval from the ISU Office for Responsible Research, each survey contained an informed consent page, and the rationale and details of the survey were explained to the students in the course by the course instructor.

Students were given access to the survey via an internet-based application that allowed the U ST 110X instructor to place class materials specific to U ST 110X online. A total of 156 students completed the survey (for a completion percentage of 59% of the 264 students enrolled in the course), although after removing survey results that contained missing items, only 128 completed surveys remained. Once the survey was closed, names of two students from the

course who declared that they had taken the survey were drawn at random for two \$25 ISU Bookstore gift cards.

International Student Adaptation Survey

The data collection process for the International Student Adaptation survey was started once I had obtained approval for the study from the Iowa State University Office for Responsible Research in November 2015. A copy of the approval from the Office of Responsible Research is included in Appendix A. This survey was made available to participants in December 2015 during the last two weeks of class.

For students in the U ST 110X course, the course instructor provided instruction on completing the survey and answered any questions concerning the survey in the large lecture sections, including reading the script I prepared to serve as a verbal consent form. Recitation leaders followed up in the recitation sections to encourage students to take the survey. Links to the survey were provided in the students' U ST 110X internet-based course material account.

For students not in the U ST 110X course, the contact method was via email addresses that I obtained from ISU's Office of the Registrar. I had asked the Office of the Registrar to provide the email addresses of undergraduate international students enrolled in a degree program who had started their enrollment at Iowa State in Fall 2015 but were not enrolled in the U ST 110X course for Fall 2015. The definition of international student in this instance was an undergraduate degree student who did not have a U.S. citizen or permanent residence citizenship code in the ISU enrollment database. I received a list of 197 first-year international undergraduate students. Once I obtained these email addresses, I sent emails to these students inviting them to participate in the survey.

In addition to the emails I sent out, I obtained permission from the International Students and Scholars Office to have them provide an introduction to the survey to these students and send out online link to the survey. This email included the email script that I had provided as part of my human subjects application to the Office of Responsible Research. Once this survey was closed, names of two students from the course who declared that they had taken the survey were drawn at random for two \$25 ISU Bookstore gift cards, and the emails of two students not in the course were also picked at random to receive two \$25 ISU Bookstore gift cards.

Data Analysis

International First-Year Experience Survey

The survey had been created online through an internet-based survey-creation program called Qualtrics. The data from the 156 responses to the September International First-Year Experience survey and the 127 responses from the December survey of the U ST 110X students were collected and exported from Qualtrics into an Excel spreadsheet. Column headings were reworded to correspond with the survey categories (Academic English, etc.), rather than using “Question 12, 13, 14,” etc., as Qualtrics provided. Qualtrics had already coded the answers from the entry questions to the appropriate level of 1-5 to correspond to the categories of “Never,” “Rarely,” “Sometimes,” “Often,” and “Very Often, along with the other ranges of responses.

The next step was to ensure that the dataset only included records from participants who had taken both the September survey as well as the December survey. Utilizing the unique survey identifiers, which were a combination of the students’ birthdates and the first four digits of the student identification numbers, of the 156 responses from September and the 127 responses from December, a match was found for 94 students who participated and completed both surveys. Once the matches were made, the unique survey identifiers were removed from

the dataset, and no further identifying markers for these students were included in the dataset. The responses for these students were only included under the variable of “FYECourse,” labeled as “1” to represent responses from the September survey and “2” for responses from the December survey.

The decision was made to use listwise deletion to delete any record from these matched pairs of records that had any missing Likert-scale data elements. According to Young, Wechman, and Holland (2011), although this process discards data, using mean substitution or some other type of data substitution can alter the meaning of the responses. Once the listwise deletion was completed, the data set consisted of 79 paired records. These records were then exported into a statistical software package for further analysis.

Reliability testing using Cronbach’s alpha.

To ensure that the survey was internally consistent, I conducted a reliability analysis using Cronbach’s alpha to determine how well the questions from each of the 14 categories related to the other questions in the category. An analysis was also conducted on the Academic, Cultural, and Satisfaction scales using the categories that comprised those scales. Finally, the three scales were combined to obtain an alpha score for the entire survey. The alpha scores for the categories ranged from .78 to .92 and from .79 to .82 for the Academic Adaptation and Cultural Adaptation scales and .86 for the entire survey. Table 4.1 in Chapter Four provides this information in detail.

T-test analysis.

To answer research question 1, which focused on whether participation in the international first-year experience course led to gains in academic and cultural adaptation for the students enrolled in the course, I used a statistical software package to conduct a repeated

measures t-test analysis to compare the means of 13 of the 14 categories of the survey. The Cultural English Proficiency was not analyzed because the questions for this category were changed substantially from the September to the December versions of the survey and were not compatible for analysis.

Before conducting the t-test analyses, it was necessary to perform a power analysis to determine if the proposed sample size of 79 respondents provided enough power through the t-test (at least .80 or higher) to lower the likelihood of a Type II error. Several factors, including whether the test is one- or two-tailed, the effect size, an alpha level, and number of variables analyzed are included in determining the actual power of the t-test and the resulting sample size. Since an alpha level was one of the factors in determining the test's power and sample size, if the power analysis resulted in a recommended sample size that was larger than 79 or an actual power number that was too low, the alpha level would then need to be adjusted. The results of the power analysis will be discussed in detail in Chapter Four. Following the power analysis, the descriptive statistics, such as the means and standard deviations for each category and scale were obtained, and the t-test analyses were conducted.

To create the mean for each of the 13 adaptation and satisfaction categories, the scores for the questions that comprised each of the categories from each student respondent were combined. For example, each of the scores from the six questions for the Academic Engagement category (making a class presentation, meeting with an academic advisor, meeting with a professor/teaching assistant outside of class, working with classmates in class, working with classmates on projects outside of class, and attending academic lectures outside of class) were combined.

These scores were then split into new variables by the September and December responses. For instance, all the responses from each student respondent for the Academic Engagement questions were combined to create an Academic Engagement score. The 158 Academic Engagement category scores (labeled as the variable AcadEngage) were then split into two sets of 79 Academic Engagement September and 79 Academic Engagement December scores, labeled as the variables AcadEngageS and AcadEngageD, (with “S” for September responses and “D” for December responses). This same process was followed for the rest of the adjustment categories to create September and December Academic Adjustment and Cultural Adjustment scales which could then be compared, along with the Satisfaction Scale, via paired t-test analysis.

Effect size analysis.

Finally, an effect size analysis was conducted for each of the categories and scales. An effect size calculation was needed because even though a *p* value calculation can provide information about an effect via statistical significance, the *p* value calculation does not specify the size of any effect. The effect size can provide information about whether statistical significance has practical significance. The effect size determination for this study used Cohen’s *d* to measure effect sizes. Cohen generally determined that an effect size of .20 was small, .50 as moderate, and .80 as large (Sawilowsky, 2009). The effect sizes for the statistically significant categories of the International Student Adaptation survey ranged from .47 to 1.04 and are presented in detail in Chapter Four.

International Student Adjustment Survey

The International Student Adjustment survey was used to answer the second research question, which asked what changes had occurred for the students enrolled in the international

first-year experience course in terms of international student adaptation. To help in answering this question, first, two multiple regression analyses utilizing the survey were conducted to predict if the student activities, behaviors, values, and beliefs, which correlated with greater satisfaction and higher adaptation, were in line with research on international student adaptation. Then t-test analyses were conducted to analyze differences in academic and cultural adaptation between the control and treatment groups.

Reliability analysis using Cronbach's alpha.

Since there were some changes between the International First-Year Experience survey and the International Student Adaptation survey in terms of added questions and an additional set of respondents in the students not enrolled in the international first-year experience course, a reliability analysis using Cronbach's alpha analysis was conducted on the International Student Adjustment survey data. For each of the 14 categories, the alpha measurements ranged from .78 to .92. The scores for the Academic Adaptation, Cultural Adaptation, and the Satisfaction scales were .82 for all three scales. The alpha score for the entire survey (a combination of all three scales) was .86. The results are discussed in more detail in Chapter Four.

Multiple regression analyses with control and treatment sample.

A multiple regression was chosen as an appropriate tool for analysis because multiple regressions can be used for either describing the relationships between independent variables and a dependent variable or predicting a response variable based on the characteristics of the predictor variables (Aberson, 2010). For this study, two multiple regressions were used to explain the relationships between predictor (independent) variables and a response (dependent) variable.

To fully have confidence in a multiple regression analysis, that regression must satisfy four key assumptions. The first is that a linear relationship exists between the dependent and independent variables. The second assumption is that variables are normally distributed. The third assumption is that no multicollinearity exists between the independent variables, meaning that these variables are not highly correlated with each other. Finally, the assumption of homoscedasticity points to the importance of the error term's variance not moving upward or downward between the independent variables (Osborne & Waters, 2002). The two assumptions that were tested prior to completing the regression analyses for this study were those of multicollinearity and homoscedasticity.

To test for multicollinearity one may use a correlation matrix. The correlations could be either positive or negative, and no correlation should have an absolute value of greater than .80. The correlation matrix constructed for this study tested for multicollinearity among the 17 independent variables used with the regression models. All correlations were below .60, the strongest correlation being .596. These correlations are included below in tables 3.3 through 3.5 below.

Table 3.3

Correlation Matrix for Independent Variables Predicting Satisfaction (Variables 1-6)

Variables	FYE Course	Age	Gender	East Asia	Academic Engagement	Academic English Proficiency
IFYE Course	1.00					
Gender	-0.11	1.00				
Age	-0.17	0.10	1.00			

Table 3.3 continued

East Asia	-0.10	-0.02	0.01	1.00		
Academic Engagement	-0.09	-0.04	-0.05	-0.04	1.00	
Academic English Proficiency	-0.13	0.02	0.06	0.01	0.02	1.00
Academic Success	-0.13	0.06	-0.06	-0.02	0.05	-0.13
Personal Motivation	0.05	-0.14	0.20	-0.01	0.08	-0.56
Thinking and Learning Abilities	-0.18	0.06	0.08	-0.10	-0.10	-0.08
U.S. Educational System	0.23	0.01	-0.11	-0.04	-0.01	-0.12
Use of University Resources	-0.19	0.10	0.12	0.05	-0.38	0.26
Communicating with U.S. Culture	-0.03	0.07	0.14	0.13	-0.12	-0.04
Cultural English Proficiency	0.15	-0.05	-0.11	0.08	-0.01	-0.60
Diversity Engagement	-0.16	0.02	0.09	0.10	-0.35	-0.03
Social Engagement	0.15	-0.09	-0.16	-0.11	0.04	-0.32
U.S. Cultural Engagement	-0.16	0.09	0.07	0.02	0.02	0.10
U.S. Peer Engagement	0.07	-0.04	0.16	-0.04	0.02	0.08
_cons	0.07	-0.47	-0.45	-0.17	-0.01	-0.14

Table 3.4

Correlation Matrix for Independent Variables Predicting Satisfaction (Variables 7-12)

Variables	Academic Success	Personal Motivation	Think & Learning Abilities	Use of University Resources	Communicating with U.S. Culture	Cultural English Proficiency
Academic Success	1.00					
Personal Motivation	-0.56	1.00				
Thinking and Learning Abilities	0.02	-0.24	1.00			
U.S. Educational System	0.06	-0.04	-0.10	1.00		
Use of University Resources	-0.01	-0.14	0.09	-0.16	1.00	
Communicating with U.S. Culture	-0.49	0.17	0.01	-0.15	0.12	1.00
Cultural English Proficiency	0.05	-0.13	-0.24	-0.01	-0.05	-0.01
Diversity Engagement	-0.10	-0.06	-0.10	-0.26	0.10	0.08
Social Engagement	0.15	0.04	-0.12	0.19	-0.57	-0.08
U.S. Cultural Engagement	-0.07	-0.05	-0.08	-0.05	0.07	-0.44
U.S. Peer Engagement	-0.07	-0.12	-0.09	-0.09	0.01	-0.07
_cons	0.01	0.01	0.01	-0.05	-0.20	-0.17

Table 3.5

Correlation Matrix for Independent Variables Predicting Satisfaction (Variables 13-17)

Variables	Cultural English Proficiency	Diversity Engagement	Social Engagement	U.S. Cultural Engagement	U.S. Peer Engagement	_cons
Academic Success						
Personal Motivation						
Thinking and Learning Abilities						
U.S. Educational System						
Use of University Resources						
Communicating with U.S. Culture						
Cultural English Proficiency	1.00					
Diversity Engagement	0.06	1.00				
Social Engagement	0.11	-0.38	1.00			
U.S. Cultural Engagement	-0.06	-0.01	-0.11	1.00		
U.S. Peer Engagement	-0.19	0.12	-0.22	-0.06	1.00	
_cons	0.03	-0.01	0.17	-0.34	-0.06	1.00

Another strategy to test for multicollinearity is a variance inflation factor analysis (VIF). Although six of the independent variables had a VIF score of over 3.0, none of the scores was higher than 4.0, which would have pointed to the presence of multicollinearity. The mean VIF score was 2.54. The details of the variance inflation factor analysis are provided below in table 3.6.

Table 3.6

Variance Inflation Factor Analysis of Independent Variables Predicting Satisfaction

Variable	VIF	1/VIF
IFYE Course	1.39	0.72
Gender	1.17	0.85
Age	1.08	0.93
East Asia	1.15	0.87
Academic Engagement	2.39	0.42
Academic English Proficiency	3.28	0.31
Academic Success	3.96	0.25
Personal Motivation	3.27	0.31
Thinking and Learning Abilities	2.86	0.35
U.S. Educational System	1.69	0.59
Use of University Resources	2.82	0.35
Communicating with U.S. Culture	3.54	0.28
Cultural English Proficiency	3.39	0.30
Diversity Engagement	2.89	0.36
Social Engagement	3.56	0.28
U.S. Cultural Engagement	2.64	0.38
U.S. Peer Engagement	1.80	0.56
Mean VIF	2.52	

The other thorny assumption is that of homoscedasticity. If homoscedasticity is present, the error terms of the variables will tend to increase or decrease uniformly as the variables change. This can lead to an upward bias in the regression model's standard errors. Unreliable standard errors can affect the analyses' resulting t-tests and significant values. To deal with the issue of homoscedasticity, two strategies were implemented.

Since evidence of homoscedasticity is fairly easy to see when a scatterplot is employed, such a scatterplot was created of the regression composed of the residuals from the independent variables regressed against the predicted value of the dependent variable. As is visible in Figure

5 below, the residual plots on the graph do include some outliers which do not follow any discernible pattern. But more important, in looking at the majority of the plots, they do tend to move upward between 3.0 and 4.0 but then tend to move downward instead of continuing to move upward, which would have been an indication of homoscedasticity.

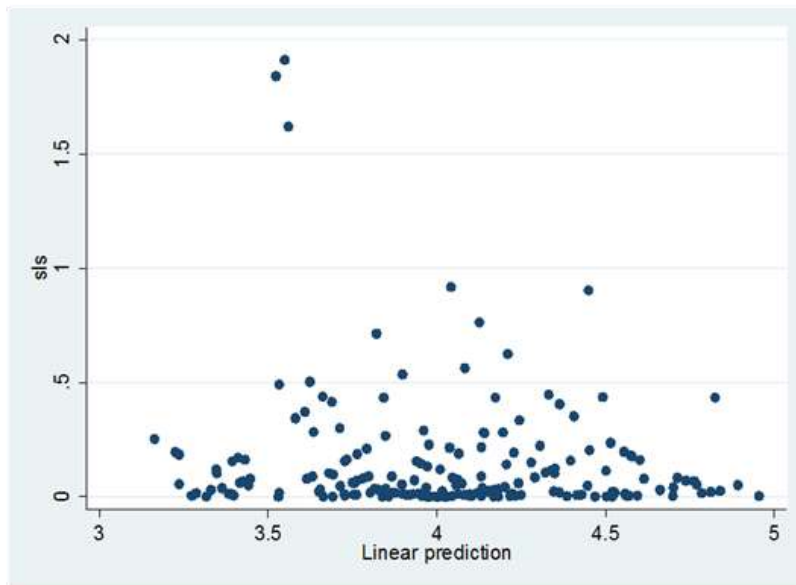


Figure 5. *Scatterplot of Independent Variable Residuals Predicting the Dependent Variable*

The other strategy used to test for homoscedasticity was to conduct the White test, which determines whether a multiple regression model's included error term variances are constant. This determination is made by analyzing the regression analysis results and determine if the Prob $> F$ value is significant. If this value is not significant, homoscedasticity is probably not an issue for that regression model. After conducting the White test for the regression's independent variables for this study, the Prob $> F$ value was 0.299 and thus not significant. Therefore, without significance, it was determined that homoscedasticity was most likely not present for this model.

In preparation for the regression analyses, the survey data from the two groups, composed of 126 responses from the U ST 110X students and 103 responses from the control group were collected and exported into an Excel spreadsheet. Data cleanup was done by recoding column headings to more practical titles and deleting records with missing data. The survey software had already coded the responses from the survey questions to correspond to the appropriate 1-5 levels. As with the International First-Year Experience survey data analysis, listwise deletion was used to delete records with missing data elements. With this data cleanup completed, a total of 115 records of U ST 110X students and 92 students not enrolled in the first-year experience course remained and were then exported into the statistical package for further analysis.

The questions in the survey about various aspects, characteristics, behaviors, or activities relating to international student adaptation were created to be in line with the literature on U.S. student adaptation to U.S. universities as discussed in Chapter Two. They also were framed by the definition of adaptation from Hannigan (1990) given in Chapter One which emphasized how a person's thinking, attitudes, behavior, and psychological make up could undergo changes as a result of new cultural interactions. The purpose of the regression analyses was to determine which of these possible components would prove significant in terms of supporting international student adaptation for this sample. The student adaptation literature describes how involvement and engagement in campus, co-curricular, and community activities, active participation in the classroom and interaction with professors, as well as tapping into campus resources all contributed to students being successful (Astin, 1991; Bean & Eaton, 2000; Pascarella, & Terenzini, 2005).

Soria and Leuck's (2016) study of high-impact educational practices found that the following high-impact practices are highly correlated with significantly higher academic engagement or academic skill development for undergraduate international students: first-year seminars, learning communities, common book reading programs, service-learning or community service, formal creative activities or scholarship, or courses with themes of diversity. Activities such as these can help contribute to enhancing international students' adaptation to their new campus environment (Zhao, Kuh, & Carini, 2005; Kuh, 2008; Soria & Leuck, 2016). These would also be high-impact activities that would correspond to the "living experiences" aspect of the Environment section of Astin's Input-Environment-Output model.

Further, the literature about international student adaptation emphasized the importance of adequate English language skills, the importance of making friends with host country students, establish connections with professors and fellow students if possible, and feeling comfortable in their environment (Abe, Talbot, & Geelhoed, 1998; Chen, 2006; Glass, Wongtrirat, & Buus, 2015). Therefore, two multiple regressions were used to analyze the categories of the Academic Adaptation and Cultural Adaptation scales as to whether the research on international student adaptation in a U.S. context seemed to apply for this sample of students and thus to a greater student population based on the survey responses.

No survey question directly asked students some version of the question: "To what extent do you feel you have adapted to the academic program and cultural life of this university?" Instead two questions from the survey were used as proxies for levels of academic or cultural adaptation as self-assessed by the survey participants at the end of the Fall 2015 semester. These were questions 2 and 3 from the Satisfaction category, designated as the dependent variables Satisfaction2 and Satisfaction3. Question two "I am satisfied with the quality of my education at

the university” was used to represent general academic adaptation, while question 3 “I am satisfied with my life at the university” was used to represent cultural adaptation. The independent variables regressed in the analysis against each of these two dependent variables (in two different regressions) included both student demographic characteristic variables and the seven academic and six cultural adaptation categories.

The demographic variables used in the regression included dichotomous variables for participation in the international first-year experience course and for gender and an ordinal variable for age. Although the participants had entered their actual ages in the survey, that number was recoded using an age range of 1 = 18 – 22; 2 = 23 – 26; 3 = 27 – 30; and 4 = over age 30 for use in the statistical software. However, with no students in the control or treatment groups over the age of 30, the only coding responses included were 1, 2, or 3.

As was done with the repeated measures t-tests answering the first research question, a power analysis was conducted for the sample that would be used for the multiple regression analyses to determine which alpha level to use, if the sample size of 207 provided enough actual power to reduce the likelihood of Type II errors, and if the number of variables had to be adjusted. The results of this power analysis is provided in more detail in Chapter Four.

As a part of the regression analysis, descriptive statistics such as the means, standard deviations, r squared and adjusted r squared were calculated. Chapter Four describes the results of these multiple regression analyses.

T-test analysis with control and treatment sample.

Once the multiple regression analyses were completed, an independent t-test analysis could be conducted. However, as with the repeated measures t-test and multiple regression

analyses described above, the same caveats concerning the risk of Type II errors applied to the independent measures t-test analysis. Therefore a power analysis was completed for the independent t-test sample to determine its best combination of actual power, sufficient sample size, and number of variables to minimize Type II errors. These results will be explained in Chapter Four.

As was described for preparing the data for the International First-Year Experience survey t-test analysis, the individual responses for each of the International Student Adjustment survey questions were combined and then divided to create control and treatment group category variables. For example, the scores for the questions that comprised the Academic Engagement category were combined to create the AcadEngage variable, then divided into 92 scores for the AcadEngageC (“C” for control group) and 115 scores for the AcadEngageT (“T” for treatment group) variables. Then, the seven remaining academic adjustment categories and the six cultural adjustment categories were combined to create the Control and Treatment Academic Adjustment and Cultural Adjustment scales which, along with the Satisfaction Scale, were ready for the t-test analysis. The results of these analyses are described in more detail in Chapter Four.

Effect size analysis.

To have a better understanding of the practical significance of the t-test analysis results, an effect size analysis was conducted for each of the categories and scales that showed statistical significance, since a *p* value score is limited to describing statistical significance and not the size of any effect. A calculation using Cohen’s *d* to measure effect sizes was used. The effect sizes for the statistically significant categories of the International Student Adaptation survey ranged from .42 to .67, indicating a moderately sized effect.

CHAPTER 4. RESULTS

This chapter summarizes the results from the data collected and analyzed from first-semester undergraduate international students at Iowa State University during Fall 2015 utilizing a repeated measures t-test analysis for students in the international first-year experience course and then by an independent t-test and multiple regression analyses of the International Student Adjustment survey of students enrolled and not enrolled in the international first-year experience course. The chapter begins with a restatement of the research questions then moves into a detailed analysis of the findings from the International First-Year Experience and the International Student Adjustment surveys.

Research Questions

This quantitative study was undertaken to examine the effectiveness of an international first-year experience course as a strategy by university administrators and faculty to enhance the academic and cross-cultural adaptation of first-year undergraduate international students at Iowa State University by assessing their academic and cultural scores on two versions of an international student adaptation survey.

The study research questions include:

1. Did participation in the international first-year experience course lead to gains in academic and cultural adaptation for the international students enrolled in the international first-year experience course?
2. What were the changes in terms of international student adaptation for the students enrolled in the international first-year experience course?

This chapter describes the results from analyses conducted on two data points from the same survey: (1) 79 September 2015 and December 2015 paired responses to the International First-Year Experience survey from enrollees in the the Fall 2015 international first-year experience course; and (2) 115 December 2015 responses from the International First-Year Experience survey, along with 92 December 2015 and January 2016 responses to the same survey by first-year undergraduate international students who were eligible to enroll in the international first-year experience course but chose not to enroll.

International First-Year Experience Survey

The goal of the international first-year experience course at Iowa State University was to provide information and support to new undergraduate international students to assist in their academic and crosscultural adjustment to ISU and U.S. culture. The goal of the September and December survey for students enrolled in the course was to answer the first research question, which focused on the impact the course had on the students' academic and cultural adaptation to the their new environment.

Reliability Testing Using Cronbach's Alpha

Chapter Three provided information about the initial reliability of the September version of the International First-Year Experience survey. Since a number of questions were changed or added from the September to the December version of the survey, another reliability assessment was conducted using Cronbach's Alpha. The analysis utilized the combined responses of the September and December survey of the 13 categories comprising the Academic Adjustment Scale and the Cultural Adjustment Scale, along with the one category that comprised the Satisfaction Scale, the three scales, and a combined alpha score for the entire survey.

The alpha scores for the categories ranged from .78 to .92, from .79 to .82 for the scales and .86 for the entire survey, with an alpha score of .70 usually needed to show reasonable internal consistency (Schmitt, 1996). Although its alpha scores are slightly lower than the September version of the survey, with all alpha scores above .70, the survey with its December responses is considered internally consistent. Table 4.1 below provides the alpha scores for the September and December versions of the survey in detail:

Table 4.1

Cronbach's Alpha Calculations for the September and December International First-Year Experience Survey

Categories/Scales	<u>September</u>	<u>December</u>
	Cronbach's α Percentage	
Academic Adjustment Scale	.95	.79
Academic Engagement	.81	.85
Academic English Proficiency	.93	.92
Academic Success	.91	.92
Personal Motivation	.84	.86
Thinking and Learning Abilities	.91	.90
U.S. Higher Education System	.93	.93
Use of University Resources	.89	.90
Cultural Adjustment Scale	.94	.80
Communicating with U.S. Culture	.92	.90
Cultural English Proficiency	NA	.88
Diversity Engagement	.88	.88
Social Engagement	.89	.83

Table 4.1 continued

U.S. Culture Engagement	.89	.88
U.S. Peer Engagement	.91	.78
Satisfaction Scale	.93	.82
Entire Survey	.95	.86

To diminish the likelihood of a Type II error and to determine if the sample size of 79 was sufficient for the repeated measures t-test, a power analysis was conducted. The power analysis could also affect the alpha level and number of variables used for this analysis. The actual power derived from a test of statistical analysis is generally defined as the strength of the probability that the test rejects a false null hypothesis (Aberson, 2010). After manipulating the input variables to include the alpha level, effect size, and number of variables, the power analysis calculations were completed to provide for a sufficiently large sample size of 79 to negate the likelihood of a Type II error.

This combination included a two-tailed alpha, an effect size of .50, an alpha level of .01, a set of 15 variables, and an estimated power value ($1 - \beta$) of .95. These parameters provided the resulting set of outputs to include a noncentrality parameter δ of 4.44, a critical t value of 2.64, and an actual power value of .96. With this actual power, the sample size of 79 is deemed sufficient to avoid the likelihood of Type II errors. This information is included in table 4.9 toward the end of the chapter.

Paired T-test Survey Analysis

Unlike the International Student Adjustment survey, which compares students enrolled in the international first-year experience course to students not enrolled in the course, the

International First-Year Experience survey focused on a group of the same 79 students in the U ST 110X course who completed both the September and December versions of the survey.

The goal of the t-test analysis was to decide whether there were significant changes in the responses for the U ST 110X students between the September and December surveys.

Therefore, a repeated measures design and a paired t-test analysis was used. In general, t-tests are used to determine if two groups of subjects differ significantly in some way and if that difference is a result of random chance (Urdan, 2010). In this part of the study, the group is the same but their responses are separated by time, and it is these two sets of responses that are analyzed.

The paired t-test analysis was conducted on 13 of the 14 categories of the International First-Year Experience survey (not including the Cultural English Proficiency category as explained below). Along with the demographic questions, the survey was divided into three scales: seven categories comprising the Academic Adjustment scale (Academic Engagement, Academic English Proficiency, Academic Success, Personal Motivation, Thinking and Learning Abilities, U.S. Higher Educational System, and Use of University Resources); five categories comprising the Cultural Adjustment scale (Communicating with U.S. Culture, Cultural English Proficiency, Diversity Engagement, Social Engagement, U.S. Cultural Engagement, and U.S. Peer Engagement); and the one category that comprises the Satisfaction scale (Satisfaction).

The results of the t-test analyses indicated that ten of the thirteen adaptation categories, plus the satisfaction category were significant. In detail, the mean differences for four of the six academic adjustment categories were significant, along with the Academic Adaptation Scale: Academic Engagement ($p < .001$), Academic Success ($p = .005$), Personal Motivation ($p = .002$), U.S. Higher Education System ($p = .002$), and Use of University Resources ($p = .001$), plus the

Academic Adjustment Scale ($p < .001$). The two categories that were not statistically significant were Academic English Proficiency ($p = .041$) and Thinking and Learning Abilities ($p = .013$).

For the cultural adaptation categories, each of the five categories and the Cultural Adaptation Scale were significant and all at the $p < .001$ level. Finally, the Satisfaction category/scale was significant as well ($p = .004$). These results seem to support a conclusion that either considerable learning took place in the U ST 110X course, which could have contributed to the students academic and cultural adaptation and adjustment, or that the gains in student adaptation contributed to student learning.

Effect Size Analysis

To better understand the significance of the t-test analysis results, an effect size analysis was conducted for each of the statistically significant categories and scales. Calculating an effect size is important since a significant p value does not specify the size of any effect. The effect size can provide information about the practical significance of a statistically significant effect. This study used Cohen's d to measure effect sizes, with the generally accepted guidelines of an effect size of .20 being considered small, .50 as moderate, and .80 as large (Sawilowsky, 2009). The effect sizes for the categories and scales are included in Table 4.2 below. In addition to the effect sizes, Table 4.2 below also details information about the t-test analyses of the categories from the Academic Adjustment, Cultural Adjustment, and Satisfaction scales of the survey, including sample sizes, means, standard deviations, adjusted means, and p values:

Table 4.2

T-Test September and December Results from International First-Year Experience Survey

Variable	Sample	<i>M</i>	<i>SD</i>	<i>p</i>	<i>d</i>
Academic Adjustment Scale	September	3.31	0.41	<.001**	0.78
	December	3.70	0.57		
Academic Engagement	September	2.85	0.78	<.001**	0.82
	December	3.50	0.80		
Academic English Proficiency	September	2.93	0.57	.041	
	December	3.14	0.70		
Academic Success	September	3.79	0.56	.005*	0.46
	December	4.08	0.68		
Personal Motivation	September	3.57	0.60	.002*	0.50
	December	3.91	0.72		
Thinking and Learning Abilities	September	3.63	0.64	.013	
	December	3.92	0.79		
US Higher Educational System	September	3.89	0.81	.002*	0.50
	December	4.30	0.84		
Use of University Resources	September	2.53	0.78	.001*	0.54
	December	3.03	1.06		
Cultural Adjustment Scale	September	3.28	0.48	<.001**	0.96
	December	3.80	0.61		
Communicating with U.S. Culture	September	3.70	0.59	<.001**	0.59
	December	4.08	0.70		
Diversity Engagement	September	3.03	0.80	<.001**	1.04
	December	3.87	0.81		
Social Engagement	September	2.56	0.88	<.001**	0.53
	December	3.06	1.04		

Table 4.2 continued

U.S. Culture Engagement	September	3.72	0.52	<.001**	0.68
	December	4.17	0.60		
U.S. Peer Engagement	September	2.93	1.01	<.001**	0.68
	December	3.63	1.10		
Satisfaction/Satisfaction Scale	September	3.84	0.61	.004*	0.47
	December	4.14	0.65		

Note. $N = 79$ for September and December samples. * = $p < .01$, ** = $p < .001$.

International Student Adjustment Survey

Having used a t-test to analyze data from the International First-Year Experience survey to determine how much the experiences of students in the international first-year experience course had changed their perceptions and affected their adaptation to their new culture, the emphasis now shifted to the International Student Adjustment survey to compare the perceptions of the students in the U ST 110X course (as a treatment group) against students who had not experienced the course (as a control group) as those perceptions related to student adaptation.

The first analysis with the International Student Adaptation survey employs two multiple regression analyses to attempt to discover connections between actions, attitudes, beliefs, and skills that, based on the literature review, tend to promote international student adaptation in general and how that literature applies to the participants of this study. Some of the elements in the literature that helped promote student adaptation include greater involvement in campus life and culture, enhanced interaction with fellow students in class, making U.S. friends, and strong English skills.

The second analysis utilizing the survey uses an independent samples t-test to query this same data sample for significant differences in survey responses between the two group of students in terms of the adaptation and satisfaction categories. In the end, the question to answer from these quantitative analyses is whether they tend to show if participation in an international first-year experience course can prove to be a significant factor in assisting with international student adaptation.

For this study, these two multiple regression analyses were utilized because multiple regressions are an appropriate tool to predict a response variable based on the characteristics of more than one predictor variables or to describe the relationships between independent variables and a dependent variable (Aberson, 2010). Here, the regressions are used to explain the relationships between a series of independent variables and two dependent variables. An independent t-test is typically used to measure the level to which responses from two groups of subjects differ and if that level of difference is statistically significant and is the result of random chance (Urdan, 2010). As has been explained above, the independent t-test analysis for this study is being used with two differing groups of students to determined how they differ in terms of perceptions of student adaptation criteria.

Reliability Analysis Using Cronbach's Alpha

As has been detailed in Chapter Three, the International Student Adaptation survey is somewhat different from the International First-Year Experience survey. It has some altered questions, added questions, and an expanded set of response data. Therefore, conducting a reliability analysis using Cronbach's alpha to ensure sufficient internal consistency of the survey is merited. The reliability analysis results indicate that each of the adaptation categories and the satisfaction category had at least a .70 alpha score, the minimally accepted score for sufficient

internal consistency (Schmitt, 1996). The lowest score was the U.S. Peer Engagement category at .78. The highest alpha scores were for the Academic English Proficiency and the Academic Success categories, both at .92. The Academic Adaptation and Cultural Adaptation Scales also had moderately high scores, both with alpha scores of .82. And combining the three scales resulted in a total survey score of .86. These results are provided below in Table 4.3

Table 4.3

Cronbach's Alpha Calculations for International Student Adjustment Survey

Categories/Scales	Cronbach's α Percentage
Academic Adjustment Scale	.82
Academic Engagement	.83
Academic English Proficiency	.92
Academic Success	.92
Personal Motivation	.84
Thinking and Learning Abilities	.81
U.S. Higher Education System	.85
Use of University Resources	.90
Cultural Adjustment Scale	.82
Communicating with U.S. Culture	.90
Cultural English Proficiency	.88
Diversity Engagement	.88
Social Engagement	.83
U.S. Culture Engagement	.88
U.S. Peer Engagement	.78

Table 4.3 continued

Satisfaction Scale	.82
Entire Survey	.86

Multiple Regression Analyses with Control and Treatment Sample

The International Student Adaptation survey included questions focused on academic adjustment, cultural adjustment and satisfaction. Through the interaction of demographic question and adaptation category variables, the regression analyses concentrates on what aspects, characteristics, beliefs, skills or experiences either did or did not contribute to the students' levels of adaptation.

However, since none of the survey questions was formulated to precisely ask students their level of adaptation to the academic or cultural life of the university, two survey questions represented these latent concepts. These two satisfaction scale questions from the survey were used as proxies for levels of academic or cultural adaptation as self-assessed by the survey participants at the end of the Fall 2015 semester—Satisfaction questions 2 and 3, which asked the level to which students were satisfied with either the quality of their education or their life at the university.

The independent variables included the seven academic adaptation and the six cultural adaptation categories, as well as enrollment in the international first-year experience course, age, gender, and region of the world, as represented by whether the student was from East Asia (nearly 50% of the student sample). These are represented below in Table 4.4. A descriptive analysis was conducted on the International Student Adaptation demographic variables divided by participation in the international first-year experience course and is described in detail in Table 4.5 below.

Table 4.4

Multiple Regression Dependent and Independent Variables from International Student Adjustment Survey

Variable Type	Variable	Description
Dependent Variables	<i>Satisfaction2</i>	Ordinal variable coded 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree or Disagree, 4 = Agree, and 5 = Strongly Agree. Measures level of satisfaction with the quality of his/her education at the university as of the end of the student's first semester.
	<i>Satisfaction3</i>	Ordinal variable coded 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree or Disagree, 4 = Agree, and 5 = Strongly Agree. Measures level of satisfaction with the student's life at the university as of the end of the student's first semester.
Independent Variables	<i>IFYE Course</i>	Dichotomous variable coded 1 = international first-year experience course enrollment and 0 = no enrollment in the course
	<i>Gender</i>	Dichotomous variable of gender. Measured as female = 1 and male = 0
	<i>Age</i>	Ordinal variable of age coded 1 = 18 – 22, 2 = 23 – 26, and 3 = 27 – 30.
	<i>East Asia</i>	Dichotomous variable coded 1 = student from East Asia and 0 = student not from East Asia.

Table 4.5

Multiple Regression Descriptive Statistics for Demographic Variables from the International Student Adjustment Survey

Variable	<u>International First-Year Experience Course</u>					
	Y	%	N	%	Total	%
IFYE Course: Enrolled	115	55.56	92	44.44	207	100.00
Female	51	24.64	30	14.50	81	39.13
Male	64	30.92	62	29.95	126	60.87
Total	115	55.56	92	44.45	207	100.00
Age 1 (18-22)	106	51.21	87	42.03	193	93.24
Age 2 (23-26)	7	3.38	5	2.42	12	5.80
Age 3 (27-30)	2	0.01	0	0.00	2	0.96
Total	115	55.56	92	44.45	207	100.00
East Asia	52	25.12	32	15.46	84	40.58
Rest of the World	63	30.43	60	28.99	123	59.42
Total	115	55.56	92	44.44	207	100.00

In conducting the multiple regression analysis, it was assumed that satisfaction with university education would be predicted by variables supporting engagement in academic activities such as active participation in classrooms, interacting with professors, and utilizing campus resources. Further, satisfaction with university life was assumed to be correlated with variables supporting active involvement in campus and community activities such as engagement with U.S. peers, active attempts at improving English skills, and a willingness to explore aspects of U.S. cultural diversity.

Before discussing the results of the two multiple regression analyses, it is necessary to discuss the results of the power analysis conducted relative to the International Student Adjustment sample and the multiple regressions. Specifically this power analysis was conducted to ensure that the sample size of 207 was sufficiently large and that the analysis had sufficient power, which would provide confidence that the results of the analyses were not suspected of Type II errors. As was the case with the power analysis for the repeated measures t-test discussed above, the power analysis could also affect a number of variables, such as the alpha level, number of variables, sample size, and effect size used for the analysis. After adding these input parameters into the power analysis, the results indicated that the sample size of 207 was sufficiently large to minimize worries of Type II error. It was also determined that an alpha level of .05 was appropriate based on this power analysis.

The full set of input parameters included a two-tailed alpha, .50 effect size, alpha level of .05, 17 variables, an estimated power value ($1 - \beta$) of .95. The resulting output parameters included: a noncentrality parameter δ of 3.67, a critical t value of 1.99, and an actual power value of .95. This information is include with the other power analyses in table 4.9.

As another of the input variables into the power analysis, which would influence the sample size and the regressions power, it was decided to limit the number of independent variables used in the both the multiple regression analyses to 17. This meant not taking advantage of all the demographic variables available in the survey. Therefore, no variables representing the data from students' majors or colleges would be included in the analyses. Similarly, only one variable representing world regions would be included.

Earlier, the variables of students' countries of citizenship had been recoded into world regions, with numbers 1-7 representing the world regions of Africa, East Asia, Europe, Middle East, North America, South America, and Southeast Asia based on that country's location. The region Oceania was not included since there were no students from that part of the world. But once the descriptive statistics were run and it was evident that nearly one-half of the student sample (49.27%) was from East Asia, the decision was made to create East Asia a dichotomous variable with "1" representing students from East Asia and "0" for students not from East Asia and analyze the results with that variable.

Two additional sets of survey responses not used as independent variables were Major and Immigration Status. With 57 majors represented in the responses, the decision had first been made to use the variable "College" to represent students' academic direction. These variables included the students' six undergraduate colleges at Iowa State: Agriculture & Life Science, Business, Design, Engineering, Human Sciences, and Liberal Arts and Sciences. But after further consideration, it was decided that the variable "College" did not represent one of the most crucial variable to include as independent variables in the multiple regression analyses—at the cost of power or the use of other independent variables. The variable Immigration Status was

also not used because 99.03% of the respondents had F-1 status. Thus, since there was virtually no variability in question responses, that variable was not included in the regression analyses.

Following is a more detailed discussion of the results in terms of statistical significance for the satisfaction with university education and satisfaction with university life regression analyses in terms of specific predictor variables. Table 4.6 below also provides the coefficients, standard errors, p , R^2 , adjusted R^2 , and sample sizes for the predictor variables for the satisfaction with university education and satisfaction with university life regression analyses.

Satisfaction with university education regression analysis.

The analysis indicated that the model did account for almost 42% of the variance for satisfaction with university education. The results include the following indicators: $R^2=.464$, $R^2_{adj}=.416$, $F = (17, 189)$, $F = 9.63$, $p < .001$, and was significant as a model of student adjustment. In terms of demographic variables, none of them was significant. Particularly of interest, participation in the international first-year experience course did not prove to be significant ($p = .421$).

Of the Academic Adaptation variables, only the Academic Success category was significant at $p = .015$. These questions focus on having a positive academic attitude, interacting with professors and students, working to understand the academic culture, knowing how to get help, and engaging the culture by attending class regularly. The questions for this category include:

- I consider myself to be a successful student;
- I understand professors' expectations;

- I understand what constitutes appropriate classroom behavior in the U. S.;
- I understand U. S. classroom culture;
- I know who to ask for help at the university;
- I feel comfortable contacting professors for help;
- I have attended classes regularly;
- I have confidence in my ability to succeed; and
- I understand what I need to do to achieve my goals.

For the Cultural Adaptation categories, only U.S. Cultural Engagement was significant ($p = <.001$). The questions in this category look at how comfortable students are in engaging with U.S. culture. The questions include:

- I feel comfortable finding my way around campus and the community;
- I feel comfortable eating U.S. food or finding food I like;
- I feel I am able to understand U.S. culture reasonably well;
- I feel comfortable seeing things from a U.S. point of view;
- I am able to deal with the climate in the U.S.;
- I feel comfortable dealing with bureaucracy in the U.S.; and
- I feel comfortable following U.S. laws and university rules and regulations.

Therefore, it seems that the elements that could be most helpful from the various survey categories in promoting international student academic adaptation focus on maintaining positive attitudes and working to understand the culture both in and outside the classroom, and through interacting with people, strong interaction (emphasized through other categories) is not the most important element. These concepts are certainly supported in the research literature, which do promote actively engaging with the new culture and being positive (Astin, 1991; Bean & Eaton, 2000; Pascarella, & Terenzini, 2005; Soria & Leuck 2016). Table 4.6 below provides detailed information about this multiple regression analysis.

Table 4.6

Multiple Regression Analysis Predicting Satisfaction with University Education from International Student Adjustment Survey

Variable	<u>Unstandardized</u> <u>Coefficients</u>		<u>Standardized</u> <u>Coefficients</u>	<i>p</i>
	β	<i>SE</i> (β)	Beta	
International First Year Experience Course	-0.075	0.093	-0.051	.421
Gender	-0.084	0.087	-0.056	.336
Age	-0.023	0.135	-0.010	.862
East Asia	0.020	0.085	0.014	.811
Academic Adaptation				
Academic Engagement	-0.029	0.068	-0.035	.673
Academic English Proficiency	-0.090	0.085	-0.010	.916
Academic Success	0.289	0.118	0.260	.015*
Personal Motivation	-0.080	0.103	-0.070	.437
Thinking and Learning Abilities	-0.032	0.084	-0.034	.702
U.S. Educational System	-0.017	0.061	-0.020	.981
Use of University Resources	-0.002	0.065	-0.002	.774

Table 4.6 continued

Cultural Adaptation				
Communicating with U.S. Culture	-0.123	0.119	-0.104	.303
Cultural English Proficiency	0.073	0.086	0.083	.399
Diversity Engagement	-0.027	0.075	-0.033	.713
Social Engagement	0.160	0.085	0.188	.063
U.S. Cultural Engagement	0.665	0.112	0.513	<.001***
U.S. Peer Engagement	0.049	0.061	0.058	.420
R^2				.464
ΔR^2				.416

Note. * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Satisfaction with university life regression analysis.

Results of the second regression analysis indicated that the model accounted for approximately 47% of the variance predicting satisfaction with university life, a slightly higher rate than for satisfaction with university education. The resulting values include $R^2 = .512$, $R^2_{adj} = .468$, $F(17, 189) = 11.67$, $p < .001$. None of the demographic variables, including participation in the international first-year experience course variable ($p = .730$), were significant.

For the Academic Adaptation categories, again, only the Academic Success category was significant, with $p = .008$. For the categories from the Cultural Adaptation scale, only U.S. Culture Engagement was significant ($p < .001$). To some extent, the two categories mirror each other. The Academic Success category questions are similar to the U.S. Culture Engagement questions, which focus on having a positive attitude and getting out and experiencing the culture. The Academic Success questions deal with having a positive academic attitude, interacting with professors and students, working to understand the academic culture, knowing how to get help, and engaging the culture by attending class regularly.

In summary, the multiple regression analyses for these two satisfaction questions seem to point to having positive attitudes about the new culture, being willing to explore it on one's own and interact with others, as well as taking chances—all contributing to satisfaction with the college experience and by extension, international student adaptation. These results also tend to support Astin's (1993) I-E-O model, which emphasizes interacting with one's environment to achieve the outputs, as well as having the culture influence the person directly through interaction with their personal characteristics.

As an interesting note, some seemingly strong contributors based on the research, such as an emphasis on language skills or a stronger emphasis on friendships or academic engagement were not significant contributors to satisfaction with the academic program or cultural life (neither the Academic English Proficiency, Cultural English Proficiency, or Academic Engagement categories were statistically significant). Table 4.7 below explains this multiple regression analysis in more detail:

Table 4.7

Multiple Regression Analysis Predicting Satisfaction with University Life from International Student Adjustment Survey

Variable	<u>Unstandardized Coefficients</u>		<u>Standardized Coefficients</u>	<i>p</i>
	β	<i>SE</i> (β)	Beta	
International First Year Experience Course	-0.030	0.086	-0.021	.730
Gender	0.011	0.080	0.008	.888
Age	0.156	0.125	0.066	.215
East Asia	-0.034	0.079	-0.023	.672
Academic Adaptation				
Academic Engagement	-0.068	0.063	-0.084	.283
Academic English Proficiency	0.033	0.079	-0.038	.678
Academic Success	0.292	0.110	0.270	.008**
Personal Motivation	0.099	0.096	0.095	.302

Table 4.7 continued

Thinking and Learning Abilities	-0.136	0.078	-0.149	.085
U.S. Educational System	0.016	0.056	0.019	.771
Use of University Resources	0.007	0.060	0.010	.902
Cultural Adaptation				
Communicating with U.S. Culture	0.028	0.111	0.024	.799
Cultural English Proficiency	0.032	0.080	0.037	.691
Diversity Engagement	0.096	0.069	0.119	.169
Social Engagement	0.009	0.079	0.011	.906
U.S. Cultural Engagement	0.506	0.104	0.401	<.001**
U.S. Peer Engagement	0.097	0.057	0.117	.088
R^2				.512
ΔR^2				.468

Note. * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

T-test Analysis with Control and Treatment Sample

A power analysis was conducted to determine the parameters necessary for conducting the independent measures t-test, such as the alpha level, effect size, number of variables, and sample size. The results of the power analysis indicated that the sample size of 207 was sufficient, along with an alpha level of .05, and 16 variables to provide sufficient power (.95) to reduce the likelihood of Type II errors. These results are detailed in table 4.9 below.

An independent t-test analysis was conducted on each of the 14 categories of the International Student Adjustment survey, the same categories (this time including the Cultural English Proficiency category) as for the International First-Year Experience survey, including the three scales: the seven categories comprising the Academic Adjustment scale (Academic Engagement, Academic English Proficiency, Academic Success, Personal Motivation, Thinking and Learning Abilities, U.S. Higher Educational System, and Use of University Resources); the six categories comprising the Cultural Adjustment scale (Communicating with U.S. Culture,

Cultural English Proficiency, Diversity Engagement, Social Engagement, U.S. Cultural Engagement, and U.S. Peer Engagement); and the one category that comprised the Satisfaction scale (Satisfaction). As a part of this analysis, the descriptive statistics, including means and standard deviations for each category and scale, were included.

For the Academic Adaptation Scale, four categories were statistically significant: Academic Engagement, Personal Motivation, Thinking and Learning Abilities, and Use of University Resources. The p levels for these categories were $<.001$, $.049$, $<.001$, and $<.001$ and had varying effect sizes of $d = .67$; $d = .29$, $d = .50$; and $d = .62$ respectively. Three Cultural Adaptation Scale categories were significant as well with moderate effect sizes: Diversity Engagement ($p = <.001$, $d = .67$), Social Engagement ($p = <.001$, $d = .52$), and U.S. Cultural Engagement ($p = <.001$, $d = .42$). For the scales, the Academic Adaptation and Cultural Adaptation Scales were significant ($p = <.001$, $p = <.001$) and had moderate effect sizes ($d = .54$ and $d = .53$), but the Satisfaction Scale was not significant.

Effect size analysis.

In looking at the six statistically significant categories described in the paragraph above, all six categories had moderate effect sizes. These include categories of Academic Engagement ($d = .67$), Thinking and Learning Abilities ($d = .50$) Use of University Resources ($d = .62$), Diversity Engagement ($d = .67$), Social Engagement ($d = .52$), U.S. Cultural Engagement ($d = .42$), and Personal Motivation ($d = .29$). Both the Academic Adaptation and Cultural Adaptation Scales were significant ($p = <.001$, $p = <.001$) and had moderate effect sizes ($d = .54$ and $d = .53$).

Table 4.8 provides details concerning the analyses of these categories and scales, to include sample sizes, means, standard deviations, adjusted means, p values for statistical significance, and Cohen's d for effect sizes for the control and treatment groups.

Table 4.8

T-Test Control and Treatment Group Results from the International Student Adjustment Survey

Variable	Sample	M	SD	p	d
Academic Adjustment Scale	Control	3.47	0.52	<.001**	0.54
	Treatment	3.77	0.57		
Academic Engagement	Control	3.03	0.88	<.001**	0.67
	Treatment	3.56	0.74		
Academic English Proficiency	Control	3.70	0.79	.157	
	Treatment	3.87	0.86		
Academic Success	Control	3.89	0.64	.083	
	Treatment	4.06	0.67		
Personal Motivation	Control	3.69	0.55	.049*	.29
	Treatment	3.88	0.77		
Thinking and Learning Abilities	Control	3.50	0.80	<.001**	0.50
	Treatment	3.88	0.72		
US Higher Educational System	Control	4.07	0.86	.921	
	Treatment	4.06	0.82		
Use of University Resources	Control	2.56	0.96	<.001**	0.62
	Treatment	3.16	1.00		
Cultural Adjustment Scale	Control	3.42	0.61	<.001**	0.53
	Treatment	3.68	0.65		
Communicating with U.S. Culture	Control	3.47	0.56	.196	
	Treatment	3.57	0.54		

Table 4.8 continued

Cultural English Proficiency	Control	3.78	0.73	.948	
	Treatment	3.79	0.92		
Diversity Engagement	Control	3.64	1.05	<.001**	0.67
	Treatment	4.31	0.93		
Social Involvement	Control	2.87	0.95	<.001**	0.52
	Treatment	3.31			
U.S. Culture Engagement	Control	3.85	0.59	<.001**	0.42
	Treatment	4.08	0.53		
U.S. Peer Engagement	Control	3.75	0.80	.885	
	Treatment	3.77	0.91		
Satisfaction/Satisfaction Scale	Control	3.94	0.48	.077	
	Treatment	4.07	0.58		

Note. $N = 92$ for Control group, 115 for Treatment group. $* = p < .05$, $** = p < .01$, $*** = p < .001$.

Table 4.9

Power Analysis for Repeated and Independent Measures T-Test and Multiple Regression Analyses

Variable	Repeated T-Test	Independent T-Test	Multiple Regression
Input Parameters			
Tails	2	2	2
Effect Size	0.50	0.50	0.15
Alpha	0.01	0.05	0.05
Power (1- β error probability)	0.95	0.95	0.95
Number of predictors	15	16	17

Table 4.9 continued

Output Parameters			
Noncentrality Parameter	4.44	3.57	3.67
Critical t	2.64	1.97	1.99
Df	78	205	72
Total Sample Size	79	207	90
Actual Power	0.96	0.94	0.95

Chapter Five provides for a further discussion of the results presented in this chapter, delve into some of the conclusions and implications of the results, and conclude with limitations, recommendations for practice, and a recommendations for future research sections.

CHAPTER 5. DISCUSSION

Introduction

The purpose of this study was to determine if a first-year experience course specifically for undergraduate international students had a significant impact on the academic and cultural adaptation to university life, as well as U.S. culture, of the students enrolled in the course. The practical application of the results of this study is to determine if a first-year experience course for undergraduate international students is a worthwhile strategy for U.S. universities for promoting learning and student adaptation. The first-year experience course developed for new international undergraduate students at Iowa State University was implemented with the goal of providing the most important and timely information concerning campus and community resources, assistance in interacting with faculty and U.S. students, and enhancing opportunities for student engagement and success.

Quantitative methods—a repeated measures samples t-tests, an independent measures t-tests, and two multiple regressions—were used to analyze two surveys using almost the same set of questions. The analysis covered academic adaptation, cultural adaptation, and satisfaction of first-year undergraduate international students in Fall 2015 at Iowa State University. The following sections of this chapter will provide a discussion of the results of these quantitative assessments, conclusions, implications, limitations, and describe recommendations for practice and recommendations for future research.

Discussion

This section will discuss results in terms of the study's two research questions. The first research question focused on whether participation in the international first-year experience course resulted in enhanced academic and cultural adaptation for the international

students enrolled over the course of the Fall 2015 semester. The second research question focused on what were the changes in terms of international student adaptation for the students enrolled in the international first-year experience course.

Research Question 1

The significant results of the t-test analyses from the International First-Year Experience survey are represented by the five statistically significant academic adaptation, five cultural adaptation, and one satisfaction category that contributed to the students' learning and adaptation. The overarching concepts for these categories are coalesced into four themes: (1) academic connection, (2) academic exploration, (3) cultural connection, and (4) cultural empathy.

Academic connection.

This theme centered on the importance of interactions and communication in an academic setting. In line with Astin's (1991), Bean and Eaton's (2000), and Pascarella and Terenzini's (2005) emphasis on engagement with the student academic culture, the results of the study indicated that by the end of the semester, the students participating in the first-year experience course had significantly more interactions and engagement with their instructors and fellow students in and outside of class, were engaging in group work, making presentations, and meeting with instructors, teaching assistants, and academic advisors.

These are interactions that most new international students, particularly undergraduates, can find intimidating. Although traditionally international students take their academic work more seriously than U.S. students (Bastien, 2011; Zhao, Kuh, & Carini, 2005), having to interact in an education system that often requires active participation and doing so in another language is not something that new international students are often ready to do.

By providing both a lecture and recitation section, the first-year experience course both used a format that the international students were familiar with, but also a new format that actively required more interaction. The lectures provided timely and useful information in a format comfortable for most of the international students. In contrast, the recitation sections were small groups of 10 – 15 international students with two current student leaders, a U.S. and an international student. These sections required reflection papers, extensive question and answer sessions, field trips, activities, and in general were very much student- rather than instructor-centered.

Students were required to create a group project at the end of the course. The project could be a poster, photo collage, video, or computer-based slide show. Although the students were working only with other international students, this requirement did support cultural communication since the students had to communicate in English.

The ability for students to learn how to work in groups in a U.S. higher education context is an important skill for new international students to have. U.S. students are generally more familiar with group work and negotiating individual roles within a group than are students from many countries (Atebe, 2011; Fletcher, 2013; Tartar, 2005; McLean & Ransom, 2005). The related concept of brainstorming, which often is key to group project success, is another concept often not familiar to some international students. This is because, unlike in the U.S., where students are more prone to throwing out incomplete ideas to start or continue the brainstorming process, international students from more collectivist cultures (the majority of the ISU international student population) are more likely to listen, reflect, and only after having their ideas more fully formed, explain their thoughts. Also, new students who are not confident of their English speaking skills can often be more reticent to speak up until they have rehearsed

their thoughts and translated them into English in their head (Fletcher, 2013; Atebe, 2011; McLean & Ransom, 2005).

Academic exploration.

This theme resulted from the significance for students of exploring how to study and resist temptation better, work more successfully with other students and professors, and become more accustomed to the participatory nature of a U.S. university classroom. Additionally, if international students felt they needed assistance, they could reach out to professors, teaching assistants, academic advisors, or other student support units on campus.

The International First-Year Experience survey results showed that by the end of the course, the new international students were engaging in actions, behaviors, and attitudes that promoted academic success at a significantly higher level than at the beginning of the course. These actions, attitudes, and behaviors included a better understanding of appropriate classroom behavior and culture, what the instructors expected of them, and having a good idea of what is required to be a successful student. Having students in the first-year experience course spend time hearing about these issues and being forced to think, write, and talk about them would probably be good for all new students—domestic and international.

But in this instance, having this course organized with only international students did not force them to compete with U.S. students in a first-year course where the reality would most likely be that the U.S. students would dominate the discussions and would be less likely to want to mix with the international students for group work. The lecture section included a discussion on interacting with professors and classmates, as well as academic misconduct and writing skills. The recitation sections were built around drawing out the international student gradually and allowing them to become more accustomed to a more participatory engagement style of learning.

Also, a part of this theme is an emphasis on the actual studying, educational goal setting, staying motivated, study skills, and time management. In general, international students come from families and educational systems that stress academic rigor and seriousness. However, this cultural background can also emphasize rote learning and a collectivist cultural orientation that does not promote talking in class or standing out from the crowd by asking questions of a professor. The issue of studying and attending class in a foreign language has been mentioned already but again is relevant. Finally, these students are subject to the same temptations that U.S. first-year students can face of being now on their own, without parents around to force them to study, finish that research paper, go to bed, or not go out partying when they have a test the next day. So having instructors and current students reinforcing good habits and proper motivation can be quite helpful.

An important element to helping new international students be successful is having them understand how this new educational system they are now in works. This is important because the U.S. higher education system is different in some key areas from many other higher educational systems in the world. For instance, in some higher education systems, students begin taking their undergraduate major courses from their first semester, may receive their instruction from a small group of tutors, and stay with the same cohort of students throughout their studies.

Thus, the U.S. system of higher education, with its emphasis on general education requirements, credit hours, and electives may be foreign to many international students. Although the participants in the U ST 110X course had had an introduction to how academic programs work in U.S. universities through their mandatory international student orientation just before the Fall 2015 semester started, talking about this subject again after the students had been

exposed to it through their classes for a few weeks laid the foundation for a more comprehensive understanding.

One of the major issues that can contribute to an international undergraduate student not being successful academically or adjusting to their new surroundings is not taking advantage of the numerous academic and student support services that are generally available on U.S. campuses. In most of these cases, students rely on their country peers for answers and support and do not tap into the wealth of resources available to them. For the student enrollees, the first-year experience course helped educate them about useful student support resources and how to use them. This resulted in the students making significantly more use of these resources by the end of the course.

Cultural connection.

Some of the strongest differences in the paired responses for the international first-year experience course participants were in the area of communicating and interacting with others, and more specifically with U.S. students. This is evident from the significance of the Communicating with U.S. Culture, Diversity Engagement, Social Engagement, and U.S Peer Engagement categories. The significance and moderate to strong effect sizes of these categories indicated that the course participants learned about the issue of cultural communication through the course and felt they had made progress in this area.

The Communicating with U.S. Culture category emphasized how comfortable international students were in interacting with people from the U.S in a variety of situations—from students in class, to roommates, to service providers in the community, to people of differing races, religions, or sexual orientations. With their responses showing a significant increase in their level of comfort with these situations, this theme emphasized situations where

students over the course of their semester had begun to actively move beyond their safety nets of being by themselves or only interacting with a small group of country peers.

Current literature on international students consistently describes new international students as believing that they will have U.S. friends when they come to U.S. universities (McLean & Ransom, 2005; Fletcher, 2013; Larmer, 2017). However, once they arrive, they come to understand that communicating with U.S. students is more difficult than they had thought (Atebe, 2011; Kovtun, 2010). The root of this difficulty is usually either a student's inadequate English proficiency or lack of confidence in English proficiency. The curriculum of the international first-year experience course was designed to help combat this issue. Students were taught about culture shock, how to interact with U.S. culture, and were given the task of interviewing a U.S. student. They were encouraged to speak in class and begin reaching out to connect with U.S. students. They also had opportunities to learn from their current student recitation leaders—one international and one U.S. student—about making friends with U.S. students.

Survey results also indicated that in addition to students feeling more comfortable just being around different types of U.S. people in terms of race, religion, and sexual orientation, over the course of the semester they had actually begun to interact with students of differing diversity backgrounds and had made efforts to learn about U.S. diversity issues. Through the international first-year experience course, students learned about U.S. diversity issues, racism, and microaggressions in the U.S., and were encouraged to seek out opportunities to talk to people different from themselves. The student responses indicated that the students had significantly higher interactions with people different from them by the end of the course. This category had the highest effect size of all categories in either survey at 1.04.

Another element of cultural connection is how much students were engaged in the social life of the university—attending social, religious, political, or other types of events, volunteering for or helping to plan an event, or joining a student organization. Course instructors and recitation leaders explained the role of student organizations on campus, their benefits, and had some student organization leaders talk about their organizations. Students were even required to attend an academic lecture and social event during the semester. Student responses indicated a significantly higher level of participation in student activities by the end of the course. This emphasis in the course curriculum to have students involved in student life reflects the existing literature that illustrates the importance of student engagement in campus life and how that supports persistence and student success (Kuh, 2008; Soria & Lueck, 2016; Zhao, Kuh, & Carini, 2005).

The last component of cultural connection relates to international students making contact with U.S. students and taking that contact to the next level by actually having more than just a quick conversation. As has already been described previously, taking tangible steps to strike up conversations with U.S. students can be difficult for new international students. Then actually persevering and establishing relationships with Americans can be a solid step outside one's own comfort zone. According to the responses from the students, the curricular efforts of the course to support this engagement seemed to have been successful since students indicated that they were significantly more engaged with U.S. students by the time they completed U ST 110X.

The four significant categories comprising this theme to some extent represent a continuum of engagement. The Communicating with U.S. Culture category concentrates on becoming comfortable engaging with U.S. students and others. The Diversity Engagement

category emphasizes taking the initiative to speak to others different from the individual international student. The Social Engagement category looks at interacting with more than one person at a time, with groups, and even becoming involved in a group. Finally, the U.S. Peer Engagement category emphasizes more purposeful interactions with U.S. students, such as meals and visits.

Cultural empathy.

Although communicating with people is vitally important in learning about and adjusting to a new culture, engaging with a new culture is more than just having purposeful interaction with people. In the context of this study, cultural empathy relates more to the international student attempting to learn about the new culture through thinking, reflecting, and observing—and ultimately being able to reach Oberg's (1960) Adjustment or Acceptance stage or to utilize Berry's (1977) Integration or Assimilation strategies. In terms of cultural empathy, students do engage with people, but these interactions are more casual and transitory and serve more to provide learning opportunities about the new culture.

This cultural empathy perspective is represented by the U.S. Culture Engagement category, which attempted to document student perceptions relating to comfort levels with new foods, new climate, new laws, practices, and bureaucratic procedures—all potential major adjustments for a new cultural sojourner. Also included were how well students thought they understood U.S. culture and could view the world from a U.S. perspective.

The international first-year experience course provided opportunities to help students learn and explore. In the ninth week of the course, students were given a lesson on U.S. values, norms, and how to interact with Americans. The fifth week included a lecture on U.S. higher education. In recitation sections, students were asked to write about their interactions with

people in the community and discuss how those interactions were both positive and negative. There were lectures on safety, managing money, getting a job in the U.S., and the health care system—all in a U.S. context. These learning opportunities helped students explore their new culture. The survey results showed that students were significantly more comfortable dealing with cultural ambiguities and more willing to explore and reflect on what they were learning.

Research Question 2

The second research question asked about what changes may have occurred in terms of international student adaptation for the students enrolled in the international first-year experience course, serving as the treatment group, versus the new international undergraduates not enrolled in the course, who served as the control group.

The themes that resulted from the t-test analyses of the International Student Adjustment survey are almost the same as those resulting from the International First-Year Experience survey: (1) academic connection, (2) personal exploration, (3) cultural connection, and (4) cultural empathy. But before exploring these themes, there is a discussion of the results from the multiple regression analyses.

Adaptation grounded in the literature.

Before conducting the independent measures the t-test analyses of the International Student Adjustment survey, the two multiple regression analyses were completed to determine which of the 13 adaptation categories or demographic variables would best predict adaptation based on the differing elements from the literature that contribute to international student adaptation. The results could then be compared with which categories would be significant for the t-test analyses.

The dependent variables used in the regressions to represent academic and cultural adaptation were two satisfaction category questions asking about satisfaction with university education and university life. The demographic variables of participation in the international first-year experience course, gender, age, and world region of origin were the independent variables, along with the 13 adaptation categories. None of the demographic variables was significant for either regression. The significant categories for predicting satisfaction with university life were Academic Success and U.S. Culture Engagement. These were the same two categories that were significant for satisfaction with university education as well.

The U.S. Culture Engagement category, with its emphasis on personal interactions with the new culture, was significant in the t-test analyses for both the International First-Year Experience survey and the International Student Adaptation survey. In contrast, the Academic Success category, which is to some extent quite similar to the U.S. Culture Engagement category but in an academic setting, was not significant for the International Student Adjustment survey (though relatively close at $p=.083$), though it was significant for the International First-Year Experience survey. One conclusion is that even though the first-year experience course provided a substantial learning environment for students in terms of how to be successful students, the control group students apparently acquired roughly comparable knowledge through other means.

One reasonable question is why were only two adjustment categories significant for both of the multiple regression analyses? Each of the 13 categories represented some concept or combination of concepts that can be important contributors to international student adaptation based on current literature. They varied from engaging with people in academic or cultural settings, to learning about cultural differences (especially among people), to enhanced English proficiency, to motivations and actions to succeed and achieve goals, to understanding how the

culture works, and how and where to obtain resources and help. None of the demographic variables of gender, age, or world region was significant. But neither was participation in the first-year experience course significant.

One potential answer for why more variables were not significant is that the time frame for the study was too short. This point is discussed in more detail in the Conclusions section below. The key point is that existing literature (Kovtun, 2010, Andrade, 2009; Clark, 2005) and models of adaptation, acculturation, and cultural transition, including Berry's (1997) Acculturation model, Oberg's (1960) Culture Shock model, as well as Astin's (1993) I-E-O model indicate that adaptation is not an overnight process. The Fall 2015 semester was roughly 3.5 months. Expecting students mostly age 18 to 22 (93.24% of the sample) to fully or considerably adjust to a new culture in that length of time is probably not realistic (Guinane, 2004, Kovtun, 2010).

An assessment of the results from the two surveys seem to show that the international first-year experience course did help the enrolled students learn considerably about ISU and U.S. culture. In terms of the U.S. Cultural Engagement category, perhaps actual adaptation or at least a strong beginning of adaptation did take place. But for the other categories, even those that were significant for either of the two surveys, any significant differences either over time or between control and treatment groups, are probably just the beginning of adaptation for these students.

Another potential answer is how the students answered the survey questions. This study is not built predominantly around defined facts or data (except for the demographic data of student characteristics, such as age, gender, major, college, or immigration status), but based

mostly on student perceptions of their attitudes and levels of engagement, comfort, proficiency, or skills. For the students enrolled in the international first-year experience course, completing both the September and December versions of the survey were course requirements. But no instructor or recitation leader checked to see if the students completed the survey, how long they took to complete the survey, or how seriously the students felt about the survey or the assignment. It is also possible that students may not have had a realistic understanding of themselves. They may have rated themselves higher or lower on a survey than a more realistic assessment of their abilities, behaviors, and attitudes might have shown.

Academic connection.

Through the t-test analyses of the International First-Year Experience survey, the significance of the Academic Engagement category indicated that the U ST 110X students over the course of the semester had learned the importance of active student participation in their classes and in their academic program in general. The International Student Adjustment survey results showed that the student participants in the first-year experience course understood that they needed to be actively engaged with their fellow students and professors to be successful. Their responses exhibited a significantly higher level of commitment to active academic connection and involvement in their classes than the control group students.

Personal exploration.

This theme focused on personal goals, learning styles, developing critical thinking skills, and identifying career goals. The international first-year experience course curriculum contained units on student development theory, learning styles, goal setting, and career exploration. The reflection activities in the recitation sections continued to challenge the students to think about these issues over the course of the semester, as well as work on critical thinking.

The value of new international students learning more about critical thinking cannot be overstated. Critical thinking is not generally stressed in the educational systems of many countries and is often a struggle for new international students (Aydinol, 2013; Fletcher, 2013; Durkin, 2008; McLean and Ransom). Since critical thinking and reading critically are core concepts in Western academic culture and higher education, faculty in U.S. undergraduate courses do not tend to provide much guidance on reading or thinking critically (Borland & Pearce, 1999; McLean & Ransom, 2005). International students from non-Western countries generally look to their instructors for the key points of relevance in course lessons and material and are not expected to discover these concepts themselves (Tartar, 2005; McLean & Ransom, 2005).

As was described in the Academic Exploration theme above, learning about campus resources and helping to persuade students to use them is important to their success and adaptation. Some of the recitation section activities included having students visit or have tours of certain support services offices or resources (Academic Success Center, University Library, Student Health Center, or the Writing Center). Guest speakers from some of these and other support offices spoke to students during the course. The International Student Adaptation survey results showed that in addition to the U ST 110X students becoming more accustomed to making use of campus resources over the course of the Fall 2015 semester, they did so at a significantly higher rate than did their peers not enrolled in the course.

Cultural connection.

The cultural connection theme for the International Student Adaptation survey is based on the significance of the Diversity Engagement and Social Engagement categories. Similar to Cultural Connection theme based on the International First-Year Experience survey results

discussed above, these categories from the International Student Adaptation survey still emphasize interacting with others, though this time with a greater stress on diversity and group interaction than more individual interaction as exhibited with Communicating with U.S. Culture and U.S. Peer Engagement. Based on the survey assessment, the participants in the international first-year experience course were more comfortable interacting with others outside their country group (though technically they could have scored their answers on the Social Engagement questions to reflect high social activity only with their country peer group) and with others not like them. As mentioned above, the international first-year experience course lectures and recitation section discussions and activities stressing diversity and involvement in campus life seemed to have had an effect.

Cultural empathy.

The U.S. Culture Engagement category was once again significant and points to a key difference between the treatment and control groups in their ability to move and their ease in moving beyond their comfort zone in working to see the world from another cultural perspective based on what they learned from the international first-year experience course. While the cultural connection theme emphasized the group nature of communicating with others in the new culture, this theme highlighted the more personal nature of the journey for cultural discovery.

In summary, the participants in the international first-year experience course tended to be more engaged than their nonparticipant counterparts in their academic programs, more serious about learning, and were more aware of where and how to get help. They also tended to be more involved in social activities, encountered more diversity, and were more willing to venture out and explore U.S. culture on their own.

English Proficiency Not Significant

Although it is important to understand the significance of the categories of the two surveys that were significant, sometimes a look at a category that was not significant can provide some insights as well. Although a number of categories for the International First-Year Experience and International Student Adjustment surveys were not significant, the most striking seemed to be the lack of significance for the two English proficiency categories.

Based on Fall 2015 enrollment (n.d.) data, for all first-year international undergraduate students for Fall 2015, only 14.4% came from countries where English is the national or primary language spoken, or where it is spoken by a large contingent of the population (Countries by Languages, n.d.) . Therefore, 85.6% of the first-year class of international students most likely were not native English speakers.

Neither the Academic English Proficiency nor the Cultural English Proficiency categories were significant for either the repeated measures or the independent measures t-test analyses (though based on the differences in questions, it was not possible to evaluate the Cultural English Proficiency category from the International First-Year Experience survey for the repeated measures t-test analyses). This is somewhat surprising since a significant body of research has pointed to the importance of English language proficiency as a one of the best measures of international student adaptation and academic success (Li, Fox, & Almarza, 2007; Galloway & Jenkins, 2010; Beers, 1998; Lopez, 2011). Thus, it was even more surprising that neither category was significant for the multiple regression analyses that predicted satisfaction with university education and university life (proxies for academic and cultural adaptation).

A potential reason could have been that English proficiency gains do not happen in a smooth learning curve moving ever upward. For some students, these gains can come in fits and

starts and may not be as evident in their first semester (Andrade, 2009; Kovtun, 2010). English proficiency at the level of a beginning undergraduate international student in a U.S. college or university is quite dependent on study, practice, and usage. It is entirely possible for international students, especially those who have large country peer groups, in their first semester not to speak very much English if they do not wish to do so.

English proficiency gains are definitely intertwined with other factors, such as self-esteem, self-confidence, a willingness to speak up in class, and to seek out academic and social interactions—elements that did prove significant for the two surveys but not for the multiple regression analyses. But just because these elements were significant and the course participants may be more engaged than nonparticipants does not lead to the conclusion that in the course of a few months all these students will make significant English proficiency gains.

The beginning English proficiency levels for the control and treatment groups were probably quite comparable. And even with the additional support of the first-year experience course, because so much of the variation between students is probably based on personal abilities, motivation, interest, and self-confidence, even this extra help did not seem to make enough of a difference to make either of these categories significant. Finally, as a reminder, these surveys are measuring student *perceptions* of English abilities, meaning that some students could well have estimated their English skills and proficiency as stronger or weaker than they actually were.

Conclusions

Substantial Learning but Limited Adaptation

The discussion section above outlined the various themes that emerged from the two surveys. For Research Question 1, the themes certainly seemed to point to the fact that student learning

took place. Ten of the adaptation categories and the satisfaction category were significant. But does this mean that student adaptation occurred?

The period measured by the two surveys was one semester—roughly 3.5 months. Oberg's (1960) Culture Shock model would generally describe most people engaging with a new culture for three to six months to be in the Negotiation phase, whereas the Adaptation phase could take a year or longer to reach. Berry's (1997) Acculturation model, with its four strategies of Integration, Assimilation, Separation, and Marginalization, involves an entire process of people undergoing life events, who are then subject to stressors, then learn coping strategies, which are then subjected to new types of stress. Only after they have worked through these stages of personal development do they reach adaptation. Although Berry does not put a precise time frame on this process, he does imply that this is not a quick process.

This study showed that the course tended to best support student adaptation gains when students engaged with people, especially over points of difference, but also experienced the culture in a personal way, working to understand the culture. In general, though the course supported students learning many things that would lead to adaptation over time, the results of the study did not provide strong evidence of substantial academic or cultural adaptation in just three and a half months.

This conclusion tends to support the theoretical models above that point to adjustment being a more long-term process. For Kovtun' (2010) similar study, she theorized that some of the adaptation components that did not prove to be significant in her survey could represent concepts, actions, attitudes, or behaviors that for students would simply require more time for the students to improve, mature, or make sense of their new culture. It is also possible that these

areas simply did not have as much relevance in students' lives at the time of the surveys. I believe Kovtun's (2010) conjecture would apply to this study and these students as well.

Thus, the conclusion is that although the international first-year experience course did contribute significantly to learning about ISU and U.S. culture for the student participants, the time frame was too short for these students to be fully adapted to their new culture. But since the actual research question asked if the course led to *gains in adaptation*, the repeated measures t-test analyses did provide evidence to support a claim that the students in the course did experience gains in academic and cultural adaptation.

For research question 2, the data from the independent measures t-test analyses showed some levels of change for the course participants in terms of adaptation. There were significant differences between the control and treatment groups for 7 of the 13 adaptation categories. Further, via the multiple regression analyses, we learned that only two categories—Academic Success and Cultural Engagement—were significant in both academic and cultural realms for contributing to international student adaptation.

Therefore, it seems safe to say that the treatment group is further along in some areas of learning and adaptation than their control group colleagues, but certainly not in all areas. As discussed for research question 1, the first-year experience course seemed to have provided the student enrollees a jump start for student adaptation, but it did not lead to their being fully adapted to ISU and U.S. culture.

It is of particular note also that for the two regression analyses the variable of participation in the international first-year experience course was not significant. Said more directly, this says that the “treatment” of participating in the international first-year experience

course did not seem to significantly contribute to the academic or cultural adaptation of the students who were in the course. The respective p values (university education $p = .421$, university life $p = .730$) were not even close to significance. This point serves to reinforce the argument that the course did seem to support substantial learning but limited adjustment.

Results Support Theoretical Framework

The theoretical framework used throughout the study to analyze international student adaptation has been Astin's (1993) Input-Environment-Output model. The inputs are the independent variables, particularly demographic variables for students. In this study, these variables included participation in the international first-year experience course, age, gender, world region, immigration status, and college. As was described in Chapter Four, immigration status and college were not used in the analyses. The other independent variables included the student perceptions on the questions of the 13 academic and cultural adaptation categories, which comprised the environmental variables of the model. The output for this model is the dependent variable of student learning, student success, or in the case, student adaptation. For this study, the dependent variables included the levels of satisfaction with university education and satisfaction with university life.

Astin's (1993) Input-Environment-Output model also is compatible with his other work (1991) which emphasizes the importance of engagement and involvement in college, specifying that this engagement and involvement requires work and energy and that involvement contributes greatly to academic success. Merging the concepts of the I-E-O model and his Theory of Student Involvement (1984), the four emergent themes from the survey analyses of academic connection, personal exploration, cultural connection, and cultural empathy, which

emphasize engagement both with people and culture, mesh well with Astin's (1993, 1984) bodies of work.

Implications

A First-Year Experience Course for Undergraduate International Students

In the ISU context, limiting a first-year experience course to international students enabled the curriculum and instruction to either focus on components unique to international student learning and adjustment or approach topics from standpoints that would not have relevance for U.S. students. The curriculum for the course included a variety of topics, including campus resources, campus safety, studying and writing strategies, and how to be successful in the classroom. There were presentations about the U.S. higher education system, about the benefits of joining campus organizations, overcoming culture shock, money management, staying healthy, and career development. Instructors provided tips about interacting with U.S. culture and diversity. Students had opportunities to hear tips from current international student about how to be successful at ISU. Small group sessions allowed students to delve into topics in more depth and get to know other international students and some U.S. students as well.

This study has provided arguments to encourage U.S. higher education institutions to consider an international first-year experience course as a worthwhile strategy for university administrators to support undergraduate international student learning and adaptation. Such a course would allow undergraduate international students to have a safe and friendly academic environment devoted solely to their success that would support learning and long-term adaptation. An emphasis could be placed on having instructors and current students leading the course who demonstrate their interest in the students' well-being and success.

Although a first-year experience course composed of U.S. and international students would provide some level of benefit to undergraduate international students, because international students usually represent a small percentage of the incoming undergraduate class at U.S. colleges and universities, the curriculum of such a course would most likely be geared more to the U.S. students. Since international students, especially first-semester undergraduate students from Asia, would be less likely to speak out or ask questions in a large lecture setting, the course would probably be dominated by the U.S. students.

The first semester of an undergraduate student's college career is a time of significant change for the student—U.S. or international. The student is having to develop self-discipline to get up on time, go to class, do homework, study for tests, and a myriad of other things without the watchful eyes of parents or other support networks. International students can have these issues, along with the overlays of doing new things in a new culture, perhaps in a different language, all that is very different from where the student lived and grew up.

A first-year experience course for international students would need to be built on the literature, theory, and research (in addition to consulting with local administrators, faculty, and international students to include any local necessary elements and to conform to any local requirements) that would call for incorporating topics into the curriculum that would be the most important and helpful for the new international students. As was done in the ISU international first-year experience course, the curriculum could include opportunities for course instructors and small group leaders to encourage in class participation, group work, brainstorming, and critical thinking—all potential areas of difficulty for new international students. Generally, when international students are part of a course/class with other international students of roughly the

same level of English proficiency, they tend to be less inhibited from speaking in class or small group discussions.

Further, a strong argument could be made that an international first-year experience course composed of only a lecture component would be missing a crucial element. For the ISU course, the small group/recitation section was included to combat the issue of the new international students probably not asking any questions during the lecture sections. Also, the smaller groups would help the international students feel more accountable to their group leaders—who would want to see their journals and ask them questions about their understanding of the concepts presented in the large lecture sections. Further, the student would feel a kinship to their fellow group members and would be more likely to complete their assignments that would require them to visit campus offices, meet with U.S. students, and the variety of other assignments that were designed to help the students to have more cultural interaction and step out of their comfort zones.

Therefore, the addition of a small group component should be considered. Granted, adding small group sections significantly increases the logistical complexity and cost of such a course since student leaders need to be hired and trained. Paying these student leaders is strongly suggested since student volunteers, however good willed and initially motivated, would most likely have less motivation to continue as leaders without monetary incentives.

After arguing for an international first-year experience course for international undergraduate students, one may ask whether graduate students should be included in international first-year experience courses? Although new international graduate students who did not undergo an undergraduate program in the U.S. could well face many of the same adaptation and adjustment issues as beginning undergraduate international students, they have

some advantages that may make their adjustment and adaptation less problematic than for undergraduate international students.

In general, graduate students, both U.S. and international, tend to be older. They have already been through at least an undergraduate program somewhere. Combining these two facts means that these students are probably further along in their adult maturity and personal student development journey. They should understand themselves better in terms of their strengths and weaknesses and better understand how universities work—even if they did not study at a U.S. institution for their past degree(s).

These graduate students could face some of the same adaptation issues as undergraduate international students in terms of adjusting to a more student-centered and participation-rich classroom environment, to not necessarily being any better at interacting with U.S. students, or any of the other adaptation issues discussed throughout this dissertation. Despite these issues, these graduate students still have more experience being a college student and interacting with an institution of higher education—regardless of the country where that institution is. And usually (though not always), graduate students have a closer connection to their department and their faculty than undergraduates do, and could be therefore better supported in terms of advice and support to assist in adapting to the new culture.

Of course, there will be exceptions, but the conjecture is that graduate students would need less support to adjust to a U.S. institution than undergraduate students. Could they benefit from a course that would help introduce them to their new U.S. institution? Certainly. But this course would probably only be of greater benefit to those students who did not study previously in the U.S.

Since many graduate students have research or teaching assistantship, it is entirely possible that their home departments would question the value, cost, and time commitment of allowing these students to take these courses and be away from work in their departments. To date, there is only one known instance of a first-year experience program that is mandatory for graduate students. It is optional for new undergraduate students (McCollough & Solko-Oliff, 2013).

Finally, because of the different developmental needs of each group, mixing undergraduate and graduate students in the same first-year experience course would probably not benefit either group as much as having separate courses for each. Therefore, the conclusion is that although there would certainly be value in having a first-year experience program for graduate students, there are sufficient counter arguments to cause university administrators and college faculty to question such a course's value.

International Students as a Group and as Individuals

Although in this study, such factors as academic class level (first-year, second-year, etc., master's or doctoral student), age, country of origin, level of financial support, major or college, and size of institution did not have a significant influence or were not tested for significance, these and other demographic characteristics can influence an international student's level or pace of adjustment and adaptation (Jacob, 2001). These differing characteristics point to the fact that international students are all different. Adaptation or adjustment strategies used by institutions need to be aware of when to treat international students as individuals and when to treat them as a country, language, religion or other types of groups (Farkas, 2005; Fritz, Chin, & DeMarinis, 2008).

In the Students' Best Interests

It is entirely possible that not all new international students will see the value of an international first-year experience course. Particularly for students who come from a secondary and higher educational system that includes few or no general education courses and where university students begin their major courses right away in their very first academic term, the new students may see a first-year experience course as a waste of time. It may take longer for these students to learn the relevance of this course, but the relevance does generally become clearer once students become involved in their other courses and when they become more engaged with other students and small group leaders in the first-year experience course (Kovtun, 2010).

Limitations

The sample size limited the power of the analyses used in the study in terms of the number of variables that were possible. With the smaller sample sizes limiting power, it was not advisable to conduct t-test or multiple regression analyses utilizing the questions that comprised the academic and cultural adaptation categories. This would have resulted in a large number of independent variable that the sample sizes could not support without an increased risk of Type II errors. For example, while the category U.S. Culture Engagement was significant for the t-test analysis of the International First-Year Experience survey and both the t-test and multiple regression analyses of the International Student Adaptation survey, we do not know which of the seven questions that comprised the category would have been significant.

The Cronbach's alpha score for this category was .88 for both surveys, indicating a fairly high internal consistency for the category and showing that the differing questions are generally measuring the same concept. But the questions deal with (1) a student making his/her way around campus, (2) adjusting to U.S. food, (3) understanding U.S. culture, (4) seeing things from

a U.S. perspective, (5) dealing with the climate, and dealing with the new culture's (6) bureaucracy, (7) rules, and laws. Although the latent concept of engaging with culture is understandable, these questions are quite different. Just because a person could easily adjust to climate or laws does not mean that easily adjusting to new food possibilities is inevitable.

This same argument about the constraints on questions from the adaptation categories applies to the demographic variables. One demographic variable, immigration status was not used because 99.03% of the respondents had F-1 status. Thus, since there was virtually no variability in question responses, that variable was not included in the regression analyses. The six colleges and seven world regions were set up as dummy variables to facilitate their use, but in the end, because of sample size, they were not included as variables. Another limitation was timing. If it had been possible to gather responses from student not enrolled in the international first-year experience course in September and compare their responses for September and December as was done for the treatment group students, this would significantly enhanced the study.

Finally, this study involved students completing surveys. Students completed their answers based on their own perceptions of their actions, attitudes, and behaviors. Those answers could potentially have not been based in reality—but based on the students answering in a way that they thought the researchers or their instructors would want, in how they wanted to be seen (highly motivated, strong study skills, actively engaged with their professors and classmates when this is not actually the case), or with a score or level they aspire to have. Or the student could have simply not cared and scored the survey in a random fashion—just to complete it.

Recommendations for Practice

International First-Year Experience Courses

As discussed in the Implications section above, this study has added to the current research and literature that recommends that institutions should seriously consider having a first-year experience course for undergraduate international students—apart from any first-year experience course for U.S. students. Whether graduate students would gain enough to merit such a course is discussed above and is open to debate.

Several arguments are generally heard against international only first-year experience courses. The first argument is that such a course would slow down an international student's time to degree or that there is not room in a lock-step academic program that has set courses a student must take over the course of that student's academic program to graduate. The next argument is that having a course only for international students runs counter to the goal of having international students interacting with U.S. students in their courses. A third argument could be that such a course could be too costly to run or require too much time from a faculty member or administrator to manage.

Although these arguments have merit, first-year experience courses are usually only one credit and would not generally slow down or have that strong of an impact on an undergraduate program. In terms of interacting with U.S. students, international students enrolled in a first-year experience course only for international students would generally have the rest of their courses with U.S. students and would have plenty of other opportunities to interact with them. As far as financial or time commitments, the institution would need to decide if it feels such a course would be of a great enough benefit to make the allocation of time and money for faculty or administrative oversight.

One seeming compromise would be to have a first-year experience for all new students—U.S. and international, as happens on many campuses. As discussed in the Conclusions section, although such a course would be better than no course, since international students generally are a minority on U.S. campuses, these first-year experience courses would most likely be tailored for U.S. students or may only include a few curricular items specifically for international students (Kovtun, 2010).

Multi-tiered Orientation Approach

Just as an international first-year experience course should be part of a comprehensive program to support student adjustment, an international first-year experience program should be part of a multi-tiered approach to orientation. This approach should include (1) pre-arrival information at least but could include pre-arrival programs in country, webinars for the incoming students or online modules of relevant information, (2) a comprehensive on-campus orientation program, and (3) a targeted extended orientation program or programs, such as a first-year experience course (Education Advisory Board, 2014).

In many cases, university international student or admissions offices have traditionally provided an orientation program varying from a day to two weeks for their new international student population—and sometimes only for new undergraduate international students. The problem with these conventional orientation programs is that trying to provide all the information new students need in the course of a few days or a week usually results in information overload. Plus, the students are often still suffering from jetlag and are having to listen to extensive information and detailed instructions in a foreign language. Finally, many of the situations being explained to them, such as how to successfully behave in a U.S. classroom, do not have as much impact until the students have encountered these situations.

The orthodoxy of only having an orientation just before the start of a new semester has started to change in recent years as universities have begun to have a two- or three-pronged approach. The first tier of this new approach has been to push out information in the form of web- and media-based information to students before they arrive. The idea is not that the learning will necessarily have more relevance to the students (as with an extended orientation program), but that the students will have the time to absorb the information and are eager to learn more about their new institution and home.

On the other end of the conventional orientation program is some sort of follow up program to “extend” orientation, with the idea of providing continued opportunities for new student learning when the learning will have more relevance for the students. These can be several programs during the students’ first semester, a short study skills course, or a half- or full-semester or trimester program, such as the U ST 110X course. Kovtun (2010) expresses her support for an international first-year experience course:

A semester-long course may thus be a more effective intervention than (or an effective compliment to) a one-day orientation program, introducing new coping strategies and allowing [students] to try them out, and if they prove ineffective, seek help with new techniques (p. 148).

The best concept is to do all three of these: pre-arrival information, on-campus orientation, and extended orientation programs, such as a first-year experience course. Also administrators and faculty working with first-year experience courses should work to continually improve these courses and as much as possible have them classified as general education requirements and not just another expanded orientation program.

On April 5, 2016 the Iowa State Faculty Senate took a step in this direction by removing the “X” from the U ST [University Studies] 110X (“X” standing for experimental) and making this course mandatory for incoming undergraduate international students (2015-2016 Faculty Senate Docket Calendar, n.d). The course is also offered on a pass-fail basis, which takes some of the pressure off students to achieve a high grade or a minimally passing grade.

Faculty Teaching International First-Year Experience Courses

The biggest issue for universities regarding international students is finding the right combination of strategies to help international students with adjustment, adaptation, and acculturation (Lopez, 2011; Kovtun, 2010; Deitchman, 2014; Nassim, 2011). A major component of this issue is helping international students and U.S. students to be better integrated as one student body of the college or university (Burkhardt, 2013; Wang, 2004; Sumer, 2009). Probably the next biggest issue that needs attention in supporting international student adjustment and success as students is working with faculty to help them understand the issues international students face and how to better support them (Nassim, 2011).

One way to help educate faculty is to have them be part of the team that develops the curriculum and teaches the international first-year experience course—or at least help teach the course. This option would provide opportunities for faculty to gain a better understanding of the issues and challenges international students face and how to better support them. Finding ways to convince faculty who are already busy people with perhaps tenure acquisition, teaching, and researching to worry about may involve some variety of incentives and buy-in from university leadership.

Most likely the curriculum for an international first-year experience course would tend to be based on a variety of different topics related to academics and student life. It would be entirely possible for the course to be taught solely by student affairs administrators or graduate students from the international student office. But having new international students interact with faculty who are there to teach and learn from the international students would be a positive situation for both students and faculty. Of course, having administrators who do not generally work with international students teaching sections of the course would be helpful to them as well.

Working with First-Year Experience Programs

Although it has been argued that international undergraduate students would benefit more from a first-year experience course designed specifically for them, this is not to say that first-year experience courses enrolling international and U.S. students do not have their place. Each campus is different and perhaps an all-inclusive first-year experience course is the best or only option for that campus. If such is the case, administrators and faculty supporters of international students should work to make that first-year experience course as supportive as possible for international students.

Further, administrators and faculty who create and administer international first-year experience courses should be encouraged to work to publicize such courses by writing about them in higher education, student affairs, and international education journals and becoming involved with professional associations, journals, and conferences that concentrate on first-year experience courses, new student orientation, and international education.

A Comprehensive International Student Adjustment Strategy

An international first-year experience course is but one part of what should be a comprehensive strategy by U.S. institutions to support adaptation and adjustment for international students. Current literature points to the enhanced retention and persistence of international students who are better adapted to their university's academic and cultural environment. In addition to staying and graduating, students who are better adjusted and invested in their campus culture tend to be more successful (Farkas, 2005; Zhao, Kuh, & Carini, 2005; Soria & Lueck, 2016; Glass, 2012).

Further, having international students at U.S. campuses supports other worthwhile goals of helping U.S. students to have a more global perspective and assisting with the larger goal of internationalization on that campus. In addition to these more lofty goals, there is the more mundane but important point about how international students help provide substantial revenues to university coffers through international fees or international rates of tuition, as is the case at Iowa State University.

Finally, international first-year experience courses are not the only types of programs that should be part of a university's strategies to enhance adaptation and internationalization. Other high-impact strategies could include peer mentoring programs, international housing options, international learning communities, international-domestic student leadership programs, service learning projects, just to name a few options (Soria & Lueck, 2016; Glass, Schneider, 2010, 2013).

Recommendations for Future Research

This research study encompassed one semester of a fall semester for first-year undergraduate international students. To fully analyze the impact of an international first-year experience course, it would be best to have several years of data from several cohorts of students,

and/or document the perceptions and impressions of a cohort for a longer period than just one semester. Additionally, expanding the sample size both in terms of an ISU student population and with student populations from other U.S. institutions that have international first-year experience courses is recommended. Also incorporating different types of institutions—public and private, small to large, religious and secular, community colleges up to doctoral institutions— would assist in being able to generalize to a larger population.

Expanding the sample size sufficiently would have enabled the survey data to be analyzed at the question level rather than just the category level without having to worry about Type II errors. The different questions that comprised a category were definitely related to each other, as evidenced by the reasonably high Cronbach's alpha scores for each of the categories. However, the questions for each category were different. Analyzing a survey with a larger number of questions or a subset narrowed down through an exploratory factor analysis could bring out nuances of meaning that could not be addressed in a study with a sample size that is too small.

Just as the limitations on sample size handicapped the full use of the various demographic variables in this study, future research studies could benefit from employing a richer variety and greater depth of demographic variables. Based on differences in educational, political, or religious systems, it may be difficult to obtain data about financial aid or high school grade point average from foreign countries, parental education, or socioeconomic status. However, such data as standardized test scores (ACT, SAT, TOEFL), college GPA, National Survey of Student Engagement (NSSE) results, or campus interactive educational support data, such as Mapworks, should be easier to obtain.

As has been stated in earlier chapters, there is considerable research on international student adaptation and on first-year experience courses but little on international first-year experience programs or courses. This study will add to the few studies already completed (Andrade, 2005; Kovtun, 2010). There is a definite need for more international first-year experience courses and more studies to examine their usefulness—whether those studies are quantitative or qualitative in nature. Further, complementing this or other quantitative studies of this topic with qualitative studies would add another layer of complexity and insights. Studies utilizing quantitative and qualitative methods make use of the strengths of both methodologies.

For instance, in this study, interviews or focus group discussions could have been held with course participants, instructors, recitation leaders, and other members of the campus community. Analysis could also have been conducted on student papers and journal entries from the recitation sections, as well as the student final projects. Conducting interviews and analyzing documents could lend much perspective and potentially bring out a variety of insights that could supplement quantitative findings.

Finally, the recognition has been made above that at least for the present, there are many more institutions using first-year experience programs that include international students in with U.S. students. Since these types of first-year experience courses are more the norm for U.S. institutions, an examination of how they contribute or do not contribute to international student success, learning, and/or adaptation would be a worthy addition to the literature.

Final Note

New international students come to the U.S. to fulfil their or their parents' dreams of obtaining a degree from a U.S. institution with the hopes that it will provide them advantages either in the U.S. or back home after graduation. They come from across oceans, travel

thousands of miles across the world to represent the hopes and dreams of not just themselves, but of their family, town, or village.

Bringing these students to universities like Iowa State, it behooves the faculty and administrators of the receiving university to take seriously their responsibility to devote sufficient resources to support these international students through what can often be a difficult or rocky first year at a university. These can be young, scared and weary new world travelers. The adage from the movie *Field of Dreams* that took place in Iowa goes “build it and they will come.” The international students are coming. They are bringing their dollars, their enthusiasm, their energy to U.S. universities in search of their dream. They are owed the best adaptation strategies—such as international first-year experience courses—to help them move past that crucial first year and well down the road of adaptation and acculturation, so that they can fully participate in the culture and have a full and rich U.S. university experience, as well as turning their hopes and dreams into realities.

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APPENDIX A. OFFICE FOR RESPONSIBLE RESEARCH APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515-294-4366
FAX 515-294-4367

Date: 11/12/2015

To: Dr. James Dorset
427 N. Shaw Lane, International Center 105
East Lansing, MI 48824

CC: Dr. Linda Serra Hagedorn
E262 Lagomarcino Hall
Dr. Ann Gansemer-Topf
2621 Lagomarcino

From: Office for Responsible Research

Title: New International Undergraduate Student Adjustment at Iowa State University

IRB ID: 15-652

Study Review Date: 11/12/2015

The project referenced above has been declared exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b) because it meets the following federal requirements for exemption:

- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey or interview procedures with adults or observation of public behavior where
 - Information obtained is recorded in such a manner that human subjects cannot be identified directly or through identifiers linked to the subjects; or
 - Any disclosure of the human subjects' responses outside the research could not reasonably place the subject at risk of criminal or civil liability or be damaging to their financial standing, employability, or reputation.

The determination of exemption means that:

- You do not need to submit an application for annual continuing review.
- You must carry out the research as described in the IRB application. Review by IRB staff is required prior to implementing modifications that may change the exempt status of the research. In general, review is required for any modifications to the research procedures (e.g., method of data collection, nature or scope of information to be collected, changes in confidentiality measures, etc.), modifications that result in the inclusion of participants from vulnerable populations, and/or any change that may increase the risk or discomfort to participants. Changes to key personnel must also be approved. The purpose of review is to determine if the project still meets the federal criteria for exemption.

Non-exempt research is subject to many regulatory requirements that must be addressed prior to implementation of the study. Conducting non-exempt research without IRB review and approval may constitute non-compliance with federal regulations and/or academic misconduct according to ISU policy.

Detailed information about requirements for submission of modifications can be found on the Exempt Study Modification Form. A Personnel Change Form may be submitted when the only modification involves changes in study staff. If it is determined that exemption is no longer warranted, then an Application for Approval of Research Involving Humans Form will need to be submitted and approved before proceeding with data collection.

Please note that you must submit all research involving human participants for review. Only the IRB or designees may make the determination of exemption, even if you conduct a study in the future that is exactly like this study.

Please be aware that approval from other entities may also be needed. For example, access to data from private records (e.g. student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. An IRB determination of exemption in no way implies or guarantees that permission from these other entities will be granted.

Please don't hesitate to contact us if you have questions or concerns at 515-294-4566 or IRB@iastate.edu.

APPENDIX B. INFORMED CONSENT FORM

Informed Consent Form for International Student Adjustment Survey

Note: This informed consent form is the first page of the survey. Prospective participants will need to read this page and click “I agree” or “I do not agree” at the bottom of the page to start the survey.



Informed Consent Agreement

Please read this consent agreement carefully before you decide to participate in the study.

Purpose of the research study: The purpose of the study “New International Undergraduate Student Adjustment at Iowa State University” is to analyze how new undergraduate international students at Iowa State adjust over the course of their first semester.

What you will do in the study: You have been asked to complete a survey inquiring about how you are adjusting to life at Iowa State.

- ☐ If you are enrolled in the U ST 110X international first-year experience course, you will be asked to provide a unique identifier so that your results can be linked with your previous results if you completed this survey earlier this semester. Data from this survey will be linked to previous responses from an initial survey administered in the third week of class for students in the U ST 110X course. By clicking the "I agree" button below, you are agreeing to allow the researcher to link this survey to an initial survey administered in the U ST 110X course.
- ☐ If you are not enrolled in the U ST 110X course, you will not be asked to provide any identifying information unique identifier.
- ☐ You can skip any question that makes you uncomfortable and can stop taking the survey at any time. If you agree to take the survey, simply start by clicking the "I agree" button at the end of this agreement. If you do not wish to take the survey, click the "I do not agree" button.

Time required: The survey will require about 15 – 20 minutes of your time.

Risks: This study does not involve any foreseeable risks to you. The survey information you provide will be kept confidential. The researcher will not know your name. No identifying or

other information will be provided to your instructors.

Benefits: There are no direct benefits to you for participating in this research study. However, information drawn from this study can be used by current and future international students, as well as faculty and administrators both at Iowa State and beyond to help them make improvements in academic courses as well as programs and services to help with international student adjustment to American universities.

Confidentiality: The information that you give in the study will be handled confidentially. Your data will be anonymous which means that your name will not be collected or linked to the data. The data gathered from this survey will only be seen by the researcher and potentially his doctoral committee. The data will be kept on a secured computer behind a variety of university information technology fire walls.

Payment: You will receive no payment for participating in the study. However, two of the emails from participants in this survey will be selected in a random drawing by the researcher to receive \$25 ISU Bookstore cards. The approximate odds of being selected are 1 in 150.

Questions: If you have any questions about this study please the researcher, James Dorsett, at the e-mail address jdorsett@iastate.edu or 517-353-1741. You may also contact the supervising faculty member, Dr. Linda Hagedorn, at lindah@iastate.edu or 515-294-5746. You may also consult with the Iowa State Office for Responsible Research at orrweb@iastate.edu or 515-294-1516.

- ☐ I agree
- ☐ I do not agree

APPENDIX C. SURVEY QUESTIONS

International First Year Experience Survey

Q1

Informed Consent Agreement

Please read this consent agreement carefully before you decide to participate in the study.

Purpose of the research study: The purpose of the study “New International Undergraduate Student Adjustment at Iowa State University” is to analyze how new undergraduate international students at Iowa State adjust over the course of their first semester.

What you will do in the study: You have been asked to complete a survey inquiring about how you are adjusting to life at Iowa State.

- ☐ If you are enrolled in the U ST 110X international first-year experience course, you will be asked to provide a unique identifier so that your results can be linked with your previous results if you completed this survey earlier this semester. Data from this survey will be linked to previous responses from an initial survey administered in the third week of class for students in the U ST 110X course. By clicking the "I agree" button below, you are agreeing to allow the researcher to link this survey to an initial survey administered in the U ST 110X course.
- ☐ If you are not enrolled in the U ST 110X course, you will not be asked to provide any identifying information unique identifier.
- ☐ You can skip any question that makes you uncomfortable and can stop taking the survey at any time. If you agree to take the survey, simply start by clicking the "I agree" button at the end of this agreement. If you do not wish to take the survey, click the "I do not agree" button.

Time required: The survey will require about 15 – 20 minutes of your time.

Risks: This study does not involve any foreseeable risks to you. The survey information you provide will be kept confidential. The researcher will not know your name. No identifying or other information will be provided to your instructors.

Benefits: There are no direct benefits to you for participating in this research study. However, information drawn from this study can be used by current and future international students, as well as faculty and administrators both at Iowa State and beyond to help them make improvements in academic courses as well as programs and services to help with international student adjustment to American universities.

Confidentiality: The information that you give in the study will be handled confidentially. Your data will be anonymous which means that your name will not be collected or linked to the data. The data gathered from this survey will only be seen by the researcher and potentially his doctoral committee. The data will be kept on a secured computer behind a variety of university information technology fire walls.

Payment: You will receive no payment for participating in the study. However, two of the emails from participants in this survey will be selected in a random drawing by the researcher to receive \$25 ISU Bookstore gift cards. The approximate odds of being selected are 1 in 150. You may or may not be offered class participation credit in the U ST 110X course for participating in this study.

Questions: If you have any questions about this study please the researcher, James Dorsett, at the e-mail address jdorsett@iastate.edu or 517-353-1741. You may also contact the supervising faculty member, Dr. Linda Hagedorn, at lindah@iastate.edu or 515-294-5746. You may also consult with the Iowa State Office for Responsible Research at orrweb@iastate.edu or 515-294-1516.

- ☐ I agree
- ☐ I do not agree

Q2 Welcome to the International Student Adjustment Survey!

Q3 U ST 110X (International First-Year Experience Course) Enrollment

Are you enrolled in the U ST 110X Course for the Fall 2015 Semester?

- ☐ Yes
- ☐ No

Q4 Unique Survey Identifier

If you are enrolled in the U ST 110X course, please type in your unique survey identifier in the box below. This will be your birthdate in numbers plus the first four digits of your ISU ID number. The purpose of the unique identifier is so that if you agree to take the survey at the end of the semester, your data from this survey can be compared to your data from the second survey.

For example, if your birthdate is 29 August, 1995 and your ISU ID is 123456789, please type **2908951234**.

If you are not enrolled in the U ST 110X course, you do not need to provide a unique identifier.

Q5 Consent Age

Are you age 18 or older?

☐ Yes

☐ No

Q6 Age

Q7 Gender

☐ Male

☐ Female

☐ Prefer not to answer

Q8 Country of Citizenship

Q9 Immigration Status

- ☐ F-1
- ☐ F-2
- ☐ J-1
- ☐ J-2
- ☐ Other _____

Q10 Major

- ☐ Undeclared
- ☐ Other _____

Q11 ISU College

- ☐ College of Agriculture and Life Sciences
- ☐ College of Business
- ☐ College of Design
- ☐ College of Engineering
- ☐ College of Human Sciences
- ☐ College of Liberal Arts and Sciences

Q12 U.S. Education System How well do you understand the following aspects of the U. S. education?

	Not at All	A Little Bit	Some	Quite a Bit	Very Well
Academic freedom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academic honesty/misconduct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Degree requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How classes work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Levels of education in the U. S.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q13 Use of University Resources How often have you used each of the following resources this semester?

	Never	Rarely	Some of the Time	Often	Very Often
Academic Success Center (for tutoring)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career Services Resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
International Student & Scholar Office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Library Resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Residence Hall Resources (Talk with CAs or Hall Director, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Counseling Center	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Health Center	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing Center	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14 Academic Engagement About how often have you done each of the following during this semester?

	Never	Rarely	Some of the Time	Often	Very Often
Made a class presentation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Met with your academic advisor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Met with your instructor or a teaching assistant outside of class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worked with classmates outside class to prepare class assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worked with other students on class projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q15 Interactions with Diversity About how often have you done each of the following during this semester?

	Never	Rarely	Some of the Time	Often	Very Often
Had meaningful conversations with students of a different race/ethnicity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had meaningful conversations with students from a different country (but not the U.S.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had meaningful conversations with students of a different religion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had meaningful conversations with students of a different sexual orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had meaningful conversations with students of different political opinions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had meaningful conversation in class about different aspects of diversity in the U.S	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attended educational events regarding diversity in the U.S.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q16 Social Involvement About how often have you done each of the following during this semester?

	Never	Rarely	Some of the Time	Often	Very Often
Attended academic lectures outside of class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attended social events on-campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attended social events off-campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attended religious events on-campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attended religious events off-campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helped organize an event	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volunteered	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Joined a campus club or organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q17 Academic English Proficiency Please rate your English abilities as they relate to the classroom or studying:

	Poor	Fair	Average	Good	Excellent
Write clearly and effectively in English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Speak clearly and effectively in English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand spoken English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analyze literature or textbooks in English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make effective presentations in English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q18 Cultural English Proficiency Please rate your English abilities as they relate to your life outside the classroom or studying:

	Poor	Fair	Average	Good	Excellent
Writing skills in English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading skills in English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Listening skills in English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Speaking skills in English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q19 Thinking and Learning Abilities Please rate your thinking and learning abilities in the following areas since coming to this university:

	Poor	Fair	Average	Good	Excellent
Developing and implementing personal goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning effectively on my own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thinking critically and analytically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identifying my career goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding my learning style	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q20 Involvement with American Peers About how often have you done each of the following during this semester?

	Never	Rarely	Some of the Time	Often	Very Often
Had meals with American students in the cafeteria	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spent time with American students outside classroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visited American students at their rooms or homes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q21 Personal Motivation How often do you typically find yourself in the following situations?

	Never	Rarely	Some of the Time	Often	Very Often
Even if I do not like the assignment, I can motivate myself to finish it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Even if I struggle with the course, I can motivate myself to do my best in it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Even when studying is boring I can force myself to keep working on it until I finish it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always know when assignments are due.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I set goals for the grades I want to get in my courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am tempted to do something fun, I can motivate myself to finish studying first.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When it comes to my education, I set specific goals for myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When the material is too difficult, I only study the easy parts, or give up.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q22 Academic Adjustment Please indicate to what extent you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I consider myself to be a successful student.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understand professors' expectations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understand what constitutes appropriate classroom behavior in the U. S.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understand U. S. classroom culture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know who to ask for help at the university.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable contacting professors for help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have attended classes regularly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have confidence in my ability to succeed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understand what I need to do to achieve my goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q23 Cultural Adjustment: Communicating with Americans Please state to what extent you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I feel comfortable communicating with American students in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable communicating with American students outside class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable contacting American students for help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable interacting with people of different race/ethnicity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable interacting with people of different sexual orientation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable interacting with people of different religion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable interacting with my roommate(s) or housemate(s).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident in dealing with someone who provides unsatisfactory service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident in dealing with someone who is rude or treats me poorly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q24 Cultural Adjustment: Interacting with American Culture Please state to what extent you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I feel comfortable finding my way around campus and the community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable eating American food or finding food I like.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I am able to understand American culture reasonably well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable seeing things from an American point of view.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to deal with the climate in the U.S.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable dealing with bureaucracy in the U.S.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable following American laws and university rules and regulations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q25 Satisfaction Please state to what extent you agree or disagree with the following statement:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I am satisfied with my instructors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the quality of education at the university.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with my life at the university.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with my decision to come to this university.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with how the university is supporting me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend the university to my friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q26 Please click the blue arrow to the right to submit your responses

APPENDIX D. INTERNATIONAL FIRST-YEAR EXPERIENCE COURSE SYLLABUS

International First-Year Experience Course Syllabus

UST 110X: INTERNATIONAL FIRST YEAR EXPERIENCE SEMINAR Fall 2015

Section A: M 4:10-5:00PM

Instructor: (Deleted) (ifyegrad1@iastate.edu)

(Deleted) (ifyegrad2@iastate.edu)

Office hours: By appointment

Required Text:

SEMINAR OVERVIEW

This course focuses on your transition to college in the U.S., Iowa State University resources, U.S. Culture, and personal development through a large lecture and a peer mentor-led recitation section. Peer Mentors called International First-Year Experience Coordinators, will facilitate discussions, in-class activities, and learning experiences during your weekly recitation. The purpose of this course is to create an intentional space for new (freshman) international students, where:

- 1) you will be able to learn about and cope with transitional issues you face upon arriving in the U.S.
- 2) you will be introduced to resources and information that will increase your likelihood of success as undergraduate students at ISU by allowing you to take full advantage of the available benefits.

COURSE OBJECTIVE

By the end of the course, you will have had an opportunity to learn about issues of (1) culture shock, (2) adaptation to U.S. culture and classroom, (3) campus and community resources, (4) learning styles, (5) study skills, (6) basic immigration status and employment benefits, (7) health and wellness as a student, and (8) research and presentation skills.

COURSE POLICIES AND REMINDERS

Attendance: Attendance and participation in this course are required. You may have no more than three absences of any kind, excused or unexcused, in order to earn a satisfactory grade. Attendance is recorded, and your being late may cause you to be marked absent.

Academic Dishonesty: The class will follow Iowa State University's policy on academic dishonesty. Plagiarism, cheating, and other forms of academic dishonesty will not be tolerated in the course. Please review the university's policy on academic dishonesty (<http://www.dso.iastate.edu/ja/academic/misconduct.html>). Anyone suspected of academic dishonesty will be reported to the Dean of Students Office.

Disability Accommodation: Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact your instructor during office hours within the first two weeks of the semester or as soon as you become aware of your need. Before meeting with your instructor, you will need to obtain a Student Academic Accommodation Request (SAAR) form with recommendations for accommodations from the Disability Resources Office, located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-7220; their email is disabilityresources@iastate.edu. Retroactive requests for accommodations will not be honored.

Assignments : Students will be expected to complete multiple in-class assignments such as reflection papers. They will also be required to complete **two** out of class assignments. Details of assignment 2 and 3 will be discuss at a later date (refer syllabus). Brief details of the assignments are as followed:

1) Reflection papers

- a. Students will have to write a one-paragraph reflection paper related to the weekly lecture topic. Students are encouraged to include personal experience related to the topic discussed in the lecture.
- b. Reflection paper should one paragraph (5 to 7 sentences). Students will have to write a paper at the beginning of each recitation session. Maximum writing time is 10 minutes. At the beginning of each recitation session, IFYE Coordinators will provide writing prompts which will help students to write effectively. Do they share their reflection/ discuss about it?
- c. Students will have to write 4 reflection papers of varying lengths during the course related to certain topics.

2) Meet with a American student – give a short presentation about that experience to your recitation section

- a. Must meet with an American student 2 times during the semester. You can choose your classmate/neighbor or professor, etc. You are advised to spend at least 30 minutes per session.
- b. Must write a reflection on your experience (300-500 words). IFYE Coordinators will provide a rubric which will help students to successfully complete the task.
- c. Must create a 2-3 min presentation on your experience.

3) Group project – your recitation section group will work on the final group project which can be a poster presentation or art exhibit. Students will receive the description of specific parameters they need to consider while developing their final project one month before the final project submission.

4) MAPworks or Self-Assessment Paper

- a. Option 1: Complete MAPworks via AccessPlus
- b. Option 2: Complete a self-assessment (3-5 pages).

5) Research Surveys

Students will complete the following research survey instruments in the course of the seminar.

- a. Thriving Quotient: This is a survey related to student engagement with the campus environment.
- b. Global Perspective Inventory: This is a survey related to student intercultural interaction and engagement.

Successful completion of the MAPworks via AccessPlus or writing self-assessment paper allows evaluating students learning potential and effectively addressing any arising academic issues. Students can complete MAPworks by logging in to Access Plus. They will have to use students' ID and password to log in in the system, and then follow the guidelines to complete MAPworks. Students will be given information in their recitation sections about how and when to complete the research surveys. Students will receive detailed guidelines for the successful completion of the self-assessment paper. The guidelines will be provided at the beginning of the semester prior to the beginning of classes.

Grading: This course is evaluated on a Satisfactory/Fail basis, based on attendance and completion of the required assignments.

COURSE CALENDAR *Subject to change with advanced notice, location is to be determine with advance notice.

Week	Date(s)	Topic	Activity	Reading/Homework
1	8/24	Welcome to ISU! Campus and Community Resources	ISSO Course Coordinator and Teaching Assistants Course overview Common questions, need, concern	Self-reflection paper assigned
		Recitation 1	Team building: Library "scavenger hunt"	
2	8/31	Campus and Community Safety	Guest Speaker	Self-reflection paper due.
		Recitation 2	Safety case studies	
3	9/7 Labor Day	Notice! <i>Lecture will be cancelled; students will have an independent activity which they will discuss during recitation session.</i>	<i>No Class!</i>	
		Recitation 3	Explore Ames/Iowa (outside activity)	

4	9/14	Student Identity Development: Introduction to Clubs and Organization, Intramurals, Lectures and Events	Guest Speaker	Students take Global Perspective Inventory
		Recitation 4	IFYE Coordinators discuss their maturation process.	
5	9/21	Higher Education in the US Studying techniques Interacting with professors and classmates	Guest Speaker	Final Project requirements explained
		Recitation 5	Compare and contrast your home education system to the U.S education system	
6	9/28	Academic Life: Academic misconduct Study skills and writing tips	Guest speaker(s)	
		Recitation 6	Academic Success Academic Dishonesty Group activity: Learn to use the library	
7	10/5	Culture Shock Tips for navigating culture shock	ISSO Teaching Assistants	Final Project Reminder
		Recitation 7	Discussion led by IFYE coordinators. Group activity: Role-play activities to model different situations from college life, Iowa, Iowa State University.	
8	10/12	Money Management U Bill Overview Banking in the US	Guest Speaker U Bill questions and money management	
		Recitation 8	Group Activity: IFYE Coordinators walk students through the process of creating a weekly/monthly budget.	

9	10/19	Interacting with American Culture: American traditions and cultural norms Ways to interact with American culture	ISSO Course Coordinator & Teaching Assistants	Cultural comparison reflection paper assigned Speaking with an American assignment
		Recitation 9	Compare cultural norms between home country and the U.S	
10	10/26	Racism and micro aggressions in American Culture	Guest Speaker and student panelists	
		Recitation 10	Discussion led by IFYE coordinators. Case studies.	
11	11/2	Immigration Benefits and Employment in the U.S: F-1/J-1 Highlights CPT/OPT	ISSO Advisor	Cultural comparison reflection paper due
		Recitation 11	How to stay in status. Students take F-1 and J-1 quiz to win a prize for correct answers.	
12	11/9	Staying Healthy: Health Services and Rec Facilities	Guest Speaker	Final Project Reminder
		Recitation 12	Field trip: Gym. Team-building activity "Scavenger Hunt".	
13	11/16	Career development: Maximizing college years for marketability Resume building Use of college fairs	Guest speaker	Career/Resume enhancement reflection paper assigned
		Recitation 13	Interview Techniques Career aspirations	
14	11/23-27	THANKSGIVING BREAK	No class	No class
15	11/30	Ask an Upperclassman	ISSO Teaching Assistants & Student panel	Career/Resume enhancement reflection paper due
		Recitation 15	Group Activity: In groups of 3-4, interview	

			1 American and 1 international student outside the classroom about being successful at ISU and upload notes.	
16	12/7	No Lecture	No Lecture	Dead Week
		Recitation 16	Students work on their final projects/presentations Take Global Perspective Inventory	
17	12/14 7.30-9.30 AM	FINALS WEEK	Student presentations	

Appendix

International First-Year Experience Course Weekly Schedule and Learning Objectives

Week 1 August 24

Lecture: Welcome to ISU (ISSO Course Coordinator & Teaching Assistants)

- Course Overview
 - Syllabus
 - Course requirements
 - Student expectations
 - Course schedule
 - Recitation sections
- Course objectives
- Introduction of Graduate Teaching Assistants, IFYE Coordinators
- Questions

Learning Objectives: Students will be able to summarize the purpose of the course and what will be required of them as students.

Recitation Session:

- Answer any questions from the lecture
- Team Building exercise
- Importance of Syllabus

Learning Objectives: Students will be able to describe what a syllabus is and why it is important to students.

Week 2 August 31

Lecture: Campus and Community Safety (Guest Speaker)

- Answer any questions from the lecture

- Being safe on campus and in Ames (ISU Police)
- Avoiding Sexual Misconduct (SART)

Learning Objectives: Students will be able to identify three ways to enhance their safety on campus and in the community. Also students will be able to describe three techniques for avoiding sexual misconduct (such as not drinking anything you did not prepare yourself at a party, “No” means “No,” etc.)

Recitation Session:

- Answer any questions from the lecture
- IFYE Coordinators will use several safety case studies to discuss how the students could avoid those situations or act more safely.

Learning Objectives: Each student will contribute one safety tip to a group list to be provided to the group.

Week 3 September 7 Labor Day

Lecture: No lecture

Learning Objectives: Students will be encouraged to go out and have fun around Ames and Iowa.

Recitation Session:

- IFYE Coordinators discuss what they do for fun and how they have traveled around Iowa.
- Students will talk about their Labor Day activities and where they would like to travel in Iowa and the U.S. during their stay in the U.S.

Learning Objectives: Students will be able to identify two places in Iowa and in the U.S. they would like to visit.

Week 4 September 14

Lecture: Student Identity Development (Guest Speaker)

- Discuss how students learn
 - Draw on research from Kolb, Chickering, Perry, Tinto, etc.
- Discuss survey instruments they will take (Thriving Quotient, Global Perspective Inventory, MapWorks)

Learning Objectives: Students will be able to recognize different levels/stages of student development from the models discussed.

Recitation Session:

- Answer any questions from the lecture
- IFYE Coordinators talk about their own maturation and development in college
- Have students take Thriving in College Assessment (Thriving Quotient) and intercultural instrument (Global Perspective Inventory, can be completed on their own time)

Learning Objectives: Students will be able to identify their own level/stage of development using one of the models presented in the lecture.

Week 5 September 21

Lecture: Higher Education in the US (Guest Speaker)

- Overview
 - Grades (100 - 0; A-F; 4:00 – 0.00, etc.)
 - Credit hours
 - Studying hours per week
- American Classrooms
 - Interacting with professors
 - Interacting with fellow students
 - Group work
- Academic Dishonesty
 - Plagiarism (presenting the work of others as your own)
 - Falsification (inventing or altering information)
 - Cheating (looking on another's test, using cell phones to review notes during a test, etc.)
 - Sharing work (copying homework, working together on an assignment when not approved to do so)

Learning Objectives: Students will be able to explain the basics of how the American grading and credit hour system works. Students can list one example from each of the four types of academic dishonesty.

Recitation Session:

- Answer any questions from the lecture
- IFYE Coordinators discuss some examples of academic misconduct in a US setting that would not be academic misconduct in education systems from other countries.
- Check to see that students have taken Thriving Quotient and intercultural instrument.

Learning Objectives: Students will be able to describe multiple examples of differences and similarities between what is considered academic dishonesty in the U.S. higher education system and that of their home country.

Week 6 September 28

Lecture: Academic Life (Guest Speaker(s))

- Study Skills (Academic Success Center)
- Writing Tips (Writing Center)
- Any leftover points or questions from Higher Education in US lecture (week 4)

Learning Objectives: By the end of the lecture, students will be able to describe one tip they intend to use to improve their studying and their writing.

Recitation Session:

- Answer any questions from lecture
- Library Tour

Learning Objectives: Students will be able to use the library computer terminals to search the library database using search tools and flexible vocabulary to retrieve books and articles relevant

to their search topic. Students will be able to check out a resource from the library. Students will be able to point out where to go for research assistance in the library.

Week 7 October 5

Lecture: Culture Shock and Cultural Differences (ISSO Teaching Assistants)

- Four Phases of Cultural Adjustment (Culture Shock)
 - Honeymoon/Excitement/Euphoria
 - Negotiation/Withdrawal/Irritability/Hostility
 - Adjustment/Humor
 - Enthusiasm/Mastery/Adaptation/Home
- Intercultural Research: Hall
 - High/Low Context Communication
 - Monochromatic time; Polychromatic time
- Intercultural Research: Hofstede: Cultural Dimensions
 - Power Distance
 - Individualism/Collectivism
 - Masculinity/Gender Equality
 - Uncertainty Avoidance
 - Long-term/Short-term Orientation

Learning Objectives: Students will be able to identify the four phases of cultural adjustment.

Recitation Session:

- Answer any questions from the lecture
- IFYE Coordinators will discuss with students their own experience in adjusting to college life, American culture, Iowa, and Iowa State University.
- Students will role-play activities to model different situations from college life, Iowa, Iowa State University.

Learning Objectives: Students will be able to identify (to themselves) one or more ways in which they are experiencing culture shock.

Week 8 October 12

Lecture: Money Management & Banking in US (Guest Speaker)

- Managing Money (Graduate student)
- Avoiding scams (Graduate student)
- U Bill Overview (Accounts Receivable)
- Banking Overview (US Bank)

Learning Objectives: Students will be able to explain one way they can manage their money better. Students will be able to explain how they pay their U Bill and how to get a bank account.

Recitation Session:

- Answer any questions from the lecture
- IFYE Coordinators will walk students through how to develop a monthly/weekly budget for managing their money
- Students will be asked to complete a budget worksheet

Learning Objectives: Students will be able to create a budget for managing their money using a template.

Week 9 October 19

Lecture: Interacting with American Culture (ISSO Course Coordinator & Teaching Assistants)

- US Traditions (holidays, sports, Black Friday, tipping in restaurants, wearing shoes indoors, etc.)
- Typical American values
 - Achievement & Materialism
 - Directness, Equality, Future Orientation
 - Individualism, Informality, Goodness of Humanity
 - Privacy, Rule of Law, Social Relationships, Time Orientation
- Reflection assignment: Using the information about American values presented in the lecture and the intercultural research presented in week 6's lecture (high/low context, time orientation, and cultural dimensions presented), students will write a two- to three-page reflection paper comparing and contrasting their own cultural values with US values and how each benefits the respective culture. Students will hand in these papers in their recitation sections.

Learning Objectives: Students will be able to recognize and differentiate between values from US and from other countries.

Recitation Session:

- Answer any questions from the lecture or about the reflection paper
- IFYE Coordinators lead discussion of US traditions and values by pointing out their favorite US traditions.
- Students will be given the assignment to have at least a five-minute conversation with an American about his/her cultural values. The group will brainstorm a list of possible questions to use.

Learning Objectives: Students will be able to analyze some of the different cultural values from US and their own culture and speculate as to why the respective cultures exhibit those values.

Week 10 October 26

Lecture: Racism and Microaggressions in American Culture (Guest Speaker and Student Panelists)

- Provide students with some perspectives about issues of racism and microaggressions in the US for American multicultural and international students (Social Justice guest speaker and then student panelists who will talk about their experiences with racism and microaggressions).

Learning Objectives: Students will be able to explain some of the issues that US multicultural students and international students may face on campus and in the community.

Recitation Session:

- Answer any questions from the lecture
- IFYE Coordinators discuss their interactions with different races and racism.
Coordinators will have some case studies to discuss if needed.

Learning Objectives: Each student will be able to connect his or her experience with those of the panelists through a similar or contrasting life event.

Week 11 November 2

Lecture: Immigration Benefits and Employment in the U.S. (ISSO Advisor)

- F-1/J-1 Status Highlights (ISSO)
- CPT/OPT (ISSO)

Learning Objectives: Students will be able to describe the number of credit hours necessary to remain in status and two common ways students can fall out of status. Students will be able to describe what CPT and OPT is.

Recitation Session:

- Answer any questions from the lecture
- Visit ISSO, take F-1 or J-1 quiz and be eligible for a prize!
- Begin discussing potential group projects

Learning Objectives: Students will be able to explain a benefit of their student immigration status (ability to have more time to complete their academic program, ability to transfer to another school, ability to travel outside the US and return to their legal status, ability to work on and off campus).

Week 12 November 9

Lecture: Healthy Lifestyles (Guest Speaker)

- Tips on staying healthy in college (Thielen Health Center)
- Mental Health (Counseling Center)
- Active Lifestyle (Recreation Services)

Learning Objectives: Students will be able explain to other students three tips for being healthier in college (such as getting enough sleep, eating healthy, getting involved on campus and making friends, and getting exercise, maybe even through a Rec Services trip)

Recitation Session:

- Answer any questions from the lecture
- Go to the gym and exercise for at least 30 minutes either individually or in some sort of team activity.

Learning Objectives: Students will be able to identify different types of exercises available in an ISU gym (wall climbing, free weights, machine weights, exercise classes, basketball, running on the track, etc.)

Week 13 November 16

Lecture: Career Development (Guest Speaker)

- Maximizing College Years for Marketability (Career Services)
- Resume Building (Career Services)

- Use of College Fairs (Career Services)

Learning Objectives: Students will be able to list four tips for preparing themselves better for finding student internships or jobs after graduation.

Recitation Session:

- Answer any questions from the lecture
- Discuss tips for having better job interviews
- Discuss what sort of activities are helpful for resume building
- Decide on a group project
- Student will write a one-page reflection paper on how they can enhance their resume (become a leader in a student organization, get a campus job in their major, engage in volunteer/service projects, etc.)

Learning Objectives: Students will have developed a general strategy for (leadership, work, service, etc.) enhancing their marketability.

Week 14 (Thanksgiving)

Lecture:

- No lecture.

Learning Objectives:

Recitation Session:

- Take survey post-tests

Learning Objectives:

Week 15 November 30

Lecture: Ask an Upperclassman (ISSO Teaching Assistants & Student Panelists)

- Short Presentations and Question and Answer student panel of domestic and international students about their experiences at Iowa State

Learning Objectives: Students will be able to describe three “take aways” from the panelists about how to be successful at Iowa State.

Recitation Session:

- Answer any questions from the lecture
- IFYE Coordinators give personal stories and stories of friends of how they have been successful in college—in class, in getting to know Americans, making friends, making their money, get past depression, find jobs, etc.
- In groups of 3 to 4, students will interview one American and one international student about being successful at Iowa State.

Learning Objectives: Students can identify three areas of their lives they want to improve (such as have more friends, get into a relationship, develop a new hobby, speak conversational English, etc.)

Week 16 December 7

Lecture:

- No lecture

Learning Objectives:

Recitation Session:

- On their own time, students take post-test Thriving Quotient and Global Perspective Inventory.

Learning Objectives: Students will be able to replicate a variety of relaxation techniques for dealing with stress.

Week 17 December 14

Lecture: Final Project Presentations

- Group presentations on what they have learned from this course. Can be a
 - Skit
 - Video
 - Original song
 - Painting or drawing
 - Some other type of performance art

Learning Objectives: Students will synthesize their learning into a presentation for the class.

Recitation Session:

- Will not meet