

North Carolina Agricultural and Technical State University
Aggie Digital Collections and Scholarship

Dissertations

Electronic Theses and Dissertations

2011

Retaining International College Students: Promoting Proactive Institutional Support Services For Successful Adjustment

Craig Cameron Curty
North Carolina Agricultural and Technical State University

Follow this and additional works at: <https://digital.library.ncat.edu/dissertations>

Recommended Citation

Curty, Craig Cameron, "Retaining International College Students: Promoting Proactive Institutional Support Services For Successful Adjustment" (2011). *Dissertations*. 42.
<https://digital.library.ncat.edu/dissertations/42>

This Dissertation is brought to you for free and open access by the Electronic Theses and Dissertations at Aggie Digital Collections and Scholarship. It has been accepted for inclusion in Dissertations by an authorized administrator of Aggie Digital Collections and Scholarship. For more information, please contact iyanna@ncat.edu.

Retaining International College Students: Promoting
Proactive Institutional Support Services
for Successful Adjustment
Craig Cameron Curty
North Carolina A&T State University

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Department: Leadership Studies

Major: Leadership Studies

Major Professor: Dr. Daniel M. Miller

Greensboro, North Carolina

2011

School of Graduate Studies
North Carolina Agricultural and Technical State University

This is to certify that the Doctoral Dissertation of

Craig Cameron Curty

has met the dissertation requirements of
North Carolina Agricultural and Technical State University

Greensboro, North Carolina
2011

Approved by:

Dr. Daniel M. Miller
Chair and Major Professor

Dr. William A. Gentry
Committee Member

Dr. Susan A. Linker
Committee Member

Dr. Dorothy D. Leflore
Committee Member

Dr. Abul Pitre
Department Chairperson

Dr. Sanjiv Sarin
Associate Vice Chancellor for Research
Dean of Graduate Studies

Copyright by
CRAIG CAMERON CURTY
2011

Dedication

This dissertation is dedicated to my wife Wendy, my children Grace, Alli, and Connor, my mother Joan, and to all the people who delivered me to this point in my life.

Biographical Sketch

Mr. Curty was born in Staten Island, NY. He received his master's degree in May 2000, from The University of North Carolina at Greensboro, and his undergraduate degree in May 1993, from High Point University. In 2005, he was awarded the National College Learning Center Association Brenda Pfaehler Professional Development Grant for "ESL Excursions Program." Over the past sixteen years, he has worked in the Academic Services Center at High Point University serving in various capacities.

Acknowledgments

I would like to thank my family especially my wife, Wendy, for her love, patience, sacrifice, and understanding as I moved through the process of obtaining the Ph.D. Also, my children who missed spending some quality time with Dad as I completed the degree requirements. Dr. Lisa Carnell deserves an acknowledgement for empowering me as I worked through the data analysis as well as believing in my ability to complete the Ph.D. Dr. Gregg Hundt is a good friend who provided valuable insight into the dissertation process as well as providing motivation for me to complete the degree. Dr. Daniel Miller, my chair, always believed in what I was attempting to accomplish and his support and advice were invaluable. Thank you for sticking with me all these years! Dr. Bill Gentry is always accommodating and a great advocate for my research. Taking his classes provided great benefits to me as I moved through the various phases of writing and analysis. Dr. Susan Linker is a great professor and a wonderful friend who always took the time to read my iterations and provide wonderful feedback. Completing a dissertation outline was painstaking, and it provided clarity for the organization of my literature review. Finally, I appreciate Dr. Dorothy Leflore taking the time to serve on my committee.

Table of Contents

List of Figures	viii
List of Tables	ix
Abstract	2
CHAPTER 1. Introduction.....	3
Purpose of the Study	14
Significance of the Study	15
Definitions.....	19
CHAPTER 2. Review of the Literature	22
Summary	95
CHAPTER 3. Methodology	97
Introduction.....	97
Hypotheses	99
Conceptualizing a Moderator Framework	101
Assumptions.....	102
Population	103
Sample Criteria	103
Sampling Strategy	103
Variables	104
Demographic variables	105
Institutional variables.....	105
Academic support variables.....	105
Student use of services.....	105

Student academic outcomes	106
Data Collection	106
Instrument	106
Student Adjustment to College Questionnaire.....	107
Administration of the survey	108
Data Handling	109
Data Analysis	109
Limitations	112
CHAPTER 4. Analysis and Results.....	114
Descriptive Statistics.....	115
Sampling Bias	117
Hypothesis 1.....	117
Hypothesis 2.....	118
Hypothesis 3.....	119
Hypothesis 4.....	121
Hypotheses 5-8.....	122
CHAPTER 5. Discussion.....	123
Limitations	124
Recommendations.....	124
Future Research	125
Implications for International Students and ISOs.....	126
References.....	130
Appendix.....	152

List of Figures

1.	Expected positive correlation for Hypothesis 1	99
2.	Expected positive correlation for Hypothesis 2	99
3.	Expected positive correlation for Hypothesis 3	99
4.	Expected positive correlation for Hypothesis 4	100
5.	Expected relationship between academic involvement and GPA moderated by ISO.....	101
6.	Expected relationship between academic involvement and retention moderated by ISO	101
7.	Expected relationship between extracurricular involvement and GPA moderated by ISO	101
8.	Expected relationship between extracurricular involvement and retention moderated by ISO	101

List of Tables

1.	Demographic Descriptive Statistics.....	115
2.	Pearson’s Correlation of Study Variables	116
3.	Aggregate Academic Involvement and GPA.....	118
4.	Disaggregate Academic Involvement and GPA	119
5.	Academic Involvement and Retention.....	120
6.	Aggregate Extracurricular Involvement and GPA.....	121
7.	Disaggregate Academic Involvement and GPA	121
8.	Extracurricular Involvement and Retention.....	122

Abstract

This study investigates whether institutions with centralized international student support offices have higher retention rates and higher overall grade point averages for undergraduate F1 visa status non-native English speaking international students. Modeled on Astin's (1984) Student Involvement Theory, the research study proposes and tests a model of undergraduate F1 visa status non-native English speaking international student frequency of involvement and whether an international student office (ISO) moderates this relationship by increasing undergraduate F1 visa status non-native English speaking international student frequency of involvement leading to positive academic outcomes, specifically focusing on overall grade point average (GPA) and retention. If this central study provides evidence of institutions with ISOs positively relating student outcomes, then in ethical terms and as a matter of good business, institutions of higher learning should consider creating or sustaining ISOs to promote international student academic success and personal development.

Available in some institutions, a centralized, multipurpose international student office offers additional support for international students. From the institutional perspective, benefits of such an office promote favorable institutional diversity, a well-rounded education preparing all students for matriculation into an increasingly globally interconnected society along with improving institutional financial resources because most international students (65%) are self-financed through personal or family funds (Lin & Yi, 1997). From the student stakeholder perspective, benefits include buy-in to campus culture, norms, and classroom expectations and behaviors. Unfortunately, some American institutions of higher learning do not offer such offices, leaving the potential for international student disconnects leading to a potentially unsatisfactory educational experience in the United States.

CHAPTER 1

Introduction

This study investigated whether institutions with centralized international student support offices have higher retention rates and higher overall GPA's for undergraduate F1 visa status non-native English speaking international students. The questions guiding this study are, "do institutions that have an international student office (ISO) have higher levels of international student involvement in academic support services and participation in extracurricular activities?" "If so, does this increased involvement result in higher overall GPA's and an increase in retention rates?" International students are a critical component of the higher education environment contributing to diversity and financial resources for higher education institutions. International students encounter issues from the institutional and student perspectives. Current research on international students' experience touches on issues of institutional diversity, cultural challenges such as language difficulties and dietary changes, as well as financial issues from the institutional and international student perspective.

Using the theoretical framework of Astin's (1984) Student Involvement Theory, this study extended the literature by examining the International Student Office (ISO) relationship with undergraduate F1 visa status non-native English speaking international student involvement and academic outcomes. The researcher wanted to understand whether an ISO moderates the relationship between the predictor variable of international student frequency of involvement and the outcome variables of GPA and higher retention rates. ISO was selected as the moderating variable because the researcher believed it to have a relationship between frequency of involvement and international student GPA and retention rates. Involvement, in the context of this research, was measured as undergraduate F1 visa status non-native speaking English

international student frequency using academic support services and participating in extracurricular activities. Selection of research variables used in this study support Astin's view of incorporating different facets of involvement into creating a complete student. Astin defines student involvement as "the amount of physical and psychological energy that the student devotes to the academic experience" (Astin, 1984, p. 297). No study to date has used an ISO to examine whether it increases undergraduate F1 visa status non-native English speaking international student involvement in using academic support services and extracurricular activities leading to positive student outcomes.

Previous research on international students indicates international students encounter various difficulties when matriculating into the U.S. higher education system. Complications arise because international students have to transition and understand U.S. culture while simultaneously adapting and comprehending college institutional culture and social intricacies. Kuh and Whitt (1988) describe higher education culture as having four purposes in a college environment: it conveys a sense of identity; facilitates commitment to an entity other than oneself; enhances stability of a group's social system; and provides a sense-making device guiding and shaping behavior. Identifying these purposes can prepare international students' understanding when a cultural conflict arises and improve life satisfaction. Interconnected international student cultural issues and perspectives originate from socialization (Hayes & Lin, 1994); acculturation (Kagan & Cohen, 1990); culture shock (Oberg, 1960; Westwood & Barker, 1990); cultural distance (Kuh & Love, 2000); acculturative stressors (Berry, 1997; Church, 1982; Ying, 2005; Ying & Han, 2006); Eastern and Western cultural views on education (Rubenstein, 2006); and social integration (Berger, 1997, Braxton & McClendon, 2002; Thomas, 2000; Tinto, 1975, 1982, 1993).

International students have attended U.S. institutions of higher learning for many years. American higher education is the fifth largest service-sector export in the U.S. (Nikias, 2008). A survey of colleges found that 87% of U.S. international student recruitment focuses on Asian nations. As a result, almost half (49%) of international students who come to the U.S. are from Asia (Zogby, 2009). The top five participating nations are: India, Korea, China, Japan, and Taiwan (Ying & Han, 2006). A continued recovery of international students sojourning to the U.S. for post-secondary study is occurring after setbacks caused by U.S. policy changes toward international students in reaction to the September 11, 2001 terrorist attacks. International students in the U.S. are a small but important contingent of the overall student numbers attending colleges and universities, consisting of 690,923 students or 3.5% (in 2009) of total enrollment in U.S. higher education (Institute for International Education, 2010b). While 3.5% may seem a low number, international students, as a group, are a vital cog in the higher education machine and related various levels of the higher education hierarchy. Critical to the success of higher education institutions from a financial standpoint, international students also bring in diversity, and indirectly prepare students to compete in a rapidly globalized society. Undergraduate international students are typically full-pay in terms of tuition and housing unless they receive institutional funding because U.S. government financial aid is unavailable. International students can help an institution's bottom line and are invaluable in promoting cultural competency and increasing diversity on college campuses.

The aftermath of 9/11 resulted in a reduction of international students as a result of fallout from policies impacting the ability of international students to study in the United States. International students flocked to friendlier countries for study because of the United States' increased restrictions and red tape encountered during the student visa application process

(Knight, 2006). During the 2003-04 academic year, the Institute of International Education reported a 2.4% drop in U.S. international student enrollment, the first absolute decline in international students since 1971-72. New U.S. government post-9/11 visa policies termed “Visas Mantis” were created. Visas Mantis review was another level of security clearance for international students attempting to obtain a U.S. student visa for study in roughly 200 scientific fields. This added layer of security was blamed for tarnishing the United States’ reputation as a welcoming place for international students to study. Visas Mantis caused increased visa delays and outright rejections of international student requests to study in the U.S. While Visas Mantis was an important cause of a precipitous decline in the enrollment of international students post-9/11, other mitigating circumstances contributed to lower numbers of international students coming to U.S. colleges and universities. For example, other countries’ educational systems including China and Singapore began recruiting students who may previously have thought about studying in the U.S. to instead remain home and continue their educational pursuits. Another contributing factor for lower international student numbers is the increasing cost of tuition and fees at U.S. institutions, especially when compared with other education-exporting countries including, but not limited to, Australia and New Zealand (Naidoo, 2007).

Recent statistics (2007) show a recovery of international students studying in the U.S. International student enrollment increased 7% in American institutions of higher education to 623,805, which exceeds the all-time high increase of 6%. From 2005 to 2006, the new international student population increased by 10%, and provided an estimated \$15.5 billion to the American economy (Institute for International Education, 2008). However, according to the 2010 Open Doors Report on International Educational Exchange, that includes data from the 2009/10 academic year, the new international student population increased only 1.3% and the overall

international student population increased 2.9% to 690,923. A portion of the decreasing climb in new international students can be attributed to the impact of global economic slowdown. Some international educators are concerned about future decreasing international student enrollments. With the worldwide economic crisis and depleted savings being mitigating factors, a fear of depleted family savings could leave international students unable to afford American college tuition rates.

The term *international student* has multiple meanings. For the purpose of this research, Byrd's (1991) definition is used as it most closely resembles participant criterion in this study. International students are defined as "students on non-immigrant visas . . . these students maintain their citizenship and residency in countries other than the United States and do not plan to become either permanent residents or citizens of the United States" (Byrd, 1991, p. 1).

The literature points to cultural competency as a major challenge facing international students. Cultural competence is defined as "the ability to understand and appreciate differences and to respond to people of all cultures in a way that values their worth, respects their beliefs and practices, and builds communication and relationships" (Carter, Bishop, & Kravits, 2011, p. 115). Cross, Bazron, Dennis, and Isaacs (1989) define cultural competence as "acceptance and respect for difference, continuing self-assessment regarding culture, careful attention to the dynamics of difference, continuous expansion of cultural knowledge and resources, and a variety of adaptations to service models" (p. 17). International students attending American institutions of higher learning, especially those from East Asian countries, have a difficult time making the transition academically and socially (Ying & Han, 2006). Culture shock, for example, is a significant issue for international students. Also, because East Asian students live a long distance

from home, visits to their home country and families are typically months or even years apart, potentially leading to homesickness (Jackson, 2004).

International student researchers agree (Poyrazil & Maraj, 2007; Byrd, 1991; Lee, 2007; Barrett & Huba, 1994) that language barriers tend to be the most difficult roadblock for international students to overcome. A good score on the Test of English as a Foreign Language (TOEFL) does not always translate into functional literacy in a college learning environment. Communication in English occurs at a more rapid pace on a college campus than most international students have previously experienced. The level of language understanding for social interaction is different from what is required for academic study. International students have to read and write academic English, listen to lecture and take notes, participate in class discussions, and rely on vocabulary beyond basic words used in everyday life (Byrd, 1991). Language and other previously mentioned cultural challenges can lead to social and academic isolation (Jackson, 2004).

Lee and Rice (2007) raise additional problems encountered by international students. As previously stated, entrance into the U.S. to pursue an education, especially post 9/11 presents a challenge. Fingerprinting, lengthy regulations, and complicated visa processes dissuade many students from applying to American colleges and universities. Upon arrival, social and community factors affect international students' experiences and are critical determinants in persistence. Areas where accommodations often fall short and can negatively impact adjustment include: admission, registration, residence life, and dining services. Simple issues such as food and diet can create barriers to developing significant social relationships. Topics of conversations involving discussion of sexual openness, perceptions of time, and gender all are areas in which international students might find themselves uncomfortable. The push for globalization, without

attention to cultural difference and competence, can encourage a narrow view of international students as purely a source of revenue that potentially leads to deemphasizing cross-cultural and academic experiences.

Research suggests that the presence of international students is not only beneficial from the institutional standpoint, but also to domestic students. Westwood, Lawrance, and McBlane (1986) found five residual benefits for domestic students in working with international students. First, working with international students increased domestic students' cultural awareness and sensitivity. Other domestic student benefits included opportunities to establish friendships and international connections along with potential employment opportunities, creating interest in their own study abroad experience, and travel to other countries. Working with international students is cross-cultural opportunity that could also potentially influence a career track. Finally, the domestic students were able to create a spirit of goodwill and service to the global community (Westwood & Barker, 1990). Lee and Rice (2007) enumerate and provide details about positive contributions of international students on American college campuses. International students provide different classroom perspectives, and increase awareness and appreciation for other countries and cultures. An additional benefit for the U.S. is educating many foreign students who return to their native countries and take leadership positions.

Canada, Great Britain, and Australia are the three main U.S. competitors for international college students, and each competitor is expecting 2009 reports to show a rise in college international student enrollment (Fischer, 2009). Canada is seeing increases in their international student population. Most Canadian universities prioritize at the top of their mission internationalization of its campuses. As of 2009, Canadian universities reported large increases in international student enrollments attributed to aggressive recruiting strategies, building

relationships in foreign countries, and strong institutional student support services. Examples of Canadian university increases in international student enrollments included University of Alberta which reported a 45% increase in new international students; University of Prince Edward Island saw a 32% increase in its international student population; and McGill University increased 17% in their new international student population. Canada's growing reputation as a bastion of higher education helps recruitment of international students and is less expensive when compared to tuition costs in the U.S. (Birchard, 2009). Offering international students opportunities not offered at U.S. institutions, Canada allows international students benefits such as working an off-campus job or remaining in Canada and working after graduation (Fischer, 2009). Restrictions imposed on international students in the U.S. include maintaining full-time status while enrolled or student visas are revoked. Also, as opposed to Canada, international students have limited or no access to U.S. welfare benefits, loans, and scholarships (Lin & Yi, 1997).

International students must be proficient in reading and writing academic English; listening to lectures and taking notes and developing vocabulary beyond everyday usage. Some institutions take extreme measures, admitting international students to maintain or increase enrollments without providing appropriate international student instruction to help functionality in a college classroom (Byrd, 1991). Sometimes struggling institutions seek more international students to fill the void created by a decrease in domestic students. For example, Japanese companies have bought or heavily subsidized colleges for the purpose of bringing several Japanese students to campuses for a U.S. college education. Frequently, institutions of higher learning seek out international students for financial and educational profit (Byrd, 1991). The University of California at Berkeley tripled the number of freshman international students, and in 2009 planned to enroll additional international students to increase tuition revenue due to an \$11

billion California State Budget deficit leading to less state aid for California's colleges and universities (Keller, 2008).

College administrators are responsible for providing resources and activities for the student body. Braxton and Mundy (2001) recommend that colleges and universities encourage and foster development of beneficial support systems for students. "Faculty, staff, academic advisors, and administrators should attend to the holistic development of the student—both academic and co-curricular—by promoting growth and learning not only in the classroom but in the university community as well" (p. 92).

Alexander, Workney, Klein, and Miller (1976) classify international students as a high-risk group. When non-native English speaking international students are placed into classes for which they are not prepared, three difficulties arise from the institutional perspective. First, with a lack of understanding and familiarity in communicating in a foreign language, the international student may not receive the benefit of a proper education. The classroom teacher is placed in the nearly impossible situation of developing student skills without adequate resources and, in most instances, without sufficient training. Finally, an international student who is unable to communicate with domestic students in class makes group projects, discussions, and other classroom interactions difficult for faculty and students (Byrd, 1991).

Though institutional programs support international students in their transitions, various challenges are apparent. A consideration is finding the right fit between students and their institution. First, available services capable of meeting various student needs are very important. The college or university must employ qualified staff to handle and understand the immigration law complexities to ensure students remain in legal status. Advising and counseling must be provided to assist international students when dealing with culture shock. Second, a good fit

between the community and international students is also important to international student retention. International students tend to be more visible in small cities and smaller towns. Most international students are from large cities and can have a difficult time in small college towns unless the institutions have extracurricular activities to supplement their educational program. If the institution can make connections with community leaders and organizations to welcome them, students are likely to remain at the institution. Also, when students can sooner “feel at home,” institutional persistence increases through the initial pains of culture shock. Suitcase campuses are very difficult ecological environments for international students because domestic students tend to travel home on the weekends and over scheduled breaks while international students are left alone due to distance and lack of home and familial access (Byrd, 1991).

International students sometimes attend a U.S. college or university to improve English language communication skills, not to earn a college degree (Byrd, 1991). Social concern is one of the biggest difficulties international students face upon arrival on U.S. college campuses because for most international students lack of English language proficiency complicates adjustment to the loss of familiar social support, such as family and friends from their own culture and causes loneliness and isolation (Hayes & Lin, 1994). Orientation programs are very important to students’ college transitions and reinforce institutional importance placed on students. From the institutional perspective, validation builds goal commitment and introduces students to social support networks. Programs grouping students facilitate social adjustment and learning by nurturing consensus between students and institution regarding goals. Social adjustment and learning ultimately promote student retention. Designing international student orientation programs should improve student involvement, motivation, and academic self-confidence. Research (Lin & Yi, 1997; Pascarella, Terenzini, & Wolfe, 1986) suggests

orientation programs result in increased student institutional commitment and increased student engagement. Other examples of these programs include: faculty-student mentoring, peer tutoring, academic counseling, and advising programs (Byrd, 1991).

When college students matriculate into the job market and join the roles of productive members of society they will encounter diverse populations such as co-workers, supervisors, and even CEOs. Understanding that people are different, why culture conflicts occur, and properly handling cultural conflict can provide a workplace advantage. Reflection is necessary, and all students need to understand their own prejudices and stereotypical beliefs. Then international students challenge themselves to move past these internal issues by working with diverse colleagues, clients, etc. As a country, U.S. citizens, especially younger generations, are beginning to understand that U.S. society needs to move from a Ptolemaic worldview where the U.S. is the center of the universe to a Copernican one, where Americans are one cosmic body in a much larger system (Nikias, 2008).

Other benefits of embracing international students on U.S. campuses are future potential outcomes for students and their respective countries. When international students remain in the U.S. after graduation, they provide “brain gain” (Nikias, 2008, p. A44), helping to benefit American economic growth. Brain gain occurs when above average intelligent international students remain in the U.S. to work on a long-term basis, providing a positive contribution to American society. In the more frequent case of international students returning home after graduation, these students generally have positive feelings about their study abroad experience potentially leading to the building of business partnerships with American companies (Nikias, 2008).

Literature pertaining to international student experiences explores various topics such as adjustment, culture shock, institutional culture, acculturation, socialization, language barriers, distance from home, cultural distance, diet, varying classroom expectations and norms, coping, assimilation, etc. The literature provides insight into international students' needs and desires in order to make time spent in the U.S. beneficial on a cognitive level and expand their socio-cultural knowledge base. For example, international services providing mentoring, tutoring, expertise with immigration issues, counseling, and networking opportunities with domestic students positively relate to international student outcomes. Overall, the research literature is scarce on educational benefits provided by International Student Offices and this study proposes to fill gaps in the literature by measuring the relationship of ISOs on undergraduate F1 visa status non-native English speaking international student frequency of involvement and whether there is a relationship to positive student outcomes.

Purpose of the Study

This study was guided by evidence already introduced and its importance to numerous stakeholders, and attempted a contribution to the international student research knowledge base. The overall goal of this study was calling on institutions enrolling international students to provide adequate resources to help this population understand and overcome issues to improve their academic and social integration. At a minimum, these institutions should have an on-campus International Student Office staffed by professionals from the field of international education. Offices providing international student support services create an avenue for international students to become actively involved in their own transition, acculturation, adjustment, and academic success (Byrd, 1991). The design examined whether participant frequency of involvement related to positive academic outcomes and whether the presence of a

multipurpose office including a division of international student support services related to frequency of undergraduate F1 visa status international non-native English speaking student involvement in selected academic support programs and extracurricular activities leading to positive international student academic outcomes in overall GPA and retention rates. A comparison will be made between undergraduate F1 visa status international non-native English speaking students attending institutions with an international student office and those undergraduate F1 visa status international non-native English speaking students who attend institutions without an international student office to measure whether an ISO had a positive relationship to undergraduate international student frequency of involvement in academic support programs and participation in extracurricular activities leading to positive student outcomes.

Significance of the Study

International students are a critical component within higher education environments, providing dynamics such as institutional diversity and financial resources. An asset, dependent upon college choice, is accessibility to a centralized international student support office. Unfortunately, some U.S. institutions of higher learning do not offer such a support office. An office catering to international students provides an avenue to assist in transition, acculturation, adjustment, and academic success to obtain their ultimate goal whether it is graduation with a college degree from a U.S. institution of higher learning or improving their understanding of U.S. culture and English communications skills. Previous research from Ahuna and Mallinckrodt (1989) found ISOs can create networking opportunities for international students through support from co-nationals, international students from other countries, and domestic students. The significance of this study is whether an ISO moderates undergraduate F1 visa status non-native

English speaking international student frequency of involvement and the outcomes of overall international student GPA and retention rates. If the relationship is positive, this research could provide evidence as to why an ISO should be on every college and university campus regardless of institutional expense. A positive relationship could encourage administrative buy-in.

Administrators could recognize how ISOs provide support and increasing international student involvement to improve resources for international students and increase support for ISOs on campuses lacking such an office.

Within the literature, there are studies that focus on college student retention and retention of specific student populations. Over the past 40 years, research on student retention (Bean, 1985; Rhodes & Nevill, 2004; Spady, 1970; Tinto, 1975, 1982, 1993; Tierney, 1992, 2000) has focused on examining student dropout/persistence. The dropout rate has been reported by Akka (1967), and Babiker, Cox, and Miller (1980), as significantly higher for international students. However, there is a lack of research focusing on the topic of international student retention. A proactive example of a retention model for international students, the Student Initiated Retention Project, is a successful mentoring program where practitioners are creating progressive programs focusing on providing unique resources to multicultural and international students with the goal of improving their retention rates. However, more research is needed in this area (Maldonado, Rhoads, & Buenavista, 2005).

Research studies referring to retention and socio-cultural aspects relating success or failure of student outcomes in higher education are found throughout the literature. Focusing on traditional college students, studies also incorporate issues of multiculturalism, especially within predominantly white institutions, and with first generation immigrant populations. When proposed retention theories are not analyzed through different subgroups, institutional policies

and practices cannot be ascertained nor can they speak to differences among student groups. Rendon, Jalomo, and Nora (2000) explain the perspectives of students of color are important because without this perspective one can miss important details and distinctions regarding connections between student cultural realities and collegiate experiences. Many international students have similar issues to students of color, including discrimination, bias, understanding of and adjustment to host culture norms and values, etc. Some international students experience racism in the U.S. Racism and discrimination impedes international student desire for academic success and cultural adjustment. One intention of an ISO is providing many layers of support to international students in finding new host culture friends (Chen, Mallinckrodt, & Mobley, 2003).

Student involvement has many variables including academic work, participating in extracurricular activities, and interacting with faculty, other students, and other institutional employees. An ISO is an important addition to student involvement theory framework because Student Involvement Theory states, “the greater the student’s involvement in college, the greater will be the amount of student learning and personal development” (Astin, 1984, p. 307). Hypothetically speaking, if an international student utilizes an ISO, there should be an increase in international student involvement leading to positive academic outcomes.

Involvement theory also aligns the perspectives of student, administration, and institutional stakeholders. From the institutional perspective, all institutional policies and practices, academic and non-academic, can be assessed as to whether they increase or decrease student involvement. As Rendon (1994) states, “the culture of the academy must change to better meet the needs of today’s rich, diverse student population” (p. 34). While programs do cost money and use university resources, the money is generally well spent, and institutions may receive a return on investment through improved retention rates (Astin, 1984). From the

international student perspective, a study abroad experience is costly in terms of travel, tuition, and time away from family and friends. According to Zwingmann and Gunn (1983), the worst case scenario of student failure and dropping out can have “negative psychosocial, social, and economic consequences for the students, their families, and ultimately, the sending countries” (Westwood & Barker, 1990, p. 255).

College administrators should find value in this study. Astin’s (1993) research found student services typically account for between 3% and 8% of an institution’s educational and general budget expenditures. An ISO could provide manifold benefits to the institution and students at minimal cost compared to the consequences of not having such an office on campus. Findings from this study could lead to administrative recognition of the importance in increasing international student involvement and achievement. This could occur through promoting programs facilitating international student transition and fulfilling a newfound institutional mission based on internationalization. Appreciation of a global perspective is required for young minds to be productive, positive members of the global learned society. Responding to the dearth of research available on international college students in relation to academic support services and extracurricular activities, findings of this research could provide evidence of an ISO effect to participant frequency of involvement, and a positive relationship to student academic outcomes.

From an administrative stakeholder perspective, understanding relationships between student support services and student outcomes may help inform decision-makers about programming and allocation of resources by post-secondary institutions recruiting and enrolling international students. Literature on student support services, while not directly involving international students, shows how tutoring (Hedges & Majer, 1976; Maxwell, 1979, 1990; Woolley, 1976) and academic advising (Bean & Eaton, 2002; Braxton & Mundy, 2001; Glennen

& Baxley, 1985; Pascarella & Terenzini, 1991) can help international students interact with members of the campus community to achieve academic and socialization goals.

This study is built on existing research within the areas of college student retention and transitional issues pertaining to social adjustment and acculturation and attempts to advance policy and practice focusing on international student support services and frequency of involvement in using these resources. It examines the lack of international student participation in college offerings and how an ISO can funnel international students into obtaining support services that otherwise might not be utilized because of lack of awareness on the part of college administrators.

Definitions

Academic Services: student support services such as tutoring, ESL tutoring, Supplemental Instruction (SI), and disability services among others. It is an office whose mission is to serve students to enhance their academic success. This office is typically administered by professional faculty and/or staff and employs students as tutors, mentors, SI leaders, office assistants, etc.

International Students: students who come to the United States from another country to study at a college or university.

Non-Native English International Students: international students whose first language is not English.

Retention: the act of maintaining enrollment at a higher education institution until graduation.

International Student Office (ISO): a place for international students to seek specialized information from professional staff. The primary purpose of this office is to advocate for international students and help in their transition to college and adjustment to American college life.

Support Services: resources offered by an institution to assist students with their mental, physical, academic, and emotional well-being while enrolled.

F1 Student Visa: a nonimmigrant visa for people who desire academic study in the U.S. and who intend to return to their native country upon completion of degree requirements.

Dropout: student who leaves an institution before completing degree requirements.

Extracurricular Activities: typically, institution sponsored programs for students to increase on-campus involvement and provide opportunities for students to work together in an array of non-academic pursuits.

Club: student group that focuses on a particular interest within the student body. Membership is typically voluntary. Examples of clubs include: International Student Club, Outdoor Activities Club, Student Union, and Spanish Club.

Excursion: off-campus trip for international students to learn about American culture and customs and to promote interaction among international students, domestic students, and the community.

Grade Point Average: a weighted average of grades received in courses completed by a student. This average changes every semester with the submission of final grades until a cumulative grade point average is determined at the end of the semester or upon graduation.

Academic Advising: guidance from faculty or professional staff to assist students in selecting courses, adding or dropping a class, and ensuring the student makes progress toward graduation.

Study Group: an independently formed group of students who study together for a particular course or purpose with goals of understanding the academic material covered, improving a skill set, and receiving a better grade in the course.

Sojourner: person living in a foreign country for an extended period of time for the purposes of education or employment.

Domestic students: people living in their native country who interact with international students.

Culture Shock: a process where a person has varying degrees of difficulty in adapting to a new environment.

IFEST: an annual celebration of diversity at The University of North Carolina at Greensboro promoting cultural awareness.

The following section presents the relevant literature informing the theoretical framework and basis of this study.

CHAPTER 2

Review of the Literature

An examination of international student challenges in the sojourn experience and critical international student challenges including cultural adjustment, culture shock, stressors, English language concerns, cultural distance, social integration, and promoting international student acculturation is reviewed. Astin's (1984) Student Involvement Theory serves as the theoretical framework of this research study. This study seeks to determine whether undergraduate F1 visa status non-native English speaking international student frequency of involvement is related to positive academic outcomes. It also explores whether the presence of a multipurpose centralized office including a division of international student support services is related to frequency of undergraduate F1 visa status international non-native English speaking student involvement in selected academic support programs and extracurricular activities leading to positive international student academic outcomes.

Vast research exists over the last 50 years pertaining to adjustment (French, Rodgers, & Cobb, 1974; Anderson, 1994; and Tucker, 1998, 1999), cultural adjustment (Kagan & Cohen, 1990; Lysgaard, 1955; Gullahorn & Gullahorn, 1963; Cushner & Trifonvitch, 1989; Lin & Yi, 1997; Bochner, McLeod, & Lin, 1977; and Hallowell, 1955), acculturation (Gordon, 1978; Garcia & Lega, 1979; and Ying & Han, 2006), and culture shock (Oberg, 1960; Westwood & Barker, 1990), encountered by international college students studying in the U.S. A major challenge facing college administrators is successfully preparing international students for adjustment experiences in the host and campus culture. Successful international student adjustment is a primary mission of campus ISOs, along with promoting diverse and open cultural competencies to the overall student body, faculty, and administration. A diverse, open campus

increases possibilities of developing friendships with others who might not share either visible (e.g., skin tone, nationality) or invisible (e.g., norms, values) characteristics (Carter et al., 2011). This urgent issue leads to upper-level administrators taking action at higher education institutions. College and university presidents, for example, are emphasizing the importance of internationalizing their campuses and curricula. The reasons for this push are two-fold. First, is awareness that the U.S. cannot be economically or politically viable this century if its citizens do not understand how forces beyond U.S. borders affect their careers and livelihood. Second, is an awareness of how individuals can be influenced by cultural backgrounds given increasing U.S. population diversity and global interconnectedness through improvements in technology and transportation. Improving adjustment is a key component in international student willingness to use ISO resources and other student support services. College administrators must create innovative strategies bridging the existing gulf between international students and institutional culture and norms (Byrd, 1991).

A major international student research focus is adjustment and more specifically cultural adjustment. French, Rodgers, and Cobb (1974) define adjustment as “the goodness of fit between the characteristics of the person and the properties of his environment” (p. 316). Anderson (1994) defines adjustment as “a dynamic and interactive process that takes place between the person and the environment, and is directed towards an achievement of fit between the two” (p. 307). Frequently cited research regarding cultural adjustment literature includes Lysgaard’s (1955) u-shape theory; Gullahorn and Gullahorn’s (1963) w-curve theory expanding on Lysgaard’s research; Cushner and Trifonovitch’s (1989) stages of cultural adjustment; and Lin and Yi’s (1997) research on the four stages of facilitating Asian student adjustment. Culture shock, a term coined by Oberg (1960) is a negative consequence of adjustment faced by

international students. Culture shock occurs when individuals “are placed under what is to them intolerable stress by the failure of the system to accommodate the satisfaction of their needs” (Spradley & Phillips, 1972, p. 518).

Cultural adjustment does not solely focus on the field of international students, and can provide valuable insight for international student researchers. For example, Tucker (1999) examined student transition between high school and college. His purpose was to understand what makes a transition successful or difficult. This study compared themes of academic integration and social integration from Tinto’s (1987) model with the themes of vision and sense of community extracted from a previous Tucker (1998) ethnographic study. Tucker’s more recent study sought to understand what makes student transition difficult or easy and his research found substantial Vision and Sense of Community themes. Vision is more than just career goals; Vision is used to depict images of students’ future. College students with concrete ideas of future goals upon graduation have smoother transitions. Possessing Vision helps students to persist through difficult circumstances and endure until completing their transition. Lacking Vision finds students distraught and unhappy placing blame for their rocky transition on themselves and administrators. Sense of Community examples include peer group relationships, living arrangements, and feelings generated by one’s physical surroundings. When Sense of Community factors are combined, students with a high sense of belonging in their environment transitioned more easily. Vision and Sense of Community complemented each other. For example, a healthy vision leads to self-confidence, leading to a strong sense of well-being and sense of community. A good Sense of Community understanding confirmed student self-efficacy of Vision, and positive Sense of Community momentum continued in the educational environment. Vision and strong Sense of Community are important foundations for international

students as they maneuver through individual and group interactions of socialization (Tucker, 1999). ISOs can work with international students to increase Sense of Community and help focus Vision to provide campus community inclusion goals leading to higher international student self-efficacy.

Baker and Siryk (1984) conducted a longitudinal study over three consecutive academic years using freshman students to measure adjustment to college. The measurement is a 67-item self-report questionnaire using a Likert-type scale named the Student Adjustment to College Questionnaire (SACQ) that provides four scales (Academic Adjustment, Social Adjustment, Personal-Emotional Adjustment, and Attachment) as aspects of adjustment. Most of the questions concern academic and social adjustment. Woo and Bilynsky (1994) conducted research to examine the relationship of involvement on different aspects of student adjustment to college life to include academic performance as measured by GPA. Two-hundred and thirty-seven college students attending a medium size predominantly white public university in the Mid-Atlantic region participated in the study. Baker and Siryk's (1984) SACQ was used. Of the 237 subjects who participated in the survey, 192 subjects allowed the researchers access to their GPA records. Involvement was measured as number of hours per week a student participated in campus organizations and activities. Findings among males showed those in the moderate and high involvement groups had significantly higher levels of social adjustment compared with those subjects in the No Involvement group (Woo & Bilynsky, 1994).

Kagan and Cohen (1990) discuss cultural adjustment of international students as involving both acculturation and assimilation. Acculturation, adjustment, and assimilation define behaviors, values, and attitude changes. Cultural adjustment is defined "as a process that incorporates levels of association with the host culture and extinction of the native culture" (p.

133). Research shows European students having easier cultural adjustment in U.S. colleges and universities as opposed to Asian and African students. European culture is closer to American culture because of heavy European influences in the nascent of the American colonies (Abe, Talbot, & Geelhoed, 1998).

Lysgaard (1955) conducted early research regarding international college student adjustment and his work is often referenced in scholarly articles. Lysgaard's research focus is foreign society adjustment. Studying Norwegian student sojourners in the U.S., Lysgaard observed international student adjustment as a process taking place over time and labeled the pattern of his subject's adjustment as following a u-shaped curve. Lysgaard proposes the U-shape Theory where international students traverse through three stages of adjustment: good initial adjustment, then an adjustment crisis, and finally back to good adjustment. During the initial adjustment phase, an individual spends time observing U.S. patterns of living, familiarizing themselves with routine, and making acquaintances among peers. Adjustment is easy and successful at the beginning of the international student sojourn experience, the top of the u-shaped curve. Participants enjoy being abroad and experiencing new things. Also, at this point in time, social contacts are mainly superficial and limited; there is no commitment to becoming involved in deeper social interaction. After a period of time, the need for more in-depth relationships and group belonging develops. This need can be difficult to achieve especially considering the academic commitment international students have undertaken. Social life would take place in classrooms, common areas, dormitories, cars, restaurants, etc. Under these circumstances involvement in social groups may not occur and loneliness may set in. Students feel out of place and blame U.S. society for their failure to achieve personal contact. Following this is a crisis where adjustment becomes more difficult and the international student

experiences feelings of unhappiness and periods of loneliness, the bottom of the U-shaped curve. Lysgaard explains international students require intimate levels of contact within the community and this need becomes present before the ability to access and communicate the need for such contact within the domestic student population occurs. This lag in meaningful contact creates feelings of loneliness and maladjustment. Typically, good adjustment returns as international students do make friends, are included in larger social circles and feel like they belong within the campus community. Eventually, but not always, international students experience increases in community integration. When community acceptance occurs, student sojourner adjustment improves and moves up the right side of the u-shape increasing adjustment. Lysgaard's (1955) research and u-shape theory are groundbreaking in the field of international student adjustment.

Many theories relating to international student adjustment originate in Lysgaard's pioneering piece of research. Gullahorn and Gullahorn (1963) examined Lysgaard's (1955) u-curve theory concerning student levels of adjustment when studying in a foreign country and created the w-curve theory focusing on alienation and rejection encountered by international college student sojourners. For the purposes of this literature review, an explanation of w-curve theory will concentrate on the first facet of the understanding of the w-curve, acculturation. W-curve theory examines reactions of people in foreign places and upon return to their country. The w-curve theory was developed to describe experiences of acculturation and re-acculturation in intergroup relations. According to the w-curve hypothesis, upon arrival in the domestic culture, foreign students reported euphoria, optimism, and anticipation of interacting with their hosts. Interaction and sentiment are two variables showing variations in acculturation and re-acculturation. Proximity and similarity are two important factors influencing the relationship between interaction and sentiment. Proximity is important because the closer people are to one

another increases interaction potential. Positive interaction and sentiment as a result of proximity depends upon perceived similarity. Frequency of proximity and interaction increase perceived similarity on sentiments, specifically the effects of similarity or dissimilarity of attitudes and values. With similar attitudes, proximity and frequent interaction typically raise the degree of positive sentiment. The closer in proximity the international student is to members of the host country, interaction becomes likely, increasing ability to share similarities, and potentially achieving a positive sojourn experience. When an international student has only slight dissimilarities of attitudes, more positive feelings between the parties are present.

Once involved in relationships, frustration occurred in achieving goals. Foreign students became depressed and negative attitudes toward the host country increased starting the slide down the w-curve. This is a critical stage in the W-curve hypothesis. When strong dissimilarities are exposed, proximity and frequent interaction can result in negative interaction leading to mutual dislike and dissociation. Sojourners in the involvement phases of foreign culture adjustment oftentimes are in a circumstance of structural imbalance or cognitive dissonance, discovering people who sojourners thought shared similar characteristics might actually have very different values and norms. If there are strong dissimilarities, aversion and isolation occurs because of proximity and opportunity for potential interaction leading to negative repercussions. The international student may withdraw from social settings and unable to ascend back up the w-curve because dissimilarities do not synchronize with the student's own values or home country customs. International students may withdraw or avoid participating in role behavior not syncopating with their values and norms and reduce dissonance by modifying or assimilating certain beliefs or sentiments regarding culturally accepted role behavior. Resolving dissonance usually finds a sojourner changing either their sentiment or belief structure. If the international

student can resolve problem(s), interaction effectiveness increases with domestic students and host culture and international students begin climbing up the w-curve (Gullahorn & Gullahorn, 1963).

Cushner and Trifonovitch (1989) created a four-stage model of cultural adjustment. Cultural adjustment is an ongoing process where people are presented with new situations when moving from one culture to another. Similar to Oberg's (1960) research on culture shock, the first stage in Cushner and Trifonovitch's cultural adjustment model is the Honeymoon Stage where upon arrival, an international student experiences exhilaration, anticipation, and excitement. Everything is new, a student is eager to please, cooperates, and is actively interested in dialogue with domestic students. Sometimes in their enthusiasm, the international student will nod or smile to infer understanding, but they actually have no idea what was said. When these misunderstandings accumulate, the international student moves into the second stage of cultural adjustment—The Hostility Stage. Frustration, anger, anxiety, and even depression occur. International students begin tiring of speaking and listening to English. Frustrations include rejecting the new or host culture and blaming the external environment for their situation. Academic problems can begin in this stage. This is a difficult time to work with an international student. Advocates will require tolerance, patience, and a will to work through this stage with the international student in order to help them move into the third stage.

According to Cushner and Trifonovitch, once an international student starts to relax and finds humor in minor mistakes and misunderstandings they enter The Humor Stage. Evolution occurs when what might have previously derailed an international student in The Hostility Stage transforms into humor. International students become more relaxed by making friends and begin managing the size and complexity of their sojourn experience. Home Stage is the final stage

where international students understand they can stay true to their home culture and also feel comfortable in their new culture. Success has been achieved in the international student's understanding and by gaining awareness of the norms and standards of their new environment (Cushner & Trifonovitch, 1989).

Lin and Yi (1997) believe adjustment to a new environment improves through proactive programming focusing on cultural issues and transitions. They created a four stage model of Asian student adjustment in the U.S. Pre-Arrival Adjustment Stage commences before the sojourn to the U.S. begins. This stage's primary goal is preparing and providing necessary information to international students before arrival in a foreign country. The purpose of frontloading pre-departure information is reducing international student anxiety and absorbing some culture shock. Pre-departure information for an international student studying in the U.S. includes: adjustment process, U.S. culture, geographic environment, U.S. education system, financial requirements, and housing information. Next, Initial Adjustment Stage begins with international student arrival and lasts six months. Primary goals in this stage are orienting international students and lowering culture shock through accommodating international students by picking up at the airport, assisting with moving in or finding housing, food shopping, information on public transportation system availability, and holding a welcome gathering. Networking opportunities such as information about clubs and organizations, mentors, and conversation partners can all help with transition (Lin & Yi, 1997).

On-going Adjustment Stage begins after the sixth month lasting until graduation. This stage's goal is helping international students deal with bi-cultural conflicts to sustain a balance between getting involved in the new culture while maintaining self-cultural identity. International students should be participating in social networks with domestic students as well

as students from their same country or region. Finally, Return-Home Adjustment Stage starts at graduation and lasts for six months upon arrival at home. The international student anticipates returning home and readjustment, gets ready for employment opportunities, and reduces return home anxiety (Lin & Yi, 1997).

Bochner, McLeod, and Lin (1977) identified four problems encountered by international students: culture shock, the ambassador role, adolescent emancipation, and academic stresses. Their example of culture shock is dealing with life problems such as daily social activities in new cultural settings. The ambassador role is an international student being thrust into the role of being an informal representative of their country and culture. Adolescent emancipation is when the student establishes himself as an independent, self-supporting member of society. Finally, academic stresses are encountered through being a student in higher education; i.e., numerous exams and complex study materials.

Lin and Yi (1997) examined acculturation problems among Asian students. International students from Asian countries have difficulty balancing acculturation in the foreign country of study and maintaining their own culture. Asians tend to be modest about their accomplishments and feel awkward with individualism and competitiveness seen in Western culture. The disparity between the two cultures can lead to intrapersonal and interpersonal conflicts. When individuals leave their socio-cultural system and enter a new one, skills allowing participation from their socio-cultural system will not transpose to a new cultural environment. Accepted norm behaviors could be inappropriate in a new culture (Kuh & Love, 2000). Through the enculturation process a person from any society acquires the necessary skills in order to participate in a specific socio-cultural system. According to Hallowell (1955) the primary function of the enculturation process

is “to prepare individuals for participation in a specific behavioral world” (p. 314). Behaviors accepted in one’s culture could be deemed inappropriate in another culture (Hallowell, 1955).

Sodowsky and Lai (1997) studied a sample of 200 Asian immigrants and sojourners using the Cultural Adjustment Difficulties Checklist (CADC) developed to understand Asian stresses brought about by acculturation issues. CADC covers subjects such as majority-minority conflict-related interpersonal problems, alienation toward their own cultural group, and self-efficacy issues in a majority society. Researchers examine how stresses were influenced by immigrant variables including acculturation, preferences for language use and social customs, age, age when immigrating, length of time living in the U.S., extent of friendship networks in their ethnicity, family influences, income, and perceptions of prejudice. Findings suggest lower levels of acculturation led to higher levels of acculturative stress. Sodowsky and Lai suggest cultural adjustment is related to acculturative distress and intercultural competence.

Acculturative distress occurs as general and cultural stress reactions when undergoing cultural adaptation. Intercultural competence concerns itself with difficulties individuals encounter when relating to others contextually in a new culture.

International students encounter numerous adjustment stressors during a study abroad sojourn. Acculturation is one of these stressors and is defined by Gordon (1978) as “change of cultural patterns to those of the host society” (p. 169) and by Garcia and Lega (1979) as “the acquisition of values of a host society by members of a minority or immigrant group” (pp. 247-248). According to Berry (1997), Church (1982), and Ying (2005), cross-cultural living brings a lot of acculturative stressors, especially transitioning between Eastern and Western cultures. ISOs must be aware of stressors including: physical, biological, social, cultural, and functional; and must immediately deal with acculturative stressors upon international students’ arrival to

campus. Physical stressors include climate and unfamiliar setting; biological stressors include food and disease; social stressors include homesickness and isolation; cultural stressors include differences in cultural values and discrimination; and functional stressors include language, work, study, finances, and transportation. Any of these acculturative stressors can have a debilitating effect on an international students' transition into an American higher education environment (Ying & Han, 2006).

International students have many cultural adjustment issues including personal space, eating new foods, utensils used to eat, time schedules, etc., and these new cultural values and norms can lead to "culture shock" a term Oberg (1960) is credited with coining. Oberg described culture shock as consisting of fear, anxiety, a feeling of helplessness, homesickness, and feelings of frustration. He defined four stages of culture shock. The honeymoon stage, where adjustment is positive, lasts a few weeks; a hostile stage where instances of withdrawal from the host country are seen as well as an increase in the sojourner's criticism of the host country; an initial recovery stage where superiority and humor are seen, and lastly, host culture adjustment (Oberg, 1960).

Culture shock occurs when people lose familiarity regarding social interaction. Individuals need necessary skills to function and participate in a particular socio-cultural system (Oropeza, Fitzgibbon, & Augustine, 1991). When a student changes socio-cultural environments, culture shock occurs when skills enabling an individual to participate in the former system are insufficient in the new environment. Westwood and Barker (1990) define culture shock as "a normal process of adaptation to cultural stress involving symptoms as anxiety, helplessness, irritability, and a longing for a more predictable, and gratifying environment" (p. 252). Cultural signs and symbols including: customs, gestures, facial expressions, and words are unique. Once

removed from their home environment, international students lose familiarity and undergo different degrees of culture shock (Westwood & Barker, 1990).

Critical adjustment personality characteristics to help deal with culture shock include maturity, emotional stability, flexibility, and tolerance for ambiguity. Oropenza et al. (1991) recognize the importance of international students in higher education and focused their research on mental health concerns of this population. International students, especially those from Asian cultures, use support services such as tutoring or counseling in lower numbers because of the stigma attached to publically accessing help from others outside of their cultural collective (Hayes & Lin, 1994). Because of their cultural collectivist values, along with emotional restraint, Asian students tend to under-report when they are under psychological distress. International college students are more likely to seek informal support such as friends and family rather than counseling services because of unfamiliarity of cultural and language differences with counselors (Wilton & Constantine, 2003). As student affairs professionals working with international students, Oropenza et al. (1991) found six key stress areas: culture shock, change in social and economic status, expectations about academic performance, family-related pressures, dealing with the death of a family member or close friend, and a miscellaneous category encompassing idiosyncratic issues such as political developments in their native country along with cultural differences in male-female relationships. Changes in economic and social status are threatened upon arrival to the U.S. because international students must become independent and cannot directly access money as they might in their home country. Making good grades is important not only for the international student's well-being, but also to enhance family loyalty and pride especially in collectivist cultures. Culture shock was lowered when international students took

classes covering topics such as cultural orientation, language acquisition, and stress management (Oropeza et al., 1991).

ISOs help international students identify and prepare international students for potential causes of culture shock. The professionals working in ISOs provide support to buffer culture shock efforts while promoting critical adjustment personality characteristics to reduce culture shock and other stressors. International educators can communicate culture shock efforts through workshops and seminar training sessions to administrators, faculty, and staff. Recognizing responses to culture shock empowers higher education professionals to understand international student reactions and lower misconceptions of international students (Bennett & Bennett, 1994).

An important consideration in helping international students overcome the symptoms of culture shock is in their understanding the contrasts between Eastern and Western cultures and norms. Differences in education including purpose, ways of learning material, teacher-student relationships, and classroom participation and interaction are all important components in a successful transition between Eastern and Western cultures. According to Rubenstein (2006), the purpose of education is viewed differently between Eastern and Western cultures. East/West cultural differences are significant, and higher education professionals need to recognize these differences to lower culture shock.

In Eastern cultures, society views education as a tool for strengthening the country as opposed to the individualistic Western culture sociological view of education improving quality of life through a potentially well paid employment situation. Western culture views intelligence as innate although susceptible to environmental influences, whereas Eastern culture views intelligence as being improved through hard work, and lack of intelligence correlates with failing to work hard as opposed to lacking ability. Eastern culture promotes a collectivist orientation

where individual needs are subservient to group needs. Modesty is valued and success is linked to family, and to a lesser extent peers and society. Fast learners help teach slow learners. Western culture promotes an individualistic orientation where relationships are manifested according to self-interest and status is based on individual accomplishment. Additionally, the teacher-student relationship is contrasted through cultural lenses. Western culture teachers primarily transmit knowledge and skills. Teachers in Eastern cultures are highly respected and possess an abundance of knowledge that becomes the students' duty to learn. McGroaty (1993) found students whose educational upbringing included exposure to teachers behaving in a more formal, authoritarian style have great difficulty in an informal classroom style of instruction. For example, to an Asian international student, an informal host country professor is perceived as inadequately prepared or even lazy professor. This could explain why international students from Asia are uncomfortable in American college and university classrooms where an informal classroom style of instruction exists.

ISOs can respond to these cultural issues by conducting orientation seminars and workshops for international students, especially at the beginning of each semester. This could improve clarity on classroom communication and expectations for international students (Rubenstein, 2006). ISOs can respond to these problems by offering resources such as workshops, guest speakers, referring to literature, access experts to inform and engage faculty to promote awareness of differences in international student perception and inclusion in an American classroom. ISOs can also provide workshops on how differences in culture affect international student learning and enlighten faculty to teaching methods to increase international student classroom involvement.

Classroom communication discrepancies between Eastern and Western cultures are of paramount importance to understanding international students. Western culture teachers expect questions to be asked by students learning to fill gaps in knowledge. Frequently, teachers ask questions in class to determine whether students read before class or did their homework. However, Eastern culture students ask questions after studying on their own. Another difference is classroom verbal and non-verbal communication. Direct eye contact is a sign of being candid in a Western culture classroom such as the U.S. and avoidance of direct eye contact suggests the person is hiding something. Direct eye contact in an Eastern culture between student and teacher would be the ultimate show of disrespect to the teacher. Emotional expressions can be inappropriate in an Eastern culture class and very appropriate in a Western culture class. Western culture teachers want students to interject passionate responses to a particular topic or issue, an antithesis of Eastern culture international students speaking so softly they cannot be heard (Rubenstein, 2006).

Byrd (1991) notes some institutions admit international students to maintain or increase enrollments without providing appropriate training toward functionality in a college classroom. International students must be proficient in reading and writing academic English; listening to and taking lecture notes, and developing vocabulary beyond everyday usage. When unprepared non-native English speaking international students are placed into English speaking classes, three difficulties arise. First, the international student is unable to fully comprehend lectures and classroom discussion because of limited vocabulary and possibly never listening to English at a rapidly spoken pace. Classroom instructors are placed in a nearly impossible situation of developing the international student without adequate resources and in most instances proper

ESL training. Having an international student in the class who is unable to communicate with domestic students creates interaction difficulties between groups.

Oftentimes, communications difficulties arise when a domestic professor attempts to ascertain whether international student cultural adjustment issues are from learning English or general language difficulties affecting reading, writing, or speech in their native language (Maxwell, 1979). Communications between international students and domestic students are beneficial because non-native speakers can interact and gain experience using their English language skills. Unfortunately, Americans lack time, desire, or patience to work with international students. Yet, people speaking the dominant language share responsibility in developing cross-cultural relationships. Regarding English language proficiency, Sam (2001) found no relation between level of language proficiency having at least one host country friend and life satisfaction. One adjustment factor particular to host culture norms and values is the international student's degree of fluency with the English language. Poyrazil and Maraj (2007) state English language proficiency is an important predictor of international students' academic achievement. According to Hayes and Lin (1994), international students who stated their understanding and use of English language as sufficient upon their matriculation onto a college campus are able to adapt socially.

Barratt and Huba (1994) used a survey to measure international undergraduate student motivation, self-esteem, interpersonal relationships, participation in extracurricular activities, English language skills, and adjustment to the community. Their research hypothesis was that the higher an international student's integrative or assimilative motivation, the higher their interest and success would be in developing relationships with domestic students', improving their level of adjustment, with increased self-reporting of using campus and community programs and

amenities. The population of this study consisted of undergraduate students enrolled at a Midwestern state university before the 1992 spring semester. One hundred seventy surveys were returned. The purpose of the Barratt & Huba study was to inquire undergraduate students regarding perceptions of their study abroad experience and circumstances affecting their experience and the research goal focused on improvement for international student adjustment by promoting proactive programs and assistance. No significant relationships ($p < .05$) were found between international student motivation for coming to the U.S. and interest and success in building relationships with domestic students, adjustment, and use of community programs and activities. There were positive relationships between interest and success in building relationships with domestic students and student evaluation of their experience in adjusting to the community ($r = .26, p = .001$), and their current self-esteem ($r = .40, p = .000$). English language skills were positively related to interest and success in building relationships with domestic students'. Student self-esteem was also found to be a positive relationship to reported use of programs and amenities ($r = .21, p = .007$) (Barratt & Huba, 1994).

An example in the literature of first-hand experiences in Eastern and Western cultural differences is Jackson's (2004) study examining positive and negative factors associated with study abroad experiences. Using an ethnographic case study model, 15 English majors from the Chinese University of Hong Kong travelled to England for a five-week study abroad experience. Each student lived with a host family and for many this was their first time away from home. The negative outcomes of this experience are similar to previous acculturative studies (Ying & Han, 2006), where most students experienced homesickness and felt out of sorts early in their experience. Students also wrote about how difficult an adjustment it was to eat English cuisine (Jackson, 2004). Differences in food are one of the stressors leading to culture shock (Westwood

& Barker, 1990). Furukawa (1997), using the Cultural Distance Questionnaire (CDQ) on Japanese students, found food was the subscale having the greatest impact on intercultural adjustment. In Jackson's (2004) study, hosts frequent and open displays of affection were intended to make international students feel at ease, but actually were discomforting and some students even became overwhelmed by the level of affection. A male student shared his experience about leaving his host family at the end of the five-week stay. He gave the family a tablecloth as a gift and thanked them for taking care of him. The host mother proceeded to hug him and told him "I love you." It was the first time the student ever experienced being hugged. Though he witnessed her hug her sons, he felt embarrassed by this gesture.

Although there were drawbacks cited in Jackson's (2004) study, they were superseded by positive outcomes of the overall study abroad experience as seen in a shift in participant attitude from the beginning of the study abroad experience. Comfort increased with participant surroundings and increased effort to understand and appreciate different approaches. Participant linguistic improvement and confidence in conversations with domestic students grew and participants observed domestic student behaviors assisting in understanding local communication. Student independence and self-confidence grew and curiosity of the world expanded with exposure to new ideas, values, and behaviors. Once overcoming the initial culture shock, students learned a great deal and some even desired participation in another study abroad experience (Jackson, 2004).

Kuh and Love (2000) found a great majority of colleges and universities are committed to diversity in their student population, faculty, and curricula. However, there is an unwritten assumption suggesting students from a different cultural background must adapt to institutional culture. Campus culture relates whether a student remains at an institution. From a cultural

perspective, institutional culture is both product and process. Institutional culture accumulates through daily interactions and routines, symbols, special ceremonies, and traditions. Culture on a college campus continues to evolve, and new people constantly join and leave the group. Interactions with fellow students influence the larger institutional environment along with its sub-environments. Culture can be perceived as a form of social control, and as a result, the institution or subgroup can promote pressure on conforming to dominant group norms and attitudes. Therefore, the foundation of cultural influences rests within acquired frames of reference, normative behaviors, and values. An advantage of using culture as a framework for retention is its ability to account for student behavior. Individuals make voluntary decisions about whether to leave an institution. These are often molded by cultural forces (Kuh & Love, 2000).

When viewed from a sociological perspective, international students and people of color attending a predominantly white institution in the U.S. have many similarities. Both populations provide unique values and needs to the higher education environment requiring administrators to respond by providing appropriate services and support including services designed to meet the needs of these populations. Programs and services for these populations are not a “one size fits all” capturing the intended audience. The effectiveness of institutional leadership and the staff implementing programs and support is dependent on a broad understanding of cultural mores and differences. International students and people of color have distinct traditions, customs, and world views and the majority of professional staff on college campuses does not undergo special training in cross-cultural issues (Grubbs, 1985).

The legal and social statuses of international students and people of color can be described as being labeled as outsiders. White U.S. students, the “we” group in predominantly

white U.S. higher education institutions, classify other groups as “different” and when discussing these populations, international students and people of color are sometimes referred to as “they” (Grubbs, 1985). A case in point is a college staffer quoted in a college newspaper. This person was discussing the Japanese triple tragedy of earthquake, tsunami, and nuclear emergency in March 2011, and how the loss of life affects Japanese people saying “*They’re* human and *they* feel and *they* breathe and *they* have emotions just like you and I” (Mabe, 2011, p. 1). A better approach would clearly identify the group of people affected by this tragedy as Japanese instead of the dehumanizing “they” referrals.

Numerically, and through the lens of diverse national, cultural, and racial backgrounds, international students and students of color are considered minorities in the U.S. Minorities are treated as members of a category, i.e. international students. Both international students and students of color are distinguishable from the dominant members of the host culture and excluded from full participation in the institution. Carey and Mariam (1980) define minorities as “a group of persons apart from the mainstream of social processes and institutions. For the most part, they are perceived to be politically, socially, economically, and educationally distinct” (p. 131). When international students and students of color matriculate into a new school, they generally adopt new values and incorporate new belief systems of the dominant culture at the expense of their own cultural and national identity.

International students are sometimes unaware of how being different sometimes provides certain levels of ambiguity. Yet, international students are also expected to have a level of understanding equal to domestic students and participate in the same activities as domestic students while simultaneously there is a lack of recognition of the difficulties faced in coping with these requirements. Interaction with the host culture leads to effective participation and

communication by culturally unique individuals in the academic arena and society at large. The dominant pattern of international students and students of color adjustment and adaptation is withdrawal into smaller enclaves that minimize interaction with society, thus leading to expectations of unwillingness to participate in all phases of campus life. When international students and students of color limit inclusion in educational and social activities it leads to inadequate adjustment (Carey & Mariam, 1980).

Difficulties, including racial/cultural discrimination will arise for international students when navigating within collegiate and societal cultural norms. Adjustment for international students can be stunted or even derailed based upon how they perceive the weight of an event or its intensity leading to alienation and avoidance. Withdrawal into conational communities counterattacks these unpleasant circumstances (Carey & Mariam, 1980). Other issues faced by international students and students of color are media enhanced preconceptions and stereotypes that reinforce the categorical views of domestic students, staff, and administration.

Viewing these populations from a categorical perspective reduces the range of participation in social activities and becoming involved in the socio-cultural process of the dominant culture. The expectations of these two groups are rapid conformity to the host culture and the possibility of being limited in their conformity by stereotypes (Grubbs, 1985).

The minoritization of international students in the U.S. is a process of socialization where they are introduced to American society and learn adaptive skills. International students are re-socialized by learning about mainstream American society and culture through exposure to new values, beliefs, and modes of behavior. Next is the selection of behaviors to attain their educational goals through appropriate and beneficial adjustment to American society. This re-socialization is done at the expense of the international students' cultural and national identity

creating confusion and a disproportional balance in their beliefs and attitudes. The alternative of inadequate adjustment occurs when there is limited participation in educational and social activities (Carey & Mariam, 1980).

The acculturation of international students is similar to students of color because both groups are attempting to compete for status, rights, and privileges within the dominant culture's institutional system framework. Distinct parallels between international students and people of color being labeled as minorities can be found in the three phases in the minoritization process separation, labeling, and treatment, limiting access to and participation in socio-cultural activities (Carey & Mariam, 1980). Wagley and Harris (1964) identify five descriptive features categorizing a minority group. First, is a subordinate social group where members experience disadvantages delineating from prejudice and discrimination. Second, the group has physical or cultural characteristics deemed inferior to the dominant group. Third, people in the minority group are sensitive to their status. The fourth feature is membership is prescribed and non-voluntary. Finally, minority group members tend to marry and stay within their own communities.

Carey and Mariam (1980) posit four adaptation modes in the minoritization of the international student. First, during their initial experience, international students possess a minimum of two sets of cultural orientations. An international student forms a broad view of their new environment to identify important differences between what they know in their culture and what is different in the new environment. The next mode is "cultural straddling" (p. 133) where the international student attempts to use newly learned social skills in their new environment. Third, is encountering multiple adaptations and creating balance between the cultural experiences of the international student. This pattern of socialization can be traumatic

because the international student must resolve the contradiction between personal and social goals against goals and objectives to pursue. Finally is the fatal immersion into the host's culture and social activities. This occurs when the international student develops disdain for their own culture and the practices and cultural values of their own society while embracing the host culture.

Cultural distance is another challenge for relating international student academic and social performance. Three of Kuh and Love's (2000) eight cultural propositions pertain to cultural distance. Proposition 4 states "The probability of persistence is inversely related to the cultural distance between a student's culture(s) of origin and the cultures of immersion" (p. 204). International students must travel long distances from their homeland to their institution of choice. Even though international students travel a great geographical distance, the cultural distance travelled is often more important. Proposition 5 states "Students who traverse a long cultural distance must become acclimated to dominant cultures of immersion or join one or more enclaves" (Kuh & Love, 2000, p. 204).

Travelling to a foreign country with the intent of obtaining a college degree is difficult, threatening, and intimidating especially considering students who realize immersing within the domestic and institutional subculture conflicts with parts of their home culture, and their meaning-making systems. Meaning-making systems consist of values, assumptions, and beliefs regarding college expectations, student role in college, and importance of obtaining a college degree. For example, Asian culture discourages speaking aloud in class, and working by oneself is socially unacceptable, whereas in Western cultures, these actions are pathways to higher grades. Proposition 6 is "The amount of time a student spends in one's cultures of origin after matriculating is positively related to cultural stress and reduces the chances they will persist"

(Kuh & Love, 2000, p. 205). Through socialization, those who travel long cultural distances must adopt institutional values, attitudes, beliefs, and assumptions of the institution for survival and success. Sojourners, in extreme cases, are even expected to deny or renounce their own culture. One's compliance and ability to leave their cultural setting could be necessary in order to persist in another culture. Therefore, an explanation as to why some international students leave an institution is their lack of ability to regulate distance between their own culture and the dominant culture of the institution (Kuh & Love, 2000).

Two policy and procedural recommendations from Braxton and McClendon (2002) incorporate administrative implementation to influence social integration and retention. These recommendations are common knowledge for domestic students, yet for international students, the recommendations are critical components of social integration leading to understanding acceptable norms and values in the host country. Successful implementation of these two recommendations could expedite international student transition into the host culture. The first recommendation promotes an institutional development policy of clear and consistent communication regarding rules and regulations. Social integration and persistence can be improved with well-informed students (Berger & Braxton, 1998; Braxton & Brier, 1989). The second recommendation requires a policy of first and second year students living on campus for the purpose of guiding their social integration (Christie & Dinham, 1991; Pascarella & Chapman, 1983). This is an especially important recommendation for international students because living on campus helps them incorporate into the social fabric of the campus and learn about involvement opportunities.

Furukawa (1997) used the Cultural Distance Questionnaire (CDQ) to determine whether cultural distance was a factor in the adjustment of international students. CDQ consists of 31

questions relating to attitudes, preferences and behaviors, social contact, ethnocentrism, and adherence to cultural values and measures distance between two cultures based upon their social and physical attributes. Furukawa's purpose in using CDQ was to evaluate reliability and validity of the Japanese version of the instrument. Reliability and validity of the Japanese instrument was demonstrated. Subjects were 272 Japanese high school and college students between the ages of 18 and 20 years old studying abroad. Pre-departure, each student was given self-report questionnaires to answer. After six months, each participant was given the General Health Questionnaire (GHQ) to measure emotional distress in the host country. Six months after returning to Japan, CDQ was administered and 78% gave consent and returned the questionnaire. Research results conclude cultural distance as measured by the CDQ did increase levels of emotional distress in participants.

Previous research from Longhurst (1999) and Sander, Stevenson, King, and Coates (2000) recognized social contact as a valuable component of students' learning experience. On a simplistic level, persistence increases when faculty spent more time informally with students and students with peers (Tinto, 1982). Astin and Kent (1983), along with Pascarella (1985), found students' level of academic success and frequency of interaction with faculty and peers can positively influence one's intellectual or interpersonal self-concept. Pre-college academic self-concept did have a positive relationship with collegiate academic achievement (Pascarella, Smart, Ethington, & Nettles, 1987). These studies provide evidence as to why ISOs need to promote and encourage greater contact between faculty and international students.

A top priority for new college students when matriculating onto campus is making friends. Social integration is a key college student transition component. Sharing a sense of community promotes social integration of first-year students. Socialization is very difficult for

international students especially those limited in their grasp of the host language and limited awareness of host culture, customs, and norms. Napoli and Wortman's (1998) research indicates social support and peer involvement are positive influences on social integration. Within a college framework, social integration is defined as the "extent of congruency between the individual student and the social system of a college or university" (Braxton, Sullivan, & Johnson, 1997, p. 111). Pascarella and Terenzini (1991) define social integration as "the extent which the individual shares the normative attitudes and values of peers and faculty in the institution and abides by the formal and informal structural requirements for membership in that community or in the subgroups of which the individual is a part" (p. 51).

Retention will improve when international students immerse themselves within the framework of host culture norms and values, or through obtaining enclave membership. Enclave membership helps international students fit in, develop a sense of belonging to at least one group, and enables recognition of people with similar values, assumptions, perspectives, beliefs, and meaning-making systems. Cultural connections with other students, faculty, and others can improve an international student's sense of belonging (Kuh & Love, 2000).

Tinto's 1975 research hypothesizes interactions with faculty and administration, informal peer group associations, and study group learning as components of college student social integration. Tinto's findings support his hypothesis that higher social integration leads to greater levels of institutional commitment. When students withdraw from school, Tinto found there is a relationship between attrition and how significant student intellectual and social integration is part of the institution. Student-to-student interactions and student-to-faculty interactions outside the classroom are most beneficial because the peer group is a primary component of undergraduate student development and faculty is secondary. Personal contact between faculty

and students is critical, but even more critical is the quality of contact. Faculty who highly value student development, altruism, and social activism help facilitate student learning and development. Professors are very important cogs in promoting social integration (Astin, 1993).

Social network is a subcategory of social integration and can be traced back to Durkheim's (1897/1951) work on suicide hypothesizing a person with higher integration into the structure of societal institutions would reduce the likelihood of the individual facing social isolation. An individual experiencing a lower degree of social isolation would be less likely to commit suicide. Durkheim's research plays a prominent role in Tinto's Student Integration Model SIM (1975, 1987, 1993). Tinto's SIM modifies a student's original intent and commitment once they are integrated into the institution through the degree of connection with fellow students. Integration is measured when looking at student awareness of their on-campus associations.

Thomas (2000) defines social networks as "the sets of acquaintances and friendships that define one's relations with others" (p. 595) and connects the social network paradigm with Tinto's SIM as a way of understanding social integration. Thomas' research looks at the relationship between social integration and student social structure roles in retention. From the social network perspective, Thomas attempts to determine subgroup membership and characteristics of relationships to and within these subgroups. During the 1992-1993 academic year, Thomas used 322 first-year freshman responses from a private liberal arts college and collected grade and enrollment data after the first year. Findings suggest a relationship between academic integration and retention. No link was found between academic integration and institutional commitment. Students with fewer out-of-peer-group connections limit their opportunities to be influenced by people in the broader network. Granovetter (1973) concluded

students with lower peer group connections are more dependent on people in their peer group for academic and social support and therefore less likely to move outside the circle. International students first typically form enclaves with co-nationals and people from similar cultures.

Territoriality could result in lower social and academic adjustment as well as potential lower academic performance, with a greater likelihood of leaving the institution (Thomas, 2000).

Bonacich's (1987) measure of centrality measures the degree a student is connected to other connected students and did have a small direct positive relationship on persistence. The results of Bonacich's research along with Thomas' (2000) findings bring credence to the idea that student networks can be viewed as "pools of social and academic resources from which students draw" (Thomas, 2000, p. 607). Students having significant connections outside their peer group performed better academically and increased persistence. Students with broader, well-connected networks make easier connections with others because they have many strands connecting many parts of the overall social network. Thomas suggests designing activities and residential environments encouraging the development of student relations for the purpose of enhancing in-group diversity and most importantly to empower students to develop a relationship portfolio that provides key academic and social resources especially during the first year at a college or university (Thomas, 2000).

Berger (1997) adds three subscales of how sense of community in dormitories influences social integration and factor into whether a student leaves an institution of higher learning: community identity, community solidarity, and community interaction. Community identity is students feeling at home on their dormitory hall and identify as belonging to the dorm community or even a dorm floor. Community solidarity is people on the hall sharing similar basic values, and an example of community interaction is dorm floor neighbors knowing each

other on a more personal level (Berger, 1997). Social integration into the system occurs through involvement in social activities offered at the institution and sharing a sense of community. When a positive relationship is established between an individual's sense of community and integrating into a college campus dormitory, it creates positive effects for student success in other campus offerings including increased faculty contact and higher persistence rates. Berger suggests creating policies, procedures, practices, and student behaviors that facilitate or inhibit social integration sense of community development in dormitories.

As seen up to this point in the literature review, international students face enormous obstacles in learning about cultural forces. First, international students must learn and understand the positive and negative effects when learning through interaction. Second is students' ability to comprehend the culture of higher education. Tichy (1982) describes culture from the organizational perspective as "social or normative glue" (p. 63) defined by shared values and norms that exist within an institution of higher education. The higher education culture can also define, identify, and legitimate authority. Kuh and Whitt (1988) define higher education culture as

the collective, mutually shaping patterns of norms, values, practices, beliefs, and assumptions that guide the behavior of individuals and groups in an institute of higher education and provide a frame of reference within which to interpret the meaning of events and actions on and off campus. (pp. 12-13)

Coping styles, social networks, and proper assessment and adaptation to a new environment are critical to social support systems of international students. Steinglass, De-Nour, and Shye (1985) promote social network size as the best predictor of social adjustment. This goes against Rajapaksa and Dundes's (2002) findings that found no correlation between the

number of close friends of international students and American students and social network satisfaction. Their research found international student perception of social network correlates with adjustment and the researchers imply part of student adjustment for international students is perception of their social network. Items that promote interaction include openness to learn about another's culture, opportunities for learning English, and common interests. Being in a new environment, international students suffer from a heightened state of anxiety reducing opportunities to become part of the college social scene (Hayes & Lin, 1994). Bean and Eaton's (2002) research on coping behavioral theory proposes people can adjust to new situations by assessing and adapting. Coping skills enable students to adapt and adaptation allows integration into the environment of their new school.

Social networks vary in degree of importance regarding the social relations of international students. Most important is the conational network that affirms and allows safe expression of familiar ethnic and cultural values with students from the same country or other countries within their home country's region. Second, domestic student network is a bicultural network whose purpose is facilitating academic and professional aspirations along with domestic student bonding. The least important network, multinational, provides companionship for recreational, non-culture, and non-task oriented activities. A potential benefit of international students participating in extracurricular activities with domestic students is an increase in self-confidence within social settings (Bochner et al., 1977).

Numerous studies discovered significant relationships between social interaction and adjustment of international students (Surdam & Collins, 1984; Zimmerman, 1995). International students who talked and interacted with domestic student students were more likely to have positive experiences in adjusting to the American way of life. Samovar, Porter, and McDaniel

(2009) define intercultural communication as occurring “whenever a person from one culture sends a message to be processed by a person from a different culture” (p. 7). Surdam and Collins (1984) found when international students spent more time informally with Americans, adaptation improved. Zimmerman (1995) found frequency of interaction with American students was the most important factor for international student adjustment.

Another key international student socialization theory is uncertainty reduction theory. Uncertainty reduction theory explains communication in intercultural and intergroup environments and is an important theory to this study because it reinforces the notion that various practices can be used to promote the adjustment and acculturation of international college students by reducing stress and anxiety related to uncertainty. The process of learning English and effectively navigating the U.S. mainstream could be enhanced by social activities such as engaging with other students and faculty members, participation in extracurricular activities, etc. Within the context of uncertainty reduction theory, international students should reduce levels of stress and anxiety associated with social cultural adjustment through engagement (Gao & Gudykunst, 1990).

The uncertainty reduction theory examines uncertainty, anxiety, and adaptation issues encountered by international non-native speaking college students from a communications perspective to explain intercultural adaptation. Gudykunst and Hammer (1988) evolve uncertainty theory by incorporating anxiety and uncertainty reduction to explain intercultural adaptation from the perspective of communication. International college students lack host cultural behaviors and therefore develop feelings of uncertainty or insecurity. The argument suggests that reducing cognitive uncertainty and affective anxiety is a prerequisite for intercultural adaptation. Eight variables affecting both the reduction of uncertainty and affective

anxiety were isolated: knowledge of host culture, shared networks, inter-group attitudes, favorable contact, stereotypes, cultural identity, cultural similarity, and second-language competence. These variables represent difficulties encountered by international college students who speak English as a second language because they cannot immediately process proper behavior in a foreign culture and thus experience a lack of security. Reducing cognitive and affective anxiety is separate, but a combination of the two is necessary for intercultural adaptation. Reducing anxiety and uncertainty is assumed to develop favorable conditions that promote intercultural adaptation. This assumption forms the hypothesis of intercultural adaptation that proposes that uncertainty and anxiety reduction are the only two variables that directly relate to adaptation. Study data show significance in the relationship between uncertainty reduction and adaptation and anxiety reduction.

An ISO helps international students interpret and translate cultural customs and norms and assist with Bean's (1985) three critical results of socialization/selection: developing friendships with domestic students, time spent with outsiders, and loyalty to the institution or institutional commitment. The primary critical result for international college student socialization is developing friendships with domestic students. Friendships take effort because of language and cultural barriers (Hayes & Lin, 1994). For example, there is wide variation in cultural customs when using first names or inviting a stranger to one's home. There can be initial hesitation or even shock on the part of international students at the appearance of how friendly U.S. families are when invited to an American's house. Yet in some cultures, an invitation to one's house equates to a strong relationship between the parties. Therefore, when a friendship does not materialize after a visit to someone's home, some international students may interpret Americans as being superficial (Gullahorn & Gullahorn, 1963). Second, college student

socialization refers to time spent with college outsiders, individuals who do not attend the college. Students spending more time with individuals outside of the institution will not be as socialized within the institution as those whose social focus is within the institution. Students who believe they fit in do so because their values, attitudes, norms, beliefs, etc., correlate with others at the institution. The third critical result of socialization/selection is the individual domain, the sense of personal loyalty to the institution, or the individual's institutional commitment (Bean, 1985).

After reviewing international student literature, the researcher adapted a theoretical framework for this study based on Astin's (1984) Student Involvement Theory. Student Involvement Theory forges interconnected themes involving relationships between Student Involvement Theory with college administrators and international college students. For the purpose of this research, relationships between the theory and its players will focus on learning, involvement in support services and academic outcomes, and involvement in extracurricular activities and academic outcomes.

The researcher's hypotheses revolve around attempting to answer two research questions. First, is there a statistically significant relationship between F1 visa status non-native English speaking undergraduate international student frequency of involvement using academic support and extracurricular activities and positive outcomes of overall Grade Point Average (GPA) and retention rates? Second, does an International Student Office (ISO) moderate an increase in undergraduate F1 visa status non-native English speaking international student frequency of involvement when using academic support services and participating in extracurricular activities leading to improved student outcomes, seen in higher overall GPA and retention rates? Proving the hypotheses would confirm a positive relationship between International Student Offices,

increases in international student frequency of involvement resulting in positive academic outcomes for international students. International students find established ISO professional advocates whose primary purpose is supporting international student transition through institutionally sponsored mentoring programs as well as provide direction and guidance to accessing, locating, and connecting to general student services including tutoring, advising, and joining study groups; and participating in extracurricular activities including clubs and organizations, intramural sports, and attending off-campus events and activities.

Astin's (1975) original involvement theory research evolved from his research on dropouts and his research purpose is identifying factors within the college environment related to a student remaining in college. From the identified factors, each positive factor increased the possibility of increasing student involvement; and negative factors inferring a lack of involvement led to student attrition. Factors occurred between students living on-campus and also working on-campus to positive retention. Students living on campus had additional time for involvement in various aspects of college life and developing stronger attachment to the daily routine of college life. College students who actively participate in peer interactions including other positive factors such as: working on group projects, participating in intramural sports, membership in a Greek organization, serving in a student office, socializing, etc., showed positive relationship on student self-reported measures of academic development including those of acquiring general knowledge along with analytical and critical thinking skills. College Grade Point Average (GPA) and graduation with honors were also indicated as positive factors with peer interaction (Astin, 1975).

Astin's (1984) Student Involvement Theory, which Rendon et al. (2000) state is probably the most used college model of student development, allows student development researchers to

inquire and work to improve or design better student involvement environments. Student Involvement Theory has five postulates and the last two reinforce why an ISO is used as a moderator in this study. The fourth postulate is “The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program” (Astin, 1984, p. 298). An ISO is an educational service program where international students are afforded opportunities to become involved in self-serving multifaceted programs serving their academic and social needs. This postulate could be interpreted as the more frequently an international student uses an ISO, the more international student learning increases. The fifth postulate states “The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement” (Astin, 1984, p. 298). One of the purposes of having an ISO on campus is to increase student involvement and awareness of campus and community offerings. ISOs also break down walls of unfamiliar culture, protocol, language, etc., and can save international students time and avoid potential embarrassment or academic and social pitfalls.

Astin (1984) created Student Involvement Theory to fill a perceived void between educational programs and policies and how these couple to measures of student achievement. The message of Student Involvement Theory for administrators is focusing on what students are doing rather than what educators are doing. Students should be actively involved in the learning process. For the educator, the critical hypothesis is increasing student involvement related to the effectiveness of an educational policy or practice. Student time is the most valued institutional resource. Whether students can achieve certain developmental goals is connected to the time and effort placed in activities that promote said goals (Astin, 1984).

Administrators who focus time and resources on course content, teaching techniques, laboratories, books, and other resources are not paying attention to student involvement, and Student Involvement Theory attests that student learning and development will suffer. As previously stated, college and university stakeholders in leadership positions must focus less on what they are doing and concentrate on what the student is doing, recognizing students' motivation level, and the level of time and effort students are committing to learning. College administration leaders must recognize the unique characteristics and preferences of international students. Regarding level of involvement in the campus community, administrators should understand the international student learning process (Astin, 1984).

Student Involvement Theory can be used by college administrators as a basis for understanding how to develop and sustain effective learning environments for international students. Student Involvement Theory stresses that a structured learning environment promotes active student participation and student learning is maximized. According to Astin (1984), student involvement is the “quality of the physical and psychological energy that students invest in the college experience . . . such as absorption in academic work, participation in extracurricular activities, and interaction with faculty and other institutional personnel” (p. 307). Later, Astin (1993) found that variables including learning, academic performance, and retention positively influences academic and faculty involvement, and student peer group participation. Astin posits that involved students study more, are seen frequently on campus, participate in student organizations, interact frequently with faculty, and engage other students. Involvement for college students equates to acceptance into a peer group. With peer group acceptance, an individual does have minimum qualities required to join the group, and the individual's beliefs, conduct, and accomplishments align with those of group members. Student-to-student interaction

helps to reinforce norms, values, and behaviors separating students from nonstudents (Astin, 1993).

Student Involvement Theory suggests how students use their time as the most critical institutional resource. When students attain goals, it is directly related to time and effort devoted to activities created producing student benefits (Astin, 1984). Westwood and Barker (1990) hypothesize first-year international students improve performance when involved in a peer-paired program as opposed to uninvolved first-year international students. ISO-supported programs, such as the International Peer Program (IPP) mentioned in Westwood and Barker (1990), could eliminate or reduce international student isolation by increasing interaction with other international students as well as with domestic students.

According to Zhao, Kuh, and Carini (2005), faculty, administration from academic and student affairs, and institutional researchers must gather additional information about international student activities so as to understand whether and where to improve international student experience. A primary concern pertaining to international student sojourn experiences is isolation and detachment from other students and the campus community. Frequently, international students find themselves isolated at some point during their study abroad experience, increasing the potential for being uninvolved over a longer period of time. An uninvolved student neglects studies, spends little time on campus, refrains from participating in extracurricular activities, and does not interact often with faculty or students (Astin, 1984).

Rendon (1994) and Rendon et al. (2000) produced research expanding on student involvement theory when they found that first semester international student survival or success requires cultural translators, mediators, and role models. Rendon (1994) discovered that validation, as opposed to involvement, transformed nontraditional students into powerful

learners, positing, “It appears that nontraditional students do not perceive involvement as them taking the initiative. They perceive it when someone takes an active role in assisting them” (p. 44). Student transformations took place when someone took interest, provided encouragement, and supported academic endeavors and adjustment. Creating a connection is not solely an individual responsibility; it is an interactive relationship between the individual and the various realms of social and academic programs of a college or university (Maldonado, Rhoads, & Buenavista, 2005).

Validation is an enhancement of Student Involvement Theory. According to Rendon’s (1994) validation model, the institutional role is critical because offering involvement opportunities is insufficient; the institution must take an active role in fostering validation of their students. Institutional culture must adapt to meet the needs of an increasingly rich, diverse student population. Through interviewing students from diverse backgrounds, Rendon offers that validation could be the missing link to involvement, and possibly a prerequisite for involvement to occur. Faculty, staff, and administrators must be proactive in reaching out to students and create activities promoting active learning and interpersonal growth among students, faculty, and staff (Rendon et al., 2000). A powerful finding of Rendon’s (1994) study is that faculty and staff can serve as agents of transition to create powerful learners who are excited about learning and attending college out of the most vulnerable students, and international students are a part of this population. Students who are involved in the academic and social fabric of an institution appeared excited about learning and met with instructors on a regular basis along with having membership in clubs and organizations (Rendon, 1994). Pritchard, Wilson, and Yamnitz’s (2007) research pertaining to college administrators’ awareness in working with international students recommended two ways to promote student acculturation. The first is to encourage

students to become involved in student organizations and secondly establishing interventions such as peer-advising or peer-support groups to provide students first-hand information on the transitions and expectations upon entering a U.S. higher education institution.

Braxton and McClendon (2002) present 20 recommendations for institutional implementation to influence social integration and retention of students. Not all recommendations are associated with international student retention, but many can be applied to the retention of international students. Lack of social integration and subsequent institutional commitment are two empirically reliable sources of influence on why college students leave. Social integration influences ensuing institutional commitment, positively affecting college persistence. One recommendation for academic advisors is encouraging advisees to establish memberships in institutional social networks through studying with other students, socializing with friends, and talking with classmates outside of class.

Bean's (1985) and Bean and Eaton's (2002) research shows how different variables affect international student experiences providing college administrators, faculty, and support staff with valuable insight for improving effectiveness when engaging international students. A primary concern of faculty, staff, and administrators should be providing and measuring the relationship institutional services have on international student attitudes toward institutional faculty, staff, and administrators as well as the institution. Positive attitude toward institutional fit, loyalty, and intent to remain until graduation are strongly related to retention. Rather than ignore the issue, institutions can develop programs and workshops to assist international students in developing self-efficacy, internal locus of control, and creating and developing a positive attitude toward school (Bean & Eaton, 2002).

Student services employees and upperclassmen play vital roles in proactive institutional support programs for new students to make smooth connections to the college or university community. Successful retention practices should concern the services provided, and how this service impacts internal student attitudes and their attitudes toward the institution. Braxton and Mundy (2001) recommend providing training for these stakeholders “to promote awareness and knowledge of appropriate resources with both Academic Affairs and Student Affairs that connect and support services in their transition process” (p. 93). A primary retention issue is quality of student interaction with a concerned person on campus and institutional commitment to student success. For example, ISOs lead international students in making connections, accessing professionals and peers in available formal and informal academic support services on and off campus. Academic support services, specifically variables used in this study including tutoring, meeting with an academic advisor, and participation in a study group on college campuses are important conduits of international student support. These services provide assistance to international students needing a professional or peer resource to promote academic or social success.

Quality of student interaction with a concerned person on campus is a primary factor related to student retention. Academic advising is an excellent way for the institution to promote faculty-student interaction. A survey conducted by American College Testing in conjunction with the National Academic Advising Association found a number of postsecondary institutions underutilizing and administrating their academic advising programs (Lotkowski, Robbins, & Noeth, 2004). Formal, structured programs are recommended to promote advising to increase retention (Habley, 2004). Faculty advisors provide information regarding courses and programs

of study and promote other campus resources and opportunities to help aid student transitions (Braxton & Mundy, 2001).

Academic advisors consist of individual faculty members and sometimes professional staff depending on institutional preference. Academic advising is integral to retention programs because of helping students acclimate. Training academic advisors is imperative. Advising is a complex academic task where thorough training and knowledge are required from someone well versed in institutional advising requirements. Advisors communicate institutional and academic expectations and requirements to students. Advising provides supplemental information regarding other on-campus resources and any referrals a student may require. Previous research from Pascarella and Terenzini (1991) acknowledges high quality academic advising demonstrates positive relationship on grades and satisfaction. A high quality advisor is characterized as having knowledge of institutional structure and function, academic policies, procedures, and programs, and other campus resources, as well as effective interpersonal skills such as listening, attending behaviors, self-disclosure, and referral. The most effective advising programs link with other on campus student services and programs (Braxton & Mundy, 2001).

According to Braxton and McClendon (2001/02), an important academic advisor role encourages advisees to investigate teaching practices of faculty members before selecting courses. Sometimes an advisor may have some formal or informal knowledge of the teaching capabilities of faculty members. Braxton and McClendon suggest that academic advisors should reference student course rating instruments especially pertaining to professors receiving high course ratings in organization and preparation along with instruction skill and clarity in recommending courses to their advisees. These teaching behaviors were positive associations with social integration and indirectly with retention. ISOs could coordinate with academic

advisors when selecting courses and professors for international students (Braxton, Bray, & Berger, 2000).

Advising is an important student academic support service. A positive experience can parlay into positive retention rates for colleges and universities. Advising and counseling must be provided to assist international students when dealing with culture shock. Western New Mexico University (WNMU) created an advising program to combat a historical institutional problem regarding traditionally high attrition rates among its freshman and sophomore students (Glennen & Baxley, 1985). Administration set a goal to increase retention rates of freshman and sophomores through a process called intrusive advising. Intrusive advising is a proactive program focusing on affairs of students.

The Intrusive Advisement program philosophy at WNMU was a university initiative for students to visit with their advisor at least four times per semester as opposed to the traditional once per semester meeting between student and advisor or waiting until the student's academic career was in serious trouble. WNMU students found frequent, consistent contact with faculty advisors and opportunities to discuss their academic and social progress along with changes in career goals, made WNMU a "secure, supportive 'home away from home' where they can comfortably pursue their academic studies" (Glennen & Baxley, 1985, p. 13). Freshmen, based upon ACT scores, were provided with tutorial services in reading, writing, and mathematics, as well as study skills workshops. The intrusive advising program at WNMU improved student retention rates and increased achievement and enrollment levels (Glennen & Baxley, 1985).

Literature on academic support services provides information about the importance of support services on college campuses and college students. Academic support services are a component of independent variables used in this study to measure international student

frequency of involvement and its relationship on GPA and retention rates of undergraduate F1 visa status non-native English speaking international students. Tutoring is an opportunity for students to receive individualized or group instruction outside of class by a tutor, who is typically recommended by a professor, and considered a role model student. These candidates are screened and selected based upon academic performance criteria and subject knowledge. Most tutors participate in a tutor training program and are evaluated regularly by tutor coordinators, instructors, and peer tutors (Maxwell, 1990).

Some students seeking tutoring need more intensive assistance not found in small group learning environments. Tutoring fills a gap when the instructors lack the time or resources to offer in-depth individual sessions or group tutoring. Tutors are available at most institutions of higher learning and depending on institutional policy, tutoring is usually included with the price of tuition or the student pays a fee to work with a tutor. During the 1960s when U.S. institutions of higher learning started admitting larger numbers of low socioeconomic status students, tutorial services were one of the first academic support programs instituted on a large scale to help students. By 1970, most tutors were undergraduate students (Maxwell, 1979).

Peer tutoring is a method used where student tutors help other students having academic difficulty and is a popular student support service used on many college and university campuses. The stigma associated of needing help keeps some students, especially international students from using tutors. Almost all institutions of higher learning offer individual content tutoring where a student can meet a tutor one-on-one for individualized instruction, and over half use group tutoring services. Instances exist where colleges and universities use tutors for special populations such as student-athletes and deaf students (Maxwell, 1990). It is difficult to prove the effect of frequent tutoring on grades and overall GPA. Typically, the weakest students use

tutors more frequently. Research done by Watanabe and Maxwell (as cited in Maxwell, 1979) suggests if underprepared students receive tutoring at least once per week during the semester and obtain a tutor early enough in the term, they will earn higher grades compared to students with equal abilities who are not tutored.

While concrete quantifiable evidence is minimal in regards to the value of tutoring on student outcomes, perceived benefits make the availability of tutoring alluring to international students. International student support such as English as a Second Language (ESL) programs use peer tutoring and teacher's aides to work directly with international students (Ramsay, Barker, & Jones, 1999). Houston (1976) hypothesizes peer tutors humanize the international student's learning experiences by creating a positive learning environment and reducing stress as opposed to the traditional classroom structure creating a commune of non-English speakers where the ESL professor is an authority figure (Maxwell, 1979).

Ramsay et al. (1999) conducted research at Griffith University with first-year international and domestic students attempting to understand university student experiences that help or hinder learning. Twenty volunteers were solicited from among students in freshman classes. Each student was interviewed toward the end of his/her year of study, and a second time at the beginning of their second year of study. Twelve participants were domestic students and eight international participants. Students were asked specific questions regarding positive and negative critical incidents that related learning in their first year of study. From the international student perspective, support offered by the Learning Assistance Center (LAC) was helpful and examples of international student use of LAC services include tutors and tutorials, critical analysis and English skills. An international student responded how a tutor can "bring you in" to the local culture and political environment through explaining specific events (Ramsay et al.,

1999, p. 136). From an individual standpoint, tutoring is valuable for international students to socialize with host culture members, communicate in host language, and learn more in these interactions than just academics.

Research on the effectiveness of tutoring spans only the past 50 years because typical tutor arrangements were private and informal and assumptions made that if professors tutored, students would learn. A consistent finding from the research of Allen (1976), Bloom (1976), and Gartner, Kohler, and Riessman (1971), is that structured tutoring (working on specific, pre-diagnosed skills and content), used appropriately, results in learning gains for tutees. Bloom (1976) found when using structured tutoring 80% of the studies resulted in significant results. Hedges and Majer (1976) conducted a longitudinal study of a group of students at the University of California at San Diego who were being tutored by “outstanding junior or senior mathematics or science majors” (p. 7). Each tutor was given three students to work with over a ten-week quarter and 85 tutored students were compared with 85 students who were not receiving tutoring. Findings show statistically significant differences between tutored and non-tutored students in cumulative GPA improvement between freshman and sophomore years and also in persistence at the end of sophomore year when high school GPA and SAT scores were controlled (Hedges & Majer, 1976). (Carman, 1975; Hedges and Majer (1976); Koehler, 1987; and Vincent (1983) suggest students receiving tutoring remain in college longer, since tutors are encouraging students to continue their education or that students who seek tutoring are increasingly motivated to finish college.

Regarding the relationship between tutoring and retention, people using tutorial services were asked whether they would have dropped the course without tutoring. Woolley (1976) studied a random sample of 424 community college students who received more than ten hours

of tutorial assistance and 85% of the research subjects affirmed their achievement level did improve after tutorial assistance while 57% reported they would have dropped the course without tutorial assistance (Maxwell, 1979). Literature on tutoring and its effectiveness is available, but is lacking when it attempting to measure the impact tutoring has on academic and social effects of international students.

Another challenge for international students is participation in extracurricular activities that are semi-formal and formal institutional activities linking to the social and academic systems of the college (Tinto, 1975). Three extracurricular variables: participation in intramural sports; participation in clubs and organizations; and participating in off-campus excursions were selected to better understand relations of involvement on the outcome variables. Most international students are from large cities and can have a difficult time in small college towns unless the institutions have extracurricular activities to supplement their educational programs (Byrd, 1991).

Bochner et al. (1977) conducted some of the earliest research looking at international student involvement in participating in activities. The authors created an academic sojourn research model predicting that international students belong to three social networks to measure friendship patterns of international students. Thirty-six participants were included, and while the study focuses on one variable (friendship patterns of international students), the study does incorporate a “Companionship” Check List (Bochner et al., 1977, p. 282) with extracurricular categories including: Shopping, Swimming, Picnic, Sports, Library, Concerts, Cooking, Drinking, Late evening snack, Just talking, Just being with, Getting help with a language problem, Getting help with an academic problem, Getting help with an emotional problem, and Getting help with an interpersonal problem. Within this social psychological model participants

were given a list with 15 activities and they had to choose someone with whom they preferred to participate in an activity from one of three social networks. If at least 40% of participants selected one of the three social hierarchies, the activity was defined as conational, domestic student, or multinational. Results show conational companion was the preferred social network when participating in Cooking, Shopping, Needing Emotional help, and Sports; domestic student companion was found in Language Help, Academic Help, Just Talking, and Interpersonal Help social networks; and multinational was found in the Just Being with social network category. Remaining activities were in a rectangular distribution and anyone can be involved in these activities without the need of one particular cultural group.

Hood, Riahiinejad, and White (1986) reported a positive relationship between participation in campus activities and student confidence. Students were queried on active participation in college activities including: campus activities and organizations, cultural events, recreational activities, and part-time and summer work experiences. Significant positive relationships were found between participant growth in confidence and participation in extracurricular and recreational activities.

Toyokawa and Toyokawa (2002) explore relationships between the extracurricular engagement of Japanese students studying in the U.S. extracurricular engagement and their academic involvement, psychological health, social support, and active use of leisure time. Participants were 84 Japanese students in the U.S. for a ten-month period. For most, it was their first experience living in another country more than six months. International students with higher extracurricular participation scored higher in life satisfaction, were more academically involved, and believed they received additional benefits from academic and extracurricular activities. Engaging in extracurricular activities is a valuable opportunity for international

students to make connections with domestic students. Although academics are valued above non-academic goals, international students do have non-academic goals, motivations, and interests. Developing social networks and skills to join those networks, learning the domestic student culture and values, and improvement in adjustment to the host country through out-of-class engagement, are ways international students can achieve non-academic goals.

Physical activity is a component of some extracurricular activities. Yoh, Yang, and Gordon (2008) conducted a research study examining how often international students engaged in physical activity. Participants included 521 international students from five universities in the Midwestern U.S. The researchers' purpose was measuring weekly how often international students engaged in physical activity. Physical activity benefits are well known and international students are not as actively engaged as domestic students because of critical issues of living in a foreign country including: communication, adjusting to the campus, establishing their identity, financial worries, displacement from familiar social support systems and loneliness (Arthur, 1997; Brinson & Kottler, 1995; Das, Chow, & Rutherford, 1986). International students from Asian and African countries need more time to adjust to Western culture and when academically successful, it increases self-confidence to engage in other activities. Results show international students in the U.S. spent an average of three hours and 40 minutes per week engaged in physical activities. Students from North America spent the most time engaged in physical activity while Asian students spent the least amount of time (Yoh et al., 2008).

Researchers have promoted the benefits of small group study for college students. Gilles and Ashman (2003) posit that small-group work is a key component in academic learning. Jacques (2000) findings on small group study advised professionals not to underestimate how students participating in a well-run group can experience a strong sense of identity and feelings

of belonging. Gardner and Jewler (1992) found when students achieve a personal sense of belonging with individuals or groups on campus it is an important factor in retaining students. Spadling, Ferguson, Garrigan, and Stewart (1999) found the learning process is enhanced when students work together in a socially cohesive group. Tinto, (1975) found study group learning serves as one of the limited points of personal contact between student and university. When individual students have opportunities to work in groups, it provides valuable resources for self-development, interpersonal growth, and support. Within these groups, students are exposed to learning and experience cooperation, creative disagreement, excitement, and enthusiasm about shared tasks (Cartney & Rouse, 2006).

Students in the research study of Ramsay et al. (1999) mentioned benefits of working in independent study groups. Students pooled resources, had equal say into the direction of discussion topics, and profited from expressing and listening to different student perspectives. Study groups were seen as motivating students to continue study. Student-initiated study groups provided social, informational, and practical support. When combining these three types of support, positive contributions are made to academic adjustment and learning processes. Cartney and Rouse (2006) used mini conferences as part of implementing their University's Learning, Teaching, and Assessment Strategy showing the relationship of small group learning on student progression and retention. The first mini conference theme pertained to enhancing student progression and retention. Cartney and Rouse's research focuses on enrolled students participating in study groups led by a faculty member. Taylor and Bedford (2004) suggest that faculties' attempts to help students understand group learning processes are an important factor in promoting student retention.

International student mentoring programs are a proactive retention strategy to bring about improved understanding of institutional culture and norms. Mentoring reports from Burke (1984), Fagenson (1989), Noe (1988), and Shapiro, Haseltine, and Rowe (1978), found planned mentoring in university environments is successful assisting underrepresented people in unfamiliar systems. Mangold, Bean, Adams, Schwab, and Lynch (2003) and Padgett and Reid (2003) found that programs building mentoring and support groups improve student involvement, motivation, and academic self-confidence leading to increased institutional commitment and engagement. Social support is extremely important to students who are a long way from home. Mentors can be instrumental to campus acclimation, especially for international students (Hayes & Lin, 1994). A college or university with a social support network such as a mentoring program increases the level of comfort for some racial and ethnic minorities who attend predominantly White institutions (Griffin, 1991; Kimbrough, Molock, & Walton, 1996). Mentors provide students positive services “with support, information, and referrals to university services” (Bean & Eaton, 2002, p. 83).

Institutions are becoming more sensitive to international student needs. Mentoring programs, such as International Peer Program, are part of the institutional response incorporating international students to improve their retention rates and grades, the two criterion variables in this study. A mentoring program addresses some primary causes of international students leaving college including lack of preparedness for college, lack of knowledge or access to social or academic resources, and void of a college environment comfortable for student matriculation (Gavin, 1989; Stampen & Cabrera, 1988). Similar to social integration literature (Thomas, 2000; Tinto, 1975), the mentoring literature (Redmond, 1990; Schwitzer & Thomas, 1998) reinforces human interactions as critical. Mentoring is an appealing approach for meeting student needs,

especially at-risk students. The two major components of mentoring are transfer of marketable skills, behaviors, and attitudes, and secondly promoting social and emotional interaction allowing transfer of skills and knowledge (Hill, 1989; Schochett, 1985). Effective mentoring has a level of interaction, trust, and communication resulting in psychosocial comfort empowering students with knowledge and confidence to develop and nurture academically and socially (Redmond, 1990).

A mentoring program provides students positive institutional associations because students see first-hand that faculty, staff, and administrators care about their well-being. Effective mentoring programs involve transfer of knowledge and provide mentors a skill set to include dealing with different attitudes and behaviors. Mentors reinforcing these attributes allow student empowerment to flourish academically and socially. If growth does occur, odds improve of student persistence at the institution (Redmond, 1990).

Institutional commitment to the areas of retention, mentoring, and diversity are necessary for implementation and success of mentoring programs. Administrative commitment can be in the form of policy statements, financial support, hiring of personnel, and adequate space. Administrators can also help a mentoring program gain vitality and stakeholder buy-in through making public statements about program progress, becoming mentors themselves, and assisting in recruitment of faculty members to serve as mentors. Including mentoring as a service activity for faculty promotion and tenure provides a cue that university administration places high importance on the mentoring program. Mentors serve as a vital institutional resource by providing in-depth information regarding locating and referring mentees to use student support services and navigate their college environment (Redmond, 1990). The institution's role is providing new students with mentors (Bean & Eaton, 2002). Retention of special populations

including international students can increase when faculty are sincere in believing all students are capable of learning and have the potential to learn (Rendon, 1994). Interacting with faculty and improving learning can help international students increase self-confidence and develop academic self-efficacy. Faculty can provide an environment of gender and racial diversity in their classroom allowing comfort and support to international students. These components are factors defining how institutional commitment, faculty interaction, and mentoring can improve retention rates of international students (Bean & Eaton, 2002).

People of color and international students on a predominantly white campus face unique challenges and therefore need clear access to campus resources. Common issues include: cultural stereotypes, lack of recognition, limited resources, political issues, discrimination, prejudice, learning about domestic diversity, and cultural oppression. A valuable tool supporting success of underrepresented populations in unfamiliar systems is planned mentoring. This type of mentoring addresses causes as to why culturally diverse students leave an institution before graduating. Mentoring interactions promote tact, communication, and understanding between students and faculty (Bennett & Bennett, 1994). Research conducted by Redmond (1990), along with Schwitzer and Thomas (1998), show access to a mentor leads to positive interactions, improving students' academic achievement and increasing retention. Schwitzer and Thomas's (1998) mentoring research involves African-American students enrolled at a predominantly White university. This population participated in a freshman peer mentor program and received peer counseling from upperclassmen student mentors. Counseling was in place to answer questions about first-year adjustment. Freshman in the peer mentor program had higher two-year retention rates than nonparticipants.

Planned mentoring in an academic setting attempts to increase mentoring opportunities for students from varying cultural backgrounds. Trujillo (1986) found students culturally different from European-American male faculty are unlikely to engage in a mentoring relationship with a faculty member. Allen's (1981) undergraduate African-American student participants reported having a difficult time relating to Caucasian faculty and perceived that Caucasian faculty usually avoided students outside of class. Therefore, a key outcome for planned mentoring sessions is breaking down cultural walls that could potentially derail a faculty-student mentoring opportunity (Redmond, 1990).

Mentoring programs are one component in improving retention rates on college campuses. Tinto (1982) asks how far college administrators should go to find avenues improving retention rates and implementing policies leading to a reduction in the rate of students leaving school. Tinto focuses on finances and the dropout of specific populations of students. Tinto's student attrition research questions why students drop out of school and how attrition varied between students of different genders, races, age, and social status. One of the limitations of his study, as well as others (Pascarella et al., 1987), was its focus on retention among Black and White students and none pertaining to international students. Yet, Tinto's findings provide insight on retaining international college students because of similar circumstances (i.e. prejudice, racism, attending predominantly white colleges) between students of color and international students. Central themes to Tinto's (1982) research are the nucleus of value orientations and social skills for minority student success. Programs integrating "individuals into the mainstream of the academic and social life of the institution in which these programs are housed" tend to be the most effective programs (Tinto, 1982, p. 692). Marginalized individuals or groups rarely succeed, as integration is an essential element in one's persistence to graduation.

From the educational perspective, integration is equivalent when applied to individuals and programs serving individuals (Tinto, 1982).

Sedlacek and Brooks (1976) state non-cognitive dimensions including positive self-concept, dealing with racism, and demonstrated community service are as important and possibly more important to successful college environment adaptation for racial and ethnic minorities. Later research (ACE, 1998; Tinto, 1993; Tracey & Sedlacek, 1987) hypothesized that college adaptation differs for racial and ethnic minority students compared to white students. Additional research (Feagin, Vera, & Imani, 1996; Gloria, Robinson Kurpius, Hamilton, & Willson, 1999; Solberg & Villareal, 1997) indicates quality of life within the university environment, perceptions of social support, and self-efficacy were significant persistence influences of racial and ethnic minority students.

Typical mentoring programs working with students of color and international students meld the tasks of providing information about freshman transition, creating relationships of social support, and attracting students in need of early support. The Student Counseling Center housed the peer mentor program in the Schwitzer and Thomas (1998) study. Mentors were upperclassmen multicultural students in good academic standing and recruited through campus advertising. Some received stipends while others volunteered. Before participating, mentors were trained in peer counseling and program procedures. Freshman participants were recruited through mailings over summer and during summer orientation. A total of 52 volunteers joined the peer mentor program. The participant group was compared with a nonparticipant group of African-American freshman on the basis of precollege academic variables including SAT math and verbal scores along with high school GPA. Results showed those participating in the peer

mentor program had a positive association with improved academic achievement and higher retention rates (Schwitzer & Thomas, 1998).

Properly planned programs, such as those offered by ISOs, can improve college adjustment for international students. Evidence in the literature of successful programs geared toward international college students includes Westwood and Barker's (1990) study on a peer-pairing program where new international students were partnered during their first year with a host culture student who had undergone mentor training for the program. The research purpose was to determine whether there was a relationship between participation in a peer-pairing program at two colleges and academic achievement, dropout rates, and social adjustment of international students who did not participate in the program. Westwood and Barker recognized international students' desire for social contact with host culture students and how direct contact reduces problems international students encounter. Lonely and homesick international students often were isolated from host culture students. The peer-pairing program could promote contact between these two parties and host culture interaction is vital to the social and academic success of international students. The research hypothesis was that international students who received these benefits would be more informed, less disoriented, and less isolated resulting in lower failure rates.

Tinto (1982) posits college administrators should focus primarily on students' skills, abilities, interests, and commitment to obtain a college degree. IPP programs can support efforts to strengthen each of these areas. Westwood and Barker (1990) results show international students who participated in an IPP program were less likely to drop out of school and had significantly better grades than non-participants. Volunteer domestic student students had frequent ongoing interactions with international students to assist becoming more familiar with

university and residence life. Institutions should encourage these informal contacts and the IPP program is an innovative support program making an impact on not only international students lives, but on host culture students as well, leading to an improvement in both populations' retention rates (Abe et al., 1998).

In Westwood and Barker's (1990) longitudinal study taking place over three years, 25 international students who participated in the IPP were compared with 25 international students who did not participate. The following year, 41 peer-paired international students were compared to 41 international students not in the program, and the final year of the study had 31 peer-paired international students with 31 non-paired international students. Each peer-pairing program lasted for eight months. Peers were recruited from the student body and trained. Roles of peers included being cultural interpreters, facilitators and information givers, referral agents, confidants, and friends. Peers were matched to their international student through a criterion including gender, language used, age, major, hobbies and interests, country of origin, and other individual differences. Mentors met with their peers at least twice a month in academic environments and informal environments such as invitations to family gatherings, attending parties, going out to restaurants, etc.

Results showed higher achievement and lower dropout rates for program participants. First year results showed academic averages were significantly higher ($p < .01$) for those international students who participated in IPP (peer group) compared to those who did not participate (control group). Out of the original 25 study participants, 24 peer group participants completed their first year of study while 18 international students from the control group completed their first year of study. Similar academic grade results were found in year two of the study ($p < .001$) and the percentage of participants requested to withdraw from school was a

higher in the control group (9.6%) than the peer group (2.4%). During the third year, participants in the peer group had higher levels of academic achievement ($p < .01$) and lower withdraw rates (3.2%) compared with the control group (22.4%) rate and in year four, where peer group withdrawal was zero while 8.1% of the control group left. Westwood and Barker's (1990) results positively predict a relationship of international students who participate in IPP having higher achievement rates and lower dropout rates.

One finding of the IPP research hypothesis shows participants gained information in understanding functionality in their new environment and more importantly international students learned the unwritten culture codes. Findings show college administrators how mentoring programs fulfill ISO missions by providing opportunities and avenues to improve international student access and knowledge of academic and campus culture (Westwood & Barker, 1990).

Abe et al. (1998) continued the research of international college students who participated in an International Peer Program (IPP). The Offices of Residential Life and International Student Services at a Midwestern public university implemented the IPP program over a semester. IPP program paired interested international students with returning student volunteers. Mentors interact continuously to enlighten international students about institution and residence hall nuances (Abe et al., 1998).

Students participating in the second IPP study were new graduate and undergraduate students. Analysis of the study show campus resource use of 28 IPP participants' along with their Student Adaptation to College Questionnaire (SACQ) scores were compared against 32 non-IPP participants. Researchers developed a three-page self-questionnaire consisting of demographic data of sex, age, region of origin, academic status, major, and whether international students

were living on or off campus. Participants were asked about their decision to attend that specific institution of higher learning and whether it was their first choice. Each IPP participant answered seven statements on a Likert-type scale referring to knowledge on U.S. culture, knowledge of campus services, comfort level in asking faculty members for assistance with academic and personal matters, satisfaction with residence hall facilities and staff, and whether they believe the institution is committed to working with international students. Finally, there were sixteen questions pertaining to frequency of using specific campus resources and participation in specific campus activities. Results found international students participating in the IPP program had significantly higher overall adjustment scores, as compared to non-participant international students. Research findings show a relationship between international student involvement in organized campus programs and improving overall international student adjustment scores (Abe et al., 1998).

A more recent evolution of mentoring research is the Student-Initiated Retention Project (SIRPs). SIRPs are unique to the body of mentoring literature because the organization is student driven as opposed to administration led. Student organizations unite and develop programs and support services run by students, organized by students, and funded by students. Priority is placed on serving students of color, but limits are not placed on who is served.

Three key components of SIRPs are first developing knowledge, skills, and social networks; second is building community ties and commitments; and third is challenging social and institutional norms. By challenging social and institutional norms, SIRD organizers encourage cultural norms more aligned with those of their own ethnic communities. These practices lead to improved retention rates of international students and overall student success. SIRPs connect student engagement and success to social praxis defining successful students as:

those students who work for the greater social good and, in particular, help racial and ethnic communities achieve quality in higher education . . . encourages students to engage collectively in changing colleges and universities so that they better meet the needs of students of color (Maldonado et al., 2005, p. 629)

Evolution of SIRPs began in the early to mid-1990s influenced by Tinto and Tierney research promoting development of student connections with communities of color and improving student retention. The goal of SIRPs is increasing retention and academic success of students of color (Maldonado et al., 2005).

While international student interaction through mentoring programs with domestic students enhances academic success, finding a support group based upon cultural background can increase self-esteem. Students involved with SIRPs joined a social network offering resources usually reserved for powerful campus organizations such as fraternities and sororities. SIRPs develop cultural identity and promote student community leading to successful retention programs. Two institutions with established SIRPs were examined in Maldonado et al. (2005), The University of California at Berkley and The University of Wisconsin at Madison. Fall 2003 saw 56.5% of the University of California at Berkley undergraduate population consisting of students of color. Student-Initiated Retention Project (SIRP) supporting UC-Berkeley students was *Bridges* (Maldonado et al., 2005), a student operated multicultural center serving the dual purpose as a recruitment and retention center. UW-Madison program was one of the largest student run and student funded organizations in the U.S. with an annual (1999) budget of one million dollars.

Kuh and Love (2000) view “student departure” (p. 196) through a cultural lens and in an attempt to use culture as an analytical framework for retention, created eight cultural

propositions relating to premature student departure from a cultural perspective. The first proposition focuses on the individual's understanding and participation in an institution's culture. Structure or organizational properties of an institution do not cause student departure. Affective and behavioral responses are determined by how the student processes these two properties, or their *meaning-making system*. Meaning-making system is promoted by culture of origin and is influenced by family, school, community, and other factors. The second and third propositions recognize various cultural backgrounds seen on college campuses including overlapping multiple cultures. When one's cultural values place prominence on obtaining a college degree, persistence is encouraged. Cultural forces can help an individual persevere, provide motivation, and aspire even when facing obstacles such as studying in a foreign country.

Within the literature, a substantial amount of information is available on retention addressing major retention theories, retentions relationship on international students, and higher education issues of international student retention. Over the past forty years, retention has sustained its significance within the walls of the ivory tower; especially among tuition driven colleges and universities. Studies on retention have frequently focused on comparing retention rates of students based upon various variables including gender and race (Murtaugh, Burns, & Schuster, 1999). It should be noted that much of the early research on retention was conducted by Caucasian males and focused on White males. Some of this was before people of color became integrated into predominantly white college campuses. Few students of color resulted in smaller sample sizes or sample exclusion (Belenky, Clinchy, Goldberger, & Tarule, 1986; Tierney, 1992). However, Tinto's departure model (1975, 1987) is valid for all students and Tinto's (1993) research even mentions the importance of supportive student communities for people of color through building inclusive campuses.

Literature on college student retention has focused on four themes. First, examining the relationship between precollege characteristics of freshmen and success by looking at high school GPA and SAT scores, precollege qualities, and test scores does not explain every reason students leave college (Murtaugh et al., 1999). Next, Astin (1993) attempts to understand why students leave college and provide recommendations to institutions for reducing the rate of student departure before graduation. Astin (1993), Tinto (1993), and Naretto (1975) suggest students persist when actively involved in campus programs and have a sense of connection to the institution and community. As a result, schools have implemented or enhanced support programs to increase student connection to the institution. Third, Dodd et al. (1995), Johnson (1996), and Person and Christensen (1996) describe and evaluate specifically designed campus retention programs and determine whether implementation improved retention rates of students and specific student populations.

Van Gennep (1960) research focused on tribal societies and *rites de passage*, rituals moving individuals from one developmental level to a higher level through a three-phase process of separation, transition, and incorporation. Separation occurs when a person becomes separated from friends and family and there is less contact with members of these groups. Transition is when a person begins to connect in new ways with a new group where the person desires inclusion. Incorporation is the final stage where a person has new group interaction patterns and is now a card carrying member of the group. Interaction still occurs with the old group, but he/she joins a new group (Van Gennep, 1960). College attendance is one of those rites of passage in U.S. society. Tierney rejects the assumption a ritual of transition is required for successful student transition to college and wants activities promoting identities, homes, and communities where students live and are nurtured. Using this approach, teachers, programs, and institutions

communicate high expectations to students and create an in-class environment where everyone is empowered to learn and succeed (Tierney, 2000).

William Tierney promotes an alternative model for retention to Tinto's SIM based upon institutions of higher learning being viewed as multicultural entities. According to Tierney (1992), there are three major benefits to college student retention. First, students will be able to profit long-term from obtaining a college degree. Next, the college or university will sustain the income deriving from the student's tuition, fees, room and board, etc. Finally, society will benefit from college graduates and their skills. In this scenario, every stakeholder benefits from retaining students.

Tierney takes an anthropological perspective in analyzing Tinto's retention model. Social integrationists, such as Tinto, assume all cultures are similar and the institution is a reflection of society, while theorists from the anthropological side, such as Tierney, emphasize that the "individual" as the determinant of "group" or "culture" is backwards. He attacks Tinto's basic premise that individuals must adapt to institutional values in order to successfully immerse themselves and argues Tinto "has conceptualized college-going at the individualist level rather than a collective one" (Tierney, 1992, p. 610). Tierney claims Tinto's model is an assimilationist framework where the expectation of marginalized students is conforming to institutionalized norms and values that are typically those of the host culture. Historically speaking, the American higher education system has catered to Caucasian males from high socioeconomic families. Therefore, White society, being the dominant society in the U.S. is also reflected in the U.S. higher education system (Tierney, 1992). Tierney believes Tinto's use of culture as a framework is a beginning point and needs further development. Tierney's goal is moving theory away from

the social integrationist perspective toward a framework of emancipation and empowerment where multicultural environments can flourish (Tierney, 1992).

Boyer and Sedlacek (1988) used the Noncognitive Questionnaire (NCQ) to predict international student grades and retention. The NCQ was originally developed by Tracey and Sedlacek (1984) for predicting minority academic success, but is valid for use in the aforementioned regard. Tracey and Sedlacek developed the NCQ to measure eight non-cognitive variables found by researchers studying attrition and retention that relate to college grades and persistence. The eight non-cognitive variables are: self-confidence, realistic self-appraisal, community involvement as service, knowledge acquired in a field, successful leadership experiences, preference for long-term goals over short-term goals, the ability to understand and cope with racism and the availability of a strong support system to talk to in times of crises. The NCQ was administered to all matriculating international freshman who attended orientation and consists of 23 items; 18 Likert-format items, two multiple-choice items about educational aspirations, and three open-ended items pertaining to present goals, past accomplishments, and other activities. Results showed consistent prediction of GPA across eight semesters using the variables of self-confidence and availability of a strong support system. A number of variables were consistent ($p < .05$) toward persistence and the community services and understanding racism were most consistent. Boyer and Sedlacek conclude there needs to be a wide range of student services programs for international student success such as individual counseling or mentors to help improve grades and activities and racism workshops can increase international student persistence.

One of the earliest and most widely accepted retention research theories is Spady's (1970) article synthesizing previous research regarding college student retention and creating

new directions for the field. Focusing on the intellectual approach, Spady's research concentrates on student attributes and their relationship with the institutional environment including both academic and social contexts. Spady suggests flaws appeared in previous research because most researchers failed to ask questions of how and why the variables used accounted for performance differences affecting retention when performance levels were held constant. Spady defines and measures two separate characteristics of a college dropout. First characteristic is anyone leaving a college in which they are registered and can be further analyzed as a student leaving their first enrolled college environment. The second characteristic is a student never receiving a college degree. Some students voluntarily leave while others leave because of affordability, changes in family situations, academic problems, health issues, or disciplinary reasons. When using college grades to predict retention, Spady believes this can only be done if the issue being looked at is failure and dismissal from the institution.

Retention rates are a composite reflection of individual decisions. Successful retention programs must work for every student. Bean and Eaton (2002) propose a retention model based on psychological processes leading to academic and social approach-avoidance theory, attitude-behavior theory, self-efficacy theory, and attribution. According to the authors, these four theories, that are individual in nature, form the foundation for retention decisions with academic and social integration as components of retention theory. Bean and Eaton state successful retention programs such as learning communities, freshman interest groups, tutoring, orientation, etc., each rely on psychological processes that do not differentiate based on gender, ethnicity, or age.

Rhodes and Nevill's (2004) research posits that viewing retention from the perspective of it as being an "educational issue" (p. 189), there is the potential of integrating wider ranges of

students to achieve improved academic and social integration. First, enrollment management recruitment activities and publications are institutional attempts bringing prospective students to campus, and as is the competitive nature of college recruitment, each institution wants to display its best qualities. Accurate portrayal of social experiences and the social climate to prospective students is important because lack of social expectations is a chief cause in college student attrition. Student college selection is based upon expectations of meeting their academic and social structure needs while attending. Fulfillment of these expectations can improve college students' social integration and institutional commitment. When college student expectations are fulfilled, the student's social integration is greater (Helland, Stallings, & Braxton, 2002).

Another enrollment management facet to improve college social integration is encouraging prospective campus visits before making a final decision. This is not feasible for most international students; many enroll with a disadvantage of not seeing or experiencing the campus environment until physically being at campus to start school. Expectations could be unmet leading to higher international student departure rates. Contrasting the international student visitation experience is a domestic student who has visited the campus, toured buildings and grounds, spoken with faculty and other students spent a night in a residence hall, etc. Collegiate expectations, then, are to a certain extent ambiguous for most international students and they do not have on-site visitation experience necessary to assess colleges and universities and determine whether or not to participate in the academic and social communities (Braxton, Vesper, & Hossler, 1995). Finally, receiving some form of financial support promotes social integration of first-year students. Unless international students receive assistance from their home country, receiving financial aid is rare due to U.S. federal aid laws excluding foreign students (Cabrera, Nora, & Castaneda, 1993).

Student orientation and student affairs programming also promote college social integration. Pascarella, Terenzini and Wolfle (1986) describe student orientation goals as informing students of administrative and academic regulations, promoting student organizations and activities, educating about available student services, and assisting students with selecting fall semester courses. According to Pascarella, Terenzini and Wolfle (1986), students who participate in orientation activities promote social integration creating a positive indirect effect on persistence.

Beal (1980) conducted a study to examine how institutions of higher learning could raise retention rates through improving institutional services. A joint organizational project was implemented in 1978 through the National Center for Higher Education Management Systems (NCHEMS), the American College Testing Program (ACT), and a national survey titled “What Works in Student Retention” (WWISR) (p. 60). The idea behind the survey was to identify, analyze, and compile information about campus efforts to improve student retention in higher education. Self-report information from colleges and universities served to document what was being done to improve retention and evaluate the results.

The administration of the WWISR was undertaken during winter 1978-79. Postcards were mailed to 2,459 college and university presidents asking each to designate a representative from their institution to receive and complete a questionnaire. More than 990 completed questionnaires were returned, and 947 were usable. Findings indicate improving institutional services could enhance student retention. Positive results were seen when institutions focusing on retention developed new programs and modified existing ones. The most frequent type of program (24%) of the participating schools involved learning skills and academic support systems. More specifically, the two highest scoring services were personal tutoring and advising.

The data collected by the WWISR provide evidence that learning and academic support programs have a positive relationship on retention. The top 50 programs measured in this research study showed a retention improvement of 10% or more, seventeen programs were in the learning and academic support system area (Beal, 1980).

Bean's (1985) retention model is based upon theories of socialization and he presents a conceptual model of dropout syndrome where academic, social-psychological, and environmental factors are anticipated to influence one academic, one social, and one personal factor from the socialization/selection process. Academic factors deal with influences among college grades. Social-psychological factors are positive influences on institutional fit. Commitment and environmental factors should directly relate dropout syndrome through a negative influence on institutional fit and commitment. There are two social-psychological variables posited to affect college grades: faculty contact and institutional fit. Faculty contact should enhance communication regarding the importance of cognitive rationality resulting in improved performance and grades. College grades are an indication of a student meeting the behavioral and academic goals of faculty members (Bean, 1985). According to Pantages and Creedon (1978), grades do influence attrition and therefore retention, and they found academic performance consistently had high correlation with college grades. Astin (1975) found undergraduate student GPA was more closely related to persistence than any other variable used in his study on dropouts.

Bean's (1985) research determines that grades have a significant impact on what he refers to as dropout syndrome. He mailed a questionnaire to 5,235 college students who met the following criteria: White, U.S. citizens, 23 years old or younger, unmarried, registered for 10 or more credit hours in the current semester, and were members of the freshman, sophomore, or

junior classes. From the returned surveys 1,406 were used in his study. Two academic factors, pre-matriculation academic performance and academic integration, resulted in significant variance on college grades. Bean suggests selection is more important to college grades than socialization because pre-matriculation academic performance is consistently larger in influence than academic integration. Bean's model views academic integration as a precursor to academic success, rather than the result of academic success.

The second critical aspect of socialization is institutional fit, whether students are comfortable in their college setting and selection. A student "fitting in" (Bean, 1985, p. 39) the institution, especially regarding the social domain, means they value and maintain college membership. Active social life can compensate for lower academic achievement through participation in extracurricular activities because of the linkage to college social and academic systems and may reduce strain between systems. If the group association is averse toward academic achievement, there is a negative relationship to students' grade point average (Tinto, 1975). Retention is affected by student peer culture as seen in Bean's Student Attrition Model (1980, 1982, 1983, 1990) and Tinto's Student Integration Model (1975, 1987, 1993). Both models concur on student institutional commitment being affected by peers' attitudes and pressures. Bean further states encouragement by close friends may reinforce a sense of commitment to the institution, a practice he terms as institutional quality and fit.

Bean assumes that students who believe that they fit in value their membership and maintain status. During freshman year, Bean (1985) found institutional fit was the greatest factor in influencing dropout syndrome, supporting Rootman's (1972) model which states "voluntary withdrawal is caused directly by the degree of 'actual interpersonal fit' of the individual and directly and indirectly by the degree of 'person-role fit' of the individual, each of which is

independent of the other” (Rootman, 1972, p. 265). Pertaining to academic variables, higher levels of academic integration should increase institutional fit. Bean found academic integration was a consistent influence on institutional fit. From a social-psychological perspective, a student’s ability to use their education as a launching pad for a career, interact with faculty, and have a healthy social life should increase institutional fit. Alienation, along with lack of finances, opportunity to transfer, and a boyfriend or girlfriend being outside of the school environment can reduce institutional fit (Bean, 1985).

Bean’s (1985) investigation on dropout syndrome continues his research by looking at institutional fit from the socialization perspective within a college setting, where institutional fit is an assumption that students who believe they fit in are more likely to value and maintain membership at a particular college. Findings suggest social life has the most effect on institutional fit implying fit is more closely related to interaction within peer groups as opposed to interaction with faculty members. Correlating with Spady’s (1970) research on friendship support, Bean’s (1985) research suggests peer interaction is the primary framework for college student socialization and a key component of retention. These findings provide evidence why institutions should support providing additional services and encourage socialization. Since social life is such a critical aspect in institutional fit, ensuring international students accessibility to socialization opportunities in order to promote institutional fit should be of primary concern for colleges and universities.

Everyone has unique experiences, abilities, and self-assessments. Traditional college students enter an institution with psychological attributes developed from their formative years. The most important psychological factors are self-efficacy assessments, normative beliefs, and past behavior. When students believe they are efficient and intelligent enough for college

success, their self-confidence increases as does their levels of persistence, task achievement, and ability to create goals for higher task achievement. As academic and social self-efficacy increases, so does academic and social integration. This psychological response leads to increased sense of campus integration as well as a more focused student attitude. Institutional fit and institutional loyalty are very important. If students believe they made a correct college choice and fit in at the institution, then social integration has occurred and persistence increases. Academic and social integration are key components in retaining and graduating students (Bean & Eaton, 2002).

Previous studies on international students are available where moderation is used as a statistical method. A moderator can be a qualitative or quantitative variable affecting direction and occasionally strength of the relationship between a predictor and criterion variable (Baron & Kenny, 1986). Using a correlational analysis framework, a moderator is a third variable affecting the zero-order correlation between two other variables. Another type of moderator effect occurs when the direction of the correlation changes. An example of moderation comes from the research of Stern, McCants, and Pettine (1982), where the relationship between life changing events and severity of an illness had a stronger positive relationship when an uncontrollable event occurred (e.g., death of a spouse), as opposed to an event under one's control (divorce). There were no findings of moderation and it was hypothesized moderation would occur if life events under one's control reduced potential for illness because if the direction of the relation between a life changing event and illness would change from positive to negative (Baron & Kenny, 1986).

Three examples using moderation as a statistical method in the international student literature were found. Wei, Ku, Russell, Mallinckrodt, and Liao (2008) conducted a study where

three coping strategies (reflective, suppressive, and reactive) in addition to levels of self-esteem would serve as moderators of the relationship between perceived discrimination and depressive symptoms. Hypothesis consisted of coping strategies and levels of self-esteem serving as moderators to the relationship between perceived discrimination and depression of Asian international students. Using hierarchical regression analyses, there was a direct significant 3-way interaction of perceived discrimination, reactive coping, and self-esteem in predicting depressive symptoms. Jung, Hecht, and Wadsworth (2007), using 218 international student participants, found social undermining, which is the opposite of social support, moderated intensifying the relationship ($p < .01$) between perceived discrimination and depression for international students. Other moderation tests were conducted within this research study, none obtaining significance.

Ahuna and Mallinckrodt (1989) posit ISOs are valuable in helping international students develop supportive relationships with domestic students, co-nationals and other international students. Relating to this hypothesis, a third instance of moderation research with international students is Chen et al.'s (2003) study where they examined the relationship between adult attachment security, anxiety, and avoidance and: Perceived Social Support (PSS) from family and friends in an East Asian international student's home culture; PSS from new friendships developed in the U.S.; and perceived ISO support. Perceived support from an ISO was hypothesized serving as a moderator in reducing connection between perceived discrimination and psychological distress for Asian students. Participants consisted of international students ($N = 52$) from East Asian countries who were in the U.S. fewer than three years. Each participant completed instruments focusing on adult attachment, perceived social support, stressful life

events, experiences of racism, and psychological symptoms of distress. The study's purpose was to

look at the relationship between three categories of adult attachment (security, anxiety, and avoidance) and: (1) perceived social support (PSS) from family and friends in the East Asian international student's home culture; (2) PSS from new friendships made in the U.S.; and (3) support perceived from the ISO. (Chen et al., 2003, p. 30)

The authors' hypothesis states higher levels of attachment security and lower levels of avoidance and anxiety would relate positively with higher levels of PSS from each source. Findings were mixed. Security in adult attachment was found to be

significantly associated with higher levels of PSS from all three sources. International students having highest levels of adult attachment security also had positive levels of perceived support from new friends made in the U.S., higher PSS from the ISO, and higher PSS from the friends and family in their home countries. (Chen et al., 2003, p. 39)

On the other hand, it was concluded adult attachment anxiety and avoidance were negatively associated with social support (Chen et al., 2003).

Hierarchical multiple regressions test for interaction by dividing the research participants in the Chen et al. (2003) study into three separate groups of high, medium, and low levels of perceptions of ISO support. Among international students with lowest levels of perceived ISO support, there was a significant relationship between racism and distress ($p < .05$). There was no relation between racism and symptoms of psychological distress of those international students with the highest levels of PSS from the ISO. Findings concluded PSS from an ISO moderates reducing strength between those who do experience racism and psychological distress for East Asian international students. Additional research using moderation statistical methods pertaining

to international students is recommended. If this study's research hypothesis of an ISO serving as a moderator of the relationship between undergraduate F1 visa status non-native English speaking international students and student outcomes, results will add to the literature knowledge base. These three articles serve as precedent in moderation when studying international students and this study adds to the research field framework (Chen et al., 2003).

Summary

The literature review informs development of research questions in this study by illustrating difficulties and potential roadblocks international students encounter in and out of the classroom. Using Astin's (1984) Student Involvement Theory, gaps in the literature lead to the development of researcher questions as to whether there is a positive relationship between international student frequency of involvement and the outcome variables of higher overall GPA and higher retention rates. Does an increase in frequency of involvement result in positive international student outcomes as measured by higher overall grade point average (GPA) and retention rates? The second part of the research design examines whether an ISO as a moderator positively relates the relationship between F1 visa status non-native English speaking undergraduate international student frequency of involvement in student support services and extracurricular activities, resulting in positive international student outcomes in overall GPA and retention rates. The research methodology section combines how often the research participants use academic support services and participate in extracurricular activities into an involvement score and whether there is a positive relationship among institutions with an existing ISO between undergraduate F1 visa status non-native English speaking international student frequency of involvement in academic support services and participation in extracurricular activities leading to positive international student outcomes in overall GPA and retention rates.

An International Student Office has the potential to facilitate the numerous transitions and transformations international students must endure to navigate various facets of academic and social adjustments. Examining moderator effects may provide evidence to why every institution of higher education that admits international students should have an ISO providing specific support and social adjustment of international students. This study will look at the role of ISOs by exploring international student frequency of involvement in using academic support services and participation in extracurricular activities. It will also examine if the presence of ISOs has moderating effects on the academic outcomes of international students.

CHAPTER 3

Methodology

Introduction

The purposes of this study are to examine: (a) F1 visa status undergraduate non-native English speaking international student frequency of involvement and whether there is a significant relationship between academic and extracurricular involvement and positive student outcomes; and (b) whether an International Student Office moderates the positive relationship of undergraduate F1 visa status non-native English speaking frequency of involvement and international student outcomes of GPA and retention rates. Chapter 3 presents the methods used to investigate these research questions and explains how the study was conducted—purpose of the study, assumptions, population under study, sample, choice of research method, variables used, data collection, instrumentation, administration of the survey, and interpretation and analysis of the data. Procedures for recruiting participants are discussed as well as instruments used in this study. Also, information pertaining to data collection and data analysis is presented to address research questions.

Using Astin's (1984) Student Involvement Theory as a theoretical model, this study uses a quasi-experimental survey design gathering data from participants fitting the research criterion. Hypothetically, if international students attend a college or university with an office supporting international student academic and personal transitions, then accessing ISO services and support staff could be beneficial to their academic and personal well-being as well as persistence in remaining enrolled in their original college choice. Answering the central research questions of whether there is a positive relationship between participant frequency of involvement related to positive student outcomes and second whether the existence of an ISO moderates participant

frequency of involvement leading to positive academic outcomes of international student GPA and retention rates, this study, guided by the conceptual framework, will address the following hypotheses:

Hypothesis 1—An increase in F1 visa status non-native English speaking undergraduate international student academic involvement positively predicts improved overall grade point average.

Hypothesis 2—An increase in F1 visa status non-native English speaking undergraduate international student academic involvement positively predicts an increase in the likelihood of retention.

Hypothesis 3—An increase in F1 visa status non-native English speaking undergraduate international student extracurricular involvement positively predicts improved overall grade point average.

Hypothesis 4—An increase in F1 visa status non-native English speaking undergraduate international student extracurricular involvement positively predicts an increase in the likelihood of retention.

Hypothesis 5—The positive relationship between F1 visa status non-native English speaking international student academic involvement and overall grade point average will be stronger for those institutions with an ISO than those without an ISO.

Hypothesis 6—The positive relationship between F1 visa status non-native English speaking international student academic involvement and likelihood of retention will be stronger for those institutions with an ISO than those without an ISO.

Hypothesis 7—The positive relationship between F1 visa status non-native English speaking international student extracurricular involvement and overall grade point average will be stronger for those institutions with an ISO than those without an ISO.

Hypothesis 8—The positive relationship between F1 visa status non-native English speaking international student extracurricular involvement and likelihood of retention will be stronger for those institutions with an ISO than those without an ISO.

Hypotheses

Eight hypotheses drive this study. The first four are general hypotheses that attempted to predict a positive relationship between a predictor variable and a criterion variable. Statistical method of regression was used to predict whether an increase in the predictor variable positively relates to the criterion variable. The first hypothesis (see Figure 1), suggests that student academic involvement is positively related to GPA. The second hypothesis (see Figure 2) suggests that student academic involvement is positively related to retention. The third hypothesis (see Figure 3) suggests extracurricular involvement is positively related to GPA; and the fourth hypothesis (see Figure 4) suggests extracurricular involvement is positively related to retention.

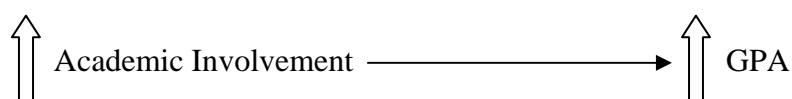


Figure 1. Expected positive correlation for Hypothesis 1.

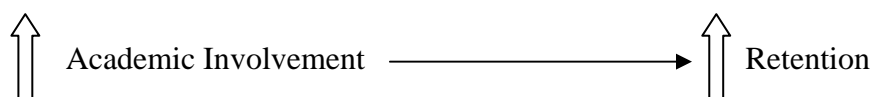


Figure 2. Expected positive correlation for Hypothesis 2.

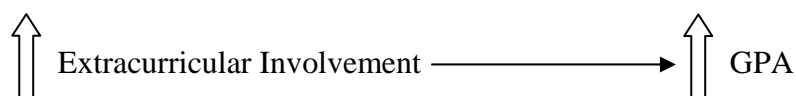


Figure 3. Expected positive correlation for Hypothesis 3.

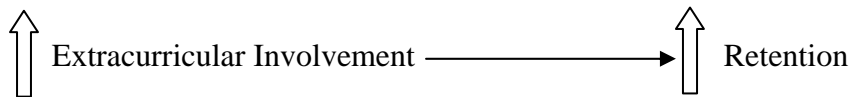


Figure 4. Expected positive correlation for Hypothesis 4.

Hypotheses 5-8 used an ISO as a moderator (Z) in a relationship between the predictor variable of involvement (X) and variables of interest (Y). Moderation employs the use of a third variable. Hypotheses five through eight used the statistical method of moderation where ISO existence is a moderating variable between the predictor and outcome variables and was considered a moderator because the existence of an ISO represents at least part of the changes in international student involvement within the academic and extracurricular predictor variables leading to changes in the outcome variables of grades and retention of the population under study.

The first four hypotheses posit positive relationships between international student frequency of involvement and higher overall GPA, and separately with higher retention rates. Hypotheses five through eight attempt establishing an ISO, as a moderator, underlies this relationship. Hypothesis 5 (see Figure 5) posits a hypothetical sequence among three variables. Academic involvement is the predictor variable (X), GPA the outcome variable (Y), and ISO the moderating variable (Z). Hypothesis 6 (see Figure 6) has academic involvement as the predictor variable (X), retention rate the outcome variable (Y), and ISO the moderating variable (Z). In Hypothesis 7 (see Figure 7), extracurricular involvement is the predictor variable (X), GPA the outcome variable (Y), and ISO the moderating variable (Z). In Hypothesis 8 (see Figure 8), extracurricular involvement is the predictor variable (X), retention rate is the outcome variable (Y), and ISO is the moderating variable (Z).



Figure 5. Expected relationship between academic involvement and GPA moderated by ISO.

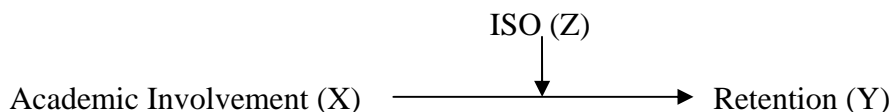


Figure 6. Expected relationship between academic involvement and retention moderated by ISO.

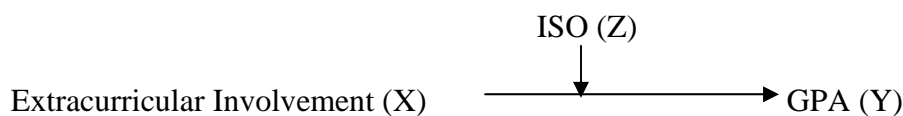


Figure 7. Expected relationship between extracurricular involvement and GPA moderated by ISO.

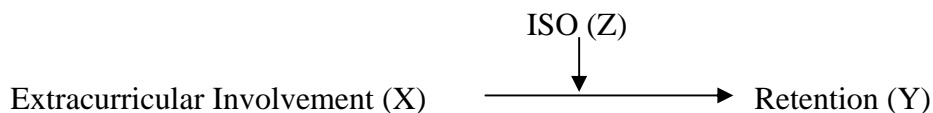


Figure 8. Expected relationship between extracurricular involvement and retention moderated by ISO.

Conceptualizing a Moderator Framework

Moderation refers to the examination of statistical interaction between two independent variables (at least one must be continuous) in predicting a criterion variable. The effect of one variable changes across levels of another variable and the relationship between two variables changes as a function of the moderator variable (Baron & Kenny, 1986).

Moderator variables magnify, satisfy, or reverse the relationship between a predictor and an outcome variable (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004; Hoyle & Robinson, 2004). Statistical analysis must measure and test the differential effect of the independent variable on the dependent variable as a function of the moderator (Baron & Kenny, 1986). If an

interaction is found between the predictor and criterion variables, it can be concluded that the relationship between the predictor and outcome variables are different between participants from the two groups (ISO and non-ISO). The researcher cannot conclude subjects being at an institution with an ISO or subjects attending an institution without an ISO caused the participants to have different responses to the levels of the predictor variable. The moderator hypothesis can be supported if the interaction is significant (Baron & Kenny, 1986). Research using moderators “address ‘when’ or ‘for whom’ a variable most strongly predicts or causes an outcome variable” (Frazier et al., 2004, p. 116). A moderator effect is an interaction where one variables effect depends on the level of another, and benefits of moderator effects is increasing understanding of relationships between important predictors and outcomes (Frazier et al., 2004). For example, Corning (2002) found perceived discrimination was positively related to psychological distress only among participants with low self-esteem because self-esteem “buffered” discriminations effect on distress. In sum, using a moderator effect provides information to a study regarding boundary conditions for the relationship of interest (Aguinis, 2004). This study not only examines the association between frequency of involvement and academic outcomes, it also examines the conditions where an ISO would make this association stronger or weaker. Identifying whether an ISO has a moderator effect allows for accentuation of the relationship between ISOs and positive academic outcomes.

Assumptions

Institutions with effective international student offices (ISO) have positive effects of increasing undergraduate F1 visa status non-native English speaking international student grade point averages and retention rates. ISOs promote international student access to and awareness of resources that contribute positively to student outcomes.

Population

Population under study consists of undergraduate non-native English speaking international students in the United States on F1 visas studying in four-year institutions of higher education.

Sample Criteria

The sampling criteria used for the study limited the population to students of F1 visa status undergraduate non-native English speaking, and attending four-year postsecondary institutions in North Carolina during the 2010/2011 academic year. The target sample size was 200 respondents.

Sampling Strategy

IRB approval, or in the cases where an institution did not have an IRB process institutional approval, was granted from each institution prior to campus visits by the researcher. Convenience sampling was used to identify and recruit participants. Data collection took place over five months, from November 2010 to April 2011. There were three approaches used to obtain this study's sample. First, the researcher visited colleges/universities in North Carolina without an ISO including High Point University, Belmont Abbey College, St. Andrews Presbyterian College, Greensboro College, and Lees McRae College. High Point University was the only institution without an ISO where IRB approval was a prerequisite to conduct research on site. Other institutions without an ISO required permission from an upper-level administrator. Professional representatives were contacted via e-mail at each institution familiar with international student issues to arrange a time and place for the researcher to visit campus. Institutional representatives whose primary job responsibilities included working with international students referred potential research participants to the researcher. These

representatives sent e-mails to participants fitting the research criterion inviting them to take part in the survey. Also, representatives reserved a room on-campus for the researcher to conduct the survey. Interested participants would meet the researcher at a pre-appointed time. After describing the study, the researcher invited each participant to participate in the study. Informed consent was obtained from each participant prior to data collection. Once signed and returned, a survey was given to the participants to complete. Participants completed the questionnaire in the pen and paper format and could ask questions during survey administration. Second, the researcher attended the 2010 North Carolina Association of International Educators (NCAIE) International Student Leadership Conference soliciting participation of international students fitting the research criterion. The researcher asked conference participants fitting the research criterion to volunteer for study participation and made announcements during the conference requesting student participation. The third approach used to collect data was to visit institutions with ISOs to increase sample size. Visits to institutions with ISOs included: Western Carolina University, North Carolina A&T State University, Appalachian State University, University of North Carolina at Greensboro, and University of North Carolina at Wilmington. Finally, in April 2011, the researcher went to The University of North Carolina at Greensboro's IFEST, a campus and community celebration of international culture in a festival environment. Potential participants were informed of the description of the study including purpose of the study, scope of participation, use of the data, and read and signed an informed consent. The researcher was available in-person to clarify participant questions.

Variables

Variables used in this study included: student demographic variables, institutional demographic variables (including the availability of specific student services), frequency of

student use of student services and participation in extracurricular activities, retention, and student academic outcomes.

Demographic variables. Demographic variables included participant gender, age, nation of origin, year in school, current grade point average, and institution student is currently enrolled.

Institutional variables. Institutional variables included whether an institution had an (ISO), frequency of international students ISO visits, and whether an orientation program was available for international students.

Academic support variables. Academic support variables focused on specific student services including tutoring, study groups, and academic advising. Academic support variables were combined into one number to determine participant frequency of involvement. Measuring frequency of participant use of these services was necessary to analyze whether an ISO increases F1 visa status non-native English speaking international student involvement in academic support services leading to positive student outcomes. Institutionally sponsored extracurricular activity variables used in the instrument were participation in intramural sports, clubs and organizations, and off-campus activities. These were activities commonly seen at colleges and universities and good frequency of involvement measures of international students. While not academic in nature, extracurricular activities engage this population and allow for interaction with domestic student students. Extracurricular variables were combined into one number to determine participant frequency of involvement.

Student use of services. The “Student use of services” variables included international students ISO usage. From the academic involvement perspective, student use of services included tutoring, meeting with an academic advisor, and participating in a study group.

Involvement in intramural sports, clubs/organizations, and off-campus excursions were extracurricular activities student use of services.

Student academic outcomes. Student outcome variables included international student grade point average (GPA) and retention.

Data Collection

Collection of student demographic variables was important for this study because it provided individual characteristics of the sample. These characteristics allowed the researcher to discern specific variables that could explain differences in relation to other variables in the study. These variables were necessary for analyzing each hypothesis.

Instrument

A questionnaire was developed gathering data on respondent demographics, institutional services, respondent use of institutional services, and respondent academic outcomes. The questionnaire consisted of 46 items and took participants approximately 20 minutes to complete. The researcher developed an instrument that incorporates 15 questions from the Attachment subscale within the Student Adjustment to College Questionnaire (Baker & Siryk, 1984). All data was collected from a survey instrument administered at the NCAIE International Student Leadership Conference held in November 2010, and in April 2011, at The University of North Carolina at Greensboro's IFEST. In addition, during the 2010 fall semester, administrations took place at Greensboro College, High Point University, St. Andrews Presbyterian College, Lees-McRae College, and Belmont Abbey College. These institutions are currently without an international student office. During spring semester 2011, data was collected at institutions having an ISO including Appalachian State University, North Carolina A&T State University, Western Carolina University, The University of North Carolina at Greensboro, and The

University of North Carolina at Wilmington. Data consisted of scores received from students completing the survey.

Data collection focused on four topics:

1. Student demographics,
2. Institutional demographics,
3. Student involvement using academic support services and extracurricular activities.
4. Student outcomes (i.e., overall grade point average and retention).

The data analysis examined frequency of the two predictor variables (academic and extracurricular activities) relating to the two outcome variables (GPA and retention).

An exploratory analysis of demographic variables and their relationship with involvement and student outcomes was conducted. Demographic data was collected on two dimensions; respondent characteristics such as country of origin, years in school, age, gender, and persistence in school, and demographic information about institutions such as location, public or private, international student office or not, size of the student population, and student attendance at orientation programs focused on international students.

Institutional services examined within the academic activities variable included peer tutoring, meeting with an academic advisor, and participating in a study group. Also, non-academic extracurricular activities (intramural sports, joining clubs and organizations, and attending off-campus institutionally sponsored events) were categories to be examined.

Student Adjustment to College Questionnaire. Baker and Siryk's Student Adjustment to College Questionnaire (SACQ) is a 67-item, self-report questionnaire. SACQ is based on "the assumption that adjustment to college is multifaceted-that it involves demands varying in kind

and degree and requires a variety of coping responses (or adjustments) which vary in effectiveness” (Baker & Siryk, 1999, p. 1).

One subscale, Attachment, composed of 15 questions relating to retention, was used within the researcher’s instrument. The purpose of the attachment questions was to survey student notions of being in college and takes a closer view between student and institution relationship. Interpretation of the attachment subscale measures the degree of commitment to educational-institutional goals and the degree of attachment to the attending institution.

The reliability of the 67-item questionnaire ranges from .92 to .95, and the Attachment subscale range is from .85 to .91. Data were gathered over several years from three institutions with first- and second-semester freshmen to assess reliability of the SACQ.

Administration of the survey. Participants in November 2010 attended the North Carolina International Student Leadership Conference, over a two-day period at High Point University in High Point, North Carolina. Also, on April 16, 2011, data was collected at The University of North Carolina at Greensboro’s IFEST, a campus and community celebration of international culture in a festival environment. Survey results of participants remained confidential. Administration of the questionnaire included two parts. First, the researcher proctored the survey in-person to ensure a high response rate. A room for participants to take the survey was available so participants had some measure of privacy and opportunity to ask questions of the researcher. A researcher concern was the response rate and participant interpretation of questions in the survey instrument would be lower using an indirect method such as Survey Monkey due to confusing language among participants and the potential of limited English proficiency. Face-to-face researcher participant interaction could increase

respondent numbers and allowed participants opportunities to ask questions about survey questions.

The second method involved site visits to Greensboro College, High Point University, Lees McRae College, and Belmont Abbey College, institutions currently without International Student Offices, and Western Carolina, Appalachian State University, University of North Carolina at Greensboro, and University of North Carolina at Wilmington, institutions with ISOs. Researcher conducted the instrument face-to-face at these institutions due to the aforementioned concerns and worked with campus representatives at these institutions to find an optimal time and place to conduct the survey. Also, IRB approval or institutional approval was confirmed before conducting site visits. This method was completed during the 2010 fall semester and February and April 2011.

Data Handling

Data from the questionnaire was entered into an Excel spreadsheet. The spreadsheet provided the data set imported into Statistical Package for Social Sciences (SPSS) software package for analysis. SPSS can be used to calculate odds ratios.

Data Analysis

The institutional demographic variables measured whether ISO moderates the relationship of an institution to undergraduate F1 visa status non-native English speaking international student frequency of involvement leading to positive international student academic outcomes of overall GPA and retention.

Hypotheses 1-4 used regression to predict a relationship between the predictor variable and outcome variable. Regression is a statistical technique used to find the best-fitting straight line for a dataset resulting in a least squared regression line. Hypotheses 5-8 used the statistical

method of moderation to examine whether ISO moderates the relationship between a predictor variable (involvement) and outcome variables (grade point average and retention). Within the framework of this research study, moderation implies the relationship between two variables will change as a function of the moderator variable. Baron and Kenny (1986) state the statistical analysis of moderation must measure and test the differential effect of the predictor variable on the criterion variable as a function of the moderator. Testing and measuring the differential effects partially depends on the level of measurement of the predictor variable and the moderator variable. Moderator function of third variables, “partitions a focal independent variable into subgroups that establish its domains of maximal effectiveness in regard to a given dependent variable” (Baron & Kenny, 1986, p. 1173). Baron and Kenny use four moderation models, one of which (Case 2) models the moderation methods used in this study, detailing appropriate analysis procedures to measure and test moderation hypotheses. The example shown in their Case 2 has the moderator as a categorical variable. ISO, specifically whether participant answers “Yes” or “No” to attending an institution with an ISO, is this study’s categorical variable. Each of the predictor variables in this study is a continuous variable being participant frequency of involvement in academic involvement and extracurricular activities. Measuring moderation in this study is correlating frequency of involvement and outcome variables separately for participants in ISOs and not in ISOs and testing the difference.

When using moderation, there are three steps necessary for the researcher to analyze data. The first step is to represent the moderator with code variables. ISO variable is binary, e.g. a “Yes” or “No” answer to the question of whether participants attend an institution with an ISO. Choosing a coding system is based upon specific questions being examined and has important

implications for testing and interpreting effects in equations involving interactions. Contrast coding is used when comparing specific groups and is optimal in this study.

Centering continuous predictor or moderating variables is the second step in formulating the regression equation. Involvement is the continuous predictor variable in this study. A recommendation from statisticians is to center these variables and researchers do this by putting continuous predictor and moderator variables into deviation units. Variable(s) are placed in deviation units by subtracting their sample means producing revised sample means of zero. Predictor and moderator variables typically are highly correlated with the interactions terms spawned from them and centering reduces multicollinearity issues among variables in the regression equation. Once continuous scale variables are centered, the third step in moderation, data analysis, is creating product terms representing interactions between predictor and moderator. This is accomplished by multiplying the predictor and moderator variables using newly coded categorical variables or centered continuous variables. Creation of a product term for each coded variable is required and since this study has one coded variable for its categorical variable, then there is one interaction term. After the product terms are created, everything is in place to structure a hierarchical multiple regression equation using standard statistical software to test for moderator effects (Frazier et al., 2004).

Once the formation of a structured hierarchical regression equation is in place, the researcher will use SPSS to test for moderator effects. First, the researcher will enter variables into the regression equation through specific blocks or steps. This usually includes code variables and centered variables to represent the predictor and moderator variables. The researcher must include in the model any individual variables in the interaction term(s) (West et al., 1996) and product terms are entered into the regression equation after the predictor and moderator variables

from which they are created (Aiken & West, 1991; Cohen et al., 2003; Dunlap & Kemery, 1987; Holmbeck, 1997; Jaccard et al., 1990; McClelland & Judd, 1993; West, Aiken, & Krull, 1996). Using SPSS for moderation, any control variables, the predictor, and moderator variables must be centered by finding the mean and subtracting from value. The second step is to calculate the interaction term, by multiplying the predictor and moderator variables ($X * Z$). The third step is to analyze the data using linear regression models to see whether the coefficient of determination changes when one adds the interaction term. The research should put in the Y (Criterion) then control variables in the first step, X (Predictor) in the next step, Z (Moderator) in the next step and $X*Z$ in the final step. If the interaction term adds new variance and is statistically significant than what existed before, then moderation is significant. The final step is to plot the interaction.

When the researcher examines the effect of moderation, they are interpreting the effects of the predictor and moderator variables and testing the significance of the moderator effect, and plotting significant moderator effects.

Limitations

This study was limited in its ability to obtain a complete picture of every factor relating GPA and retention. First, by conducting the survey at the NCAIE International Leadership Student Conference, the sampling of students attending could skew the sample toward “higher performing” students regarding possibility institutions would invite their best and brightest students to represent at conference. Second, with current economic conditions restricting travel and conference attendance some institutions were unable to send students. A third concern was a majority of attendees were from institutions with stronger programs and more available resources to send students to such conferences. Institutions with strong programs and more available resources to support international students could be more likely to have ISOs at their institutions.

A fourth limitation was participant honesty responding to the question about their overall GPA.

Finally, from a statistical perspective, the researcher cannot infer causality from correlation since correlation research cannot control or eliminate extraneous variables (Leary, 2004).

CHAPTER 4

Analysis and Results

This study was grounded in the literature and research on student retention, social adjustment, and Astin's model of college student involvement. The overall goal of this study is to examine the relationship between ISOs and international student outcomes. Findings of this study did not show a relationship between participant academic and extracurricular involvement and positive student outcomes. Therefore, the researcher was unable to examine the relationship between ISOs and participant outcomes. Even though no relationship was found, this research importance to scholars lies in the fact there are numerous international student issues.

Recognition of these issues provides clarity in why ISOs are necessary on college and university campuses admitting international students. ISOs create avenues for international student support to become actively involved in international student transition, acculturation, adjustment, and academic success (Byrd, 1991). Additional examination of the research design could find other variables (i.e. nation of origin, gender, etc.) that positively influence the relationship between ISOs and international student outcomes.

A questionnaire was developed by the researcher for the purpose of gathering data on respondent demographics (see Table 1 for demographic descriptive statistics), institutional services, respondent use of institutional services, and respondent academic outcomes consisting of 46 items including, 15 questions from the Attachment subscale within the Student Adjustment to College Questionnaire (Baker & Siryk, 1984). Table 2 lists the correlation of all study variables.

Table 1

Demographic Descriptive Statistics (N=82)

Demographic Variable	<i>n</i>	%	<i>M</i>	<i>SD</i>
Gender				
Male	46	56.1		
Female	36	43.9		
Average age			21.54	2.74
ISO at School				
Yes	46	56.1		
No	36	43.9		
Major				
Business	42	51.2		
Math/Science	21	25.6		
Social Science	7	8.5		
Art/Music	4	4.9		
Other	8	9.8		
Subgroup Sample Size				
Asia	28	34.1		
Europe	25	30.5		
Africa	13	15.9		
Latin America	12	14.6		
Middle East	3	3.7		
Other	1	1.2		

Descriptive Statistics

This study had a sample size of 82 participants ($N=82$). Participants were from 18 to 35 years of age with the average age of 21.53 years old ($SD=2.74$), and included both men ($n=46$) and women ($n=36$). The gender skew was 12.2% with male participants being the majority of participants. The participants represented a number of different nationalities that were categorized by native continent (Asia, $n=28$; Europe, $n=25$; Africa, $n=13$; Latin America/Brazil,

Table 2

Pearson's Correlation of Study Variables

	Club Membership	Advisor grades semester	Advisor plan semester	Tutor hours per week	Hours per week intramural	Hours per week study group	Current grade point average	Return to same school	Participate off campus events
Club membership	1.00	-.020	-.096	-.160	.100	-.134	.161	-.150	-.201
Advisor grades semester		1.00	.445**	.152	.040	.222*	-.057	-.101	.148
Advisor plan semester			1.00	.197	-.158	.235*	.038	-.143	.380**
Tutor hours per week				1.00	-.109	-.059	-.097	-.016	.094
Hours per week intramural					1.00	.079	.126	-.063	.000
Hours per week study group						1.00	.076	-.016	.181
Current grade point average							1.00	-.275*	.088
Return to same school								1.00	-.067
Participate off campus events									1.00

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

$n=12$; Middle East, $n=3$; Other, $n=1$). Participants reported studying in the following majors: business ($n=42$), art/music ($n=4$), math/science ($n=21$), social science ($n=7$), and other ($n=8$). A majority of participants (51.2%) were business majors. The time students spent living in the U.S. ranged from three months to over eight years averaging 32.18 months. A majority of participants ($n=46$) responded “yes” when asked whether there was an ISO on their campus, and ($n=36$) participants responded “no” to the ISO question.

Sampling Bias

Using a convenience sample strategy instead of a random sampling strategy increased the challenge of encountering sampling bias. This sampling bias can have an effect on the participants in the sample and the data generated. As seen in the descriptive statistics, the sample is skewed due to difference in participant gender, whether their institution has an ISO, origin, and major field of study. A linear regression model was used to analyze H1 & H3 since the dependent variable for both hypotheses, GPA, is continuous. This statistical model is frequently used when the researcher wants to assess “the joint relationships of multiple predictors with a continuous outcome variable” (Vittinghoff, Shiboski, Glidden, & McCulloch, 2005, p. 70). Working with a linear regression model allows the researcher to realistically represent how the “average value of the outcome varies systematically with the predictors” (Vittinghoff, Shiboski, Glidden, & McCulloch, 2005, p. 73). Using questions from the instrument, question eight asked participants to self-report their current overall GPA.

Hypothesis 1

Hypothesis 1 stated an increase in F1 visa status non-native English speaking undergraduate international student academic involvement positively predicts improved overall grade point average. An aggregate of the academic involvement variables (see Table 3)

Table 3

Aggregate Academic Involvement and GPA

Model	Standardized Coefficients Beta	<i>t</i>	Sig.
1 (Constant)		14.020	.000
Tutor hrs. per week	-.095	-.817	.416
Advisor Plan semester	.082	.637	.526
Advisor Grades semester	-.096	-.751	.455
Hours per week study group	.072	.612	.542

originating from instrument questions 17-20 (Question 17: In Fall Semester 2010, how many hours did you work per week with a tutor?; Question 18: In Fall Semester 2010, about how many hours did you meet with your academic advisor to plan your course schedule?; Question 19: In Fall Semester 2010, about how many hours did you meet with your academic advisor to discuss your grades or academic work?; Question 20: In Fall Semester 2010, how many hours did you meet per week with a study group?) was regressed on GPA and found no relationships ($p > .05$). Then the researcher disaggregated (see Table 4) the academic involvement variables and ran each variable against GPA and found no relationships ($p > .05$). Questions 17-20 were used because they pertained to the academic involvement variables used in this study. Table 3 lists the aggregate intercorrelations between academic involvement and grade point average. Table 4 lists the disaggregate intercorrelations of academic involvement and grade point average.

Hypothesis 2

Hypothesis 2 stated an increase in F1 visa status non-native English speaking undergraduate international student academic involvement positively predicts an increase in the

Table 4

Disaggregate Academic Involvement and GPA

Model	Standardized Coefficients Beta	T	Sig.
1 (Constant)		21.240	.000
Tutor hours per week	-.097	-.876	.384
Advisor Plan semester	.038	.339	.736
Advisor Grades semester	-.057	-.515	.608
Hours per week study group	.076	.679	.499

likelihood of retention. In the case of H2 & H4 a logistic regression model was used because the outcome variable (retention) is binary (i.e. participants will or will not return to the same school next year). This model assists researchers in investigating the “association between a binary outcome and categorical predictor to include continuous predictors and allow simultaneous consideration of continuous and categorical predictors” (Vittinghoff, Shiboski, Glidden, & McCulloch, 2005, p. 206).

Retention was measured based upon participant response ($n = 75$) to question 40 in the instrument asking them to respond “yes, no, or I don’t know” to the item that indicates whether they plan on returning to the same school next year. Seven participants who responded, “I don’t know” were removed from the analysis of H2. The results of the regression analysis of the “academic involvement” variables with retention were not significant at the .05 level (see Table 5).

Hypothesis 3

Hypothesis 3 stated an increase in F1 visa status non-native English speaking undergraduate international student extracurricular involvement positively predicts improved

Table 5

Academic Involvement and Retention

Step 1a	B	S.E.	Wald	df	Sig.	Exp(B)
Q17tutor	.305	.188	2.648	1	.104	1.357
Q18advisor	-.759	.650	1.361	1	.243	.468
Q19advisor	-1.101	.978	1.267	1	.260	.333
Q20study g	.002	.210	.000	1	.992	1.002
Constant	-1.621	.597	7.384	1	.007	.198

overall grade point average. A linear regression model was used to analyze this hypothesis because the outcome variable is GPA, a continuous variable. An aggregate of the extracurricular involvement variables (see Table 6) originating from instrument questions 21, 22, & 24 (Question 21: In Fall Semester 2010, how many hours did you participate per week in intramural sports?; Question 22 Are you a member of a school sponsored club or organization?; Question 24: In Fall Semester 2010, how many hours per week did you participate in university sponsored non-academic off-campus events, activities, field trips, etc.?) was regressed on GPA and found no relationships ($p > .05$).

Then the researcher disaggregated the extracurricular variables (see Table 7) and ran participation in intramural sports and off campus events against GPA and found no relationships ($p > .05$). Question 23 asked participants who were involved in clubs and organizations to write in which clubs and organizations they participated in as well as hours per week of involvement. No relationship was found when looking at participation in clubs and organizations versus GPA

because of missing values. Eleven of the 40 participants responding yes to involvement with clubs and organization did not answer how many hours they were involved.

Table 6

Aggregate Extracurricular Involvement and GPA

Model	Standardized Coefficients Beta	T	Sig.
1 (Constant)		6.243	.000
Intramural per week	.109	.981	.330
C & O Membership	.175	1.544	.127
Off-campus events	.123	1.093	.278

Table 7

Disaggregate Academic Involvement and GPA

Model	Standardized Coefficients Beta	T	Sig.
1 (Constant)		19.562	.000
intramural	.126	1.135	.260
off-campus events	.088	.790	.432

Hypothesis 4

Hypothesis 4 stated an increase in F1 visa status non-native English speaking undergraduate international student extracurricular involvement positively predicts an increase in the likelihood of retention. A logistic regression model was used because the outcome variable (retention) was binary in the fact that participants will or will not return to the same school next year. Retention was measured based upon participant ($n = 75$) response to question 40 in the instrument asking them to respond “yes, no, or I don’t know” to the item that indicates whether

they plan on returning to the same school next year. Seven participants who responded, “I don’t know” were removed from the analysis of H4. The results of the regression analysis of the “extracurricular variables” with retention were not significant at the .05 level (see Table 8).

Table 8

Extracurricular Involvement and Retention

Step 1a	B	S.E.	Wald	df	Sig.	Exp(B)
Q21intramural	.054	.245	.050	1	.824	1.056
Q22Club			1.898	2	.387	
Q22Club(1)	21.333	7551.921	.000	1	.998	1.841E9
Q22Club(2)	19.222	7551.921	.000	1	.998	2.229E8
Q24offcampus	-.013	.112	.015	1	.904	.987
Constant	-21.333	7551.921	.000	1	.998	.000

Hypotheses 5-8

Since no relationships were found ($p > .05$) in hypotheses one through four it was not necessary to run tests of moderation.

CHAPTER 5

Discussion

The overall goal of this study is to examine the relationship between ISOs and international student outcomes. This topic is important because international students must be recognized by higher education stakeholders including administration, faculty, staff, and domestic students as vital to sustain institutions of higher education status as bastions of higher learning in the 21st century. Support, through ISOs, can provide reassurance to international students and their families that they are making the correct choice when they matriculate into college. The researcher suggested institutions should minimally have an on-campus International Student Office staffed by professionals with expertise in international education affairs. Offices providing international student support services create avenues for international students to become actively involved in international student transition, acculturation, adjustment, and academic success (Byrd, 1991). The dissertation consists of five chapters an introduction (Chapter 1), literature review (Chapter 2), methodology (Chapter 3), analysis and results (Chapter 4), and discussion (Chapter 5). The literature review focused on challenges in the international student experience. The design examined whether participant frequency of involvement related to positive academic outcomes and whether the presence of a multipurpose office including a division of international student support services related to frequency of undergraduate F1 visa status international non-native English speaking student involvement in selected academic support programs and extracurricular activities leading to positive international student academic outcomes in overall GPA and retention rates. The research study was completed to measure whether International Student Offices (ISOs) impacted undergraduate

F1 visa status non-native English speaking international college student involvement leading to increases in participant overall GPA and retention rates.

Limitations

There are several limitations in the present study that should be recognized. First, this study focused on undergraduate F1 visa status non-native English speaking international students that limited the potential participants and led to a low sample size ($n = 82$). Generalizing the results to other international student populations or institutions with ISOs should be avoided. Low power due to sample size did not find significant results so the null hypothesis could not be rejected. Another statistical limitation included the variance in grade point average and academic involvement was small. Even though the researcher visited ten institutions of higher learning in North Carolina with and without ISOs, some of them on multiple occasions, attended a statewide student leadership conference, and an International Student Festival, the number of participants did not allow for the researcher to make conclusions based upon results. Ninety-three surveys were completed and eleven participant surveys were dismissed because omitted participants failed to meet one component of the research criterion. This resulted in an eighty-eight percent response rate. The sample could also be biased because it represents only students who were willing to participate. From a demographic standpoint, more males (56.1%) than females (43.9%) took the survey and 56.1% of the participants attended an institution with an ISO. Also, more than half of the participants (50.6%) were business majors. These demographic characteristics of the sample could have skewed the study results.

Recommendations

Future studies should include all campus undergraduate international students to provide important research data and increase the sample size. Before conducting the study, it is critical

for the researcher to obtain permission from institutional officials, have institutional IRB approval, and be granted access to all international students. Also, support from ISOs at larger research universities is important to increasing the sample size. The researcher was unsuccessful in obtaining access into three of the larger research state universities, each of which has large international student populations. Multiple attempts were made to contact leaders at these institutions with no response to the researcher's queries. One final recommendation would be when using an instrument to collect data, visiting schools and collecting data in-person is highly recommended. There were instances where participants asked for clarification on survey questions providing the researcher insight into participant thought process. While conducting the study face-to-face most likely negatively impacted sample size, it did provide more accurate responses to the questions in the instrument.

Future Research

Despite these limitations and the issue of no relationships with any of the hypotheses, the present study contributes to a better understanding of the factors that can enhance international student involvement. A future longitudinal study would allow researchers to accumulate participants allaying low sample size concerns. Limiting participant criterion had a negative impact on sample size. The researcher had to turn away potential participants or reject surveys due to factors including participants seeking master's degrees, native English-speaking international students, recently graduated international students, J1 exchange students, international students not enrolled in the previous semester, and community college students.

Future research should also focus on international student country of origin. The literature review (Rubenstein, 2006; Jackson, 2004; McGroaty 1993) provides examples of cultural chasms between Eastern and Western cultures. Researchers should examine how country

of origin influences international student adjustment. Offering prescriptions specifically geared toward improving the international student sojourn experience in these major transitional areas including: cultural adjustment, culture shock, acculturation issues, language barrier, cultural distance, social integration, and institutional fit could allow a positive nurturing experience for international students and provide a road map for understanding U.S. culture as well as campus culture. Through empirical research, discovery of solutions to transitional issues can provide an atmosphere of equal footing for international students so they can focus more on their academic endeavors and getting involved in extracurricular activities as opposed to being consumed by issues that detract from their study abroad experience.

Implications for International Students and ISOs

The findings did not support the overall model that hypothesized that the frequency of undergraduate F1 visa status non-native English speaking international student involvement would correlate with an increase in overall GPA and retention rates. Findings also did not support Astin's Involvement Theory by showing a connection between student involvement and GPA and retention rates. Additionally, because no relationships were found among the first four hypotheses, it negated testing ISOs as a moderator between involvement and positive student outcomes. Although no relationships were found in this study, the literature review finds examples of involvement having a positive impact on international students (Rendon, 1994; Ramsay, Barker, & Jones 1999; Westwood & Barker, 1990; Maldonado, Rhodes, & Buenavista, 2005). Prescriptions for college administrators are to continue providing financial and personnel resources via ISOs for international students to meet enrollment and diversity goals. The institution interested in prioritizing the international student academic and extracurricular experience will have an advantage in recruiting international students and keeping them enrolled

at their institution. Providing a global campus environment should be an institutional priority because prospective students are looking for a college experience that prepares them for real world application. Informed international students' families could make a college decision based upon whether there is an ISO.

Oropeza et al. (1991), finding of culture shock being lowered when international students took classes covering topics mentioned as key issues affecting international student involvement is a starting point in the discussion of administration taking a more proactive stance to improving the overall international student experience. Cultural education should begin before a student travels to another country. As mentioned previously, Lin and Yi (1997) believe adjustment to a new environment improves through proactive programming focusing on cultural issues and transitions. The first stage in their model of Asian student adjustment in the U.S. is the Pre-Arrival Adjustment Stage. This concept is useful in that institutions can look to be more proactive in their approach to support international students. Preparation of international students can include providing prerequisite information prior to travelling to a foreign country such as obtaining a bank account or a cell phone, applying for a social security card, an academic calendar, transportation to the college or university upon destination arrival, climate, course registration procedures, and housing . Frontloading pre-departure information is an avenue more colleges and universities will have to explore and master to remain competitive when recruiting and retaining international students. Improvements in technology such as virtual campus tours, Skype, Facebook, and iPads allow for international student familiarity and integration before ever stepping foot on campus. Research can help provide best practices in improving issues pertaining to international student adjustment and how ISOs can best serve their customers through various proactive means.

Given the lack of significant findings of this study, there is a need to continue to explore the relationship between the level of involvement, the presence of ISOs on college campuses, and student outcomes. It is unknown whether the lack of statistical significance of these findings is due to the small sample size or the design of the study. Given this, this researcher intends to follow up this study with more research that could yield evidence that either supports or refutes the hypotheses that guided this study. Institutions must not stagnate; the literature suggests that developing programs to promote international student involvement can help improve academic and social integration, and overall college experience. Institutions of higher education must become proactive agents in their recruitment of international students because of increased domestic and international competition for students (Knight, 2006; Naidoo, 2007; Fischer, 2009; Birchard, 2009; Lin & Yi, 1997). Though this study did not find support for the need of ISOs, this researcher believes that further study on the types and forms of support for international students, including the need for ISOs is needed to better understand how institutions can promote the academic success and retention of international students. Faculty and staff with multiple job responsibilities in institutions without international student offices are left with the added responsibility of supporting international students. Without a dedicated ISO, there is no guarantee faculty and staff will provide the appropriate amount and type of support that meet the complex needs of international students. Administrators need to be spending more time preparing for new students and working to increase involvement with current internationals. American higher education cannot rest on its laurels any longer. Future research on this topic needs to examine the academic, social, and financial contributions of international students in higher education. Beyond the financial and academic benefits of the academic outcomes and

retention of international students, there is a sense that the presence of international students impacts global goodwill and a society of diverse learners.

References

- Abe, J., Talbot, D., & Geelhoed, R. (1998). Effects of a peer program on international student adjustment. *Journal of College Student Development, 39*, 539–547.
- Aguinis, H. (2004). *Regression analysis for categorical moderators*. New York: The Guilford Press.
- Ahuna, L. M., & Mallinckrodt, B. (1989). Programming for Asian American cultural awareness. In C. Woolbright (Ed.), *Valuing diversity on campus: A multicultural approach; Vol. 11. College unions at work monograph series* (pp. 35–40). Bloomington, IN: Association of College Unions—International.
- Aiken, L.S., & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Akka, R.I. (1967). The Middle Eastern student on the American college campus. *American College Health Association, 15*, 251–253.
- Alexander, A., Workney, F., Klein, W., & Miller, M. (1976). Psychopathology and the foreign student. In P. Pedersen, W. Lonner, & J. Draguns (Eds.), *Counseling across cultures* (pp. 82–98). Honolulu: University of Hawaii Press.
- Allen, V. L. (1976). *Children as teachers: Theory and research on tutoring*. New York: Academic Press.
- Allen, W. (1981). *Study of black undergraduate students attending predominantly white, state-supported universities: Preliminary report*. Ann Arbor: University of Michigan Center for AfroAmerican and African Studies. (ERIC Document Reproduction Service No. ED241620)

- Al-Sharideh, K., & Goe, W. (1998). An examination of factors influencing the personal adjustment of international students. *Research in Higher Education, 39*, 699–725.
- American Counsel on Education. (1998). *Minorities in higher education 1997-98: Sixteenth annual status report*. Washington, DC: Author.
- Anderson, L. E. (1994). A new look at an old construct: cross-cultural adaptation. *International Journal of Intercultural Relations, 18*, 293–328.
- Arthur, N. (1997). Counseling issues with international students. *Canadian Journal of Counseling, 31*, 259–274.
- Astin, A. (1975). *Preventing students from dropping out*. San Francisco: Jossey-Bass.
- Astin, A. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel, 297–308*.
- Astin, A. (1993). *What matters in college?* San Francisco: Jossey-Bass.
- Astin, H., & Kent, L. (1983). Gender roles in transition: Research and policy implications for higher education. *Journal of Higher Education, 54*, 310–324.
- Babiker, I. E., Cox, J. L., & Miller, P. M. C. (1980). The measurement of cultural distance and its relationship to medical consultations, symptomatology and examination performance of overseas students at Edinburgh University. *Social Psychiatry, 15*, 109–116.
- Baker, R. W., & Siryk, B. (1984). Measuring adjustment to college. *Journal of Counseling Psychology, 31*, 179–189.
- Baker, R. W., & Siryk, B. (1999). *Student Adaptation to College Questionnaire (SACQ)*. Los Angeles: Western Psychological Services.

- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1182.
- Barrett, M., & Huba, M. (1994). Factors related to international undergraduate student Adjustment in an American community. *College Student Journal, 28*, 422–436.
- Beal, P. E. (1980). Learning centers and retention. In O. Lenning & R. Nayman (Eds.), *New roles for learning assistance* (pp. 59-70). San Francisco: Jossey-Bass.
- Bean, J.P. (1982). Conceptual models of student attrition: How theory can help the institutional researcher. In E. Pascarella (Ed.), *New Directions for Institutional Research: Studying Student Attrition* (pp. 17-33). San Francisco: Jossey-Bass.
- Bean, J. P. (1985). Interaction effects based on class level in an explanatory model of college student dropout syndrome. *American Educational Research Journal, 22*, 35–64.
- Bean, J. P. (1990). Why students leave: Insights from research. In D. Hossler, J.P. Bean and associates (Eds.), *The strategic management of college enrollments*, (pp. 147-69. San Francisco: Jossey-Bass.
- Bean, J. P., & Eaton, S. B. (2002). The psychology underlying successful retention practices. *Journal of College Student Retention, 3*, 73–89.
- Belenky, M., Clinchy, B., Goldberger, N., & Tarule, J. (1986). *Women's ways of knowing*. New York: Basic Books.
- Bennett, J. M., & Bennett, M. J. (1994). Multiculturalism and international education: domestic and international differences. In G. Althen (Ed.), *Learning across cultures* (pp. 145–172). Washington, DC: NAFSA, Association of International Educators.

- Berger, J. B., & Braxton, J. M. (1998). Revising Tinto's interactionist theory of student departure through theory elaboration: Examining the role of organizational attributes in the persistence process. *Research in Higher Education, 39*, 103–119.
- Berger, J. M. (1997). Students' sense of community in residence halls, social integration, and first-year persistence. *Journal of College Student Development, 38*, 441–452.
- Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology, 46*, 5–34.
- Birchard, K. (2009). Canadian universities see big jump in foreign-student enrollments. *The Chronicle of Higher Education, 56*. Retrieved from <http://chronicle.com/article/Canadian-Universities-See-Big/48759/>
- Bloom, S. (1976). *Peer and cross-age tutoring in the schools: An individualized supplement to group instruction*. Ann Arbor: University of Michigan Library.
- Bochner, S., McLeod, B. M., & Lin, A. (1977). Friendship patterns of overseas students: a functional model. *International Journal of Psychology, 12*, 277–294.
- Bonacich, P. (1987). Power and centrality: A family of measures. *The American Journal of Sociology, 92*, 1170–1182.
- Boyer, S., & Sedlacek, W. (1988). Noncognitive predictors of academic success for international students: A longitudinal study. *Journal of College Student Development, 29*, 218–223.
- Braxton, J. M., Bray, N. J., & Berger, J. B. (2000). Faculty teaching skills and their influences on the college departure process. *Journal of College Student Development, 41*, 215–227.
- Braxton, J. M., & Brier, E. M. (1989). Melding organizational and interactional theories of student attrition: A path analytic study. *Review of Higher Education, 13*, 47–61.
- Braxton, J. M., & McClendon, S. A. (2001/02). The fostering of social integration and retention through institutional practice. *Journal of College Student Retention, 3*, 57–71.

- Braxton, J. M., & Mundy, M. E. (2001). Powerful institutional levers to reduce college student departure. *Journal of College Student Retention, 3*, 91–118.
- Braxton, J. M., Sullivan, A. V., & Johnson, R. M., Jr. (1997). Appraising Tinto's theory of college student departure. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (pp. 107–164). New York: Agathon.
- Braxton, J. M., Vesper, N., & Hossler, D. (1995). Expectations for college and student persistence. *Research in Higher Education, 36*, 595–612.
- Brinson, J. A., & Kottler, J. (1995). International students in counseling: Some alternative models. *Journal of College Student Psychotherapy, 9*, 57–70.
- Burke, R. J. (1984). Mentors in organizations. *Group and Organizational Studies, 9*, 353–372.
- Byrd, P. (1991). *Issues in the recruitment and retention of international students by academic programs in the United States*. (ERIC Document Reproduction Service No. ED350891)
- Cabrera, A. F., Nora, A., & Castaneda, M. B. (1993). College persistence: Structural equations modeling test of an integrated model of student retention. *Journal of Higher Education, 64*, 123–140.
- Carey, P., & Mariam, A. (1980). Minoritization: Toward an explanatory theory of foreign student adjustment in the United States. *The Negro Educational Review, 31*, 127–136.
- Carman, R.A. (1975). A long-term study of developmental mathematics. Santa Barbara, CA: Santa Barbara City College. (ERIC Document Reproduction Service No. ED 112 983)
- Carter, C., Bishop, J., & Kravits, S. L. (2011). *Keys to effective learning: Study skills and habits for success* (6th ed.). New York: Allyn & Bacon.

- Cartney, P., & Rouse, A. (2006). The emotional relationship of learning in small groups: highlighting the relationship on student progression and retention. *Teaching in Higher Education, 11*, 79–91.
- Chen, H. J., Mallinckrodt, B., & Mobley, M. (2003). *Attachment patterns of East Asian international students and sources of perceived social support as moderators of the relationship of U.S. racism and cultural distress.*
- Christie, N. G., & Dinham, S. M. (1991). Institutional and external influences on social integration in the freshman year. *The Journal of Higher Education, 62*, 412–436.
- Church, A. (1982). Sojourner adjustment. *Psychological Bulletin, 91*, 540–572.
- Cohen, J., Cohen, P., West, S.G., & Aiken, L.S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.
- Corning, A.F. (2002). Self-esteem as a moderator between perceived discrimination and Psychological distress among women. *Journal of Counseling Psychology, 33*, 295–312.
- Cox, J. (1977). Aspects of transcultural psychiatry. *British Journal of Psychiatry, 130*, 211–212.
- Cross, T. L., Bazron, B. J., Dennis, K. W., & Isaacs, M. R. (1989). *Towards a culturally competent system of care: A monograph on effective services for minority children who are severely emotionally disturbed. Vol. 1.* Washington, DC: CAASP Technical Assistance Center at Georgetown University Child Development Center.
- Cushner, K., & Trifonovitch, G. (1989). Understanding, misunderstanding: Barriers to dealing with diversity. *Social Education, 53*, 318–322.
- Das, A. K., Chow, S. Y., & Rutherford, B. (1986). The counseling needs of foreign students. *International Journal for the Advancement of Counseling, 9*, 167–174.

- Davis, K. (1997). *Exploring the intersection between cultural competency and managed behavioral health care policy: Implications for state and county mental health agencies*. Alexandria, VA: National Technical Assistance Center for State Mental Health Planning.
- Dodd, J.M., Garcia, F.M., and Nelson, J.R. (1995). American Indian student retention. *NASPA Journal*, 33, 72-78.
- Dunlap, W.P., & Kemery, E.R. (1987). Failure to detect moderating effects: Is multicollinearity the problem? *Psychological Bulletin*, 102, 418-420.
- Durkheim, E. (1951). *Suicide: A study in sociology*. Edited by G. Simpson. Translated by J. A. Spalding & E. Simpson. Originally published in 1897. Glencoe, IL: The Free Press.
- Fagenson, A. (1989). The mentor advantage: Perceived career/job experiences of protégés versus non-protégés. *Journal of Organizational Behavior*, 10, 309–320.
- Feagin, J. R., Vera, H., & Imani, N. (1996). *The agony of education: Black students at White colleges and universities*. New York: Routledge.
- Fischer, K. (2009). Foreign-student enrollments are likely to climb, but trouble may lie ahead. *The Chronicle of Higher Education*, 55, 10.
- Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51, 115–134.
- French, J. R., Jr., Rodgers, W., & Cobb, S. (1974). Adjustment as person-environment fit. In G. V. Coelho, D. A. Namburg, & J. E. Adams (Eds.), *Coping and adaptation* (pp. 316–333). New York: Basic Books.
- Furnham, A. (1988). The adjustment of sojourners. In Y. Kim & W. Gudykunst (Eds.), *Cross-cultural adaptation: Current approaches* (pp. 42–61). Newbury Park, CA: Sage.

- Furukawa, T. (1997). Cultural distance and its relationship to psychological adjustment of international exchange students. *Psychiatry and Clinical Neurosciences*, *51*, 87–91.
- Gao, G., & Gudykunst, W. (1990). Uncertainty, anxiety, and adaptation. *International Journal of Intercultural Relations*, *14*, 301–317.
- Garcia, M., & Lega, L. (1979). Development of a Cuban identity questionnaire. *Hispanic Journal of Behavioral Sciences*, *1*, 247–261.
- Gardner, J. N., & Jewler, A. J. (1992). *Your college experience: Strategies for success*. New York: Wadsworth Publishing Company.
- Gartner, A., Kohler, M. C., & Riessman, F. (1971). *Children teach children: Learning by teaching*. New York: Harper & Row.
- Gavin III, J. R. (1989). Issues and strategies in the retention of minority faculty and staff in higher education. In W. E. Ward & M. M. Cross (Eds.), *Key issues in minority education* (pp. 55–77). Norman: University of Oklahoma Press.
- Gilles, R. M., & Ashman, A. F. (2003). An historical review of the use of groups to promote socialisation and learning. In R. M. Gilles & A. F. Ashman (Eds.), *Co-operative Learning: The social and intellectual outcomes of learning in groups* (pp. 1–18). London: Routledge.
- Glennen, R. E., & Baxley, D. M. (1985) Reduction of attrition through intrusive advising. *NASPA Journal*, *22*, 10–14.
- Gloria, A. M., Robinson Kurpius, S. E., Hamilton, K. D., & Willson, M. S. (1999). African American academic nonpersistence at a predominately White institution: Issues of social Support, university comfort, and self-beliefs. *Journal of College Student Development*, *40*, 257–268.

- Gordon, M. M. (1978). *Human nature, class, and ethnicity*. New York: Oxford University Press.
- Granovetter, M. S. (1973). The strength of weak ties. *The American Journal of Sociology*, 78, 1360–1380.
- Griffin, O. T. (1991). Minority student education: Concepts and policies. *Western Journal of Black Studies*, 15, 235–240.
- Grubbs, L. L. (1985). Multicultural training in university residence halls. *The Journal of College and University Housing*, 15, 21–25.
- Gudykunst, W., & Hammer, M. (1988). Strangers and hosts: An uncertainty reduction based theory of intercultural adaptation. In Y. Kim & W. Gudykunst (Eds.), *Cross-cultural adaptation: Current approaches* (pp. 106–139). Newbury Park, CA: Sage.
- Gullahorn, J., & Gullahorn, J. (1963). An extension of the U-curve hypothesis. *Journal of Social Issues*, 19, 33–47.
- Habley, W. R. (Ed.). (2004). *The status of academic advising: Findings from the ACT sixth national survey* (Monograph No. 10). Manhattan, KS: National Academic Advising Association.
- Hallowell, A. I. (1955). *Culture and experience*. Philadelphia: University of Pennsylvania Press.
- Hayes, R., & Lin, H. (1994). Coming to America: Developing social support systems for international students. *Journal of Multicultural Counseling & Development*, 22, 7–16.
- Hedges, L. V., & Majer, K. (1976). A longitudinal comparative study of a process oriented tutorial program. La Jolla, CA: OASIS Research Report No. 5. (ERIC Document Reproduction Service No. ED126835)

- Helland, P. A., Stallings, H. J., & Braxton, J. M. (2002). The fulfillment of expectations for college and student departure decisions. *Journal of College Student Retention, 3*, 381–396.
- Hill, S. K. (1989). Mentoring and other communication support in the academic setting. *Group and Organization Studies, 14*, 355–368.
- Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology, 65*, 599–610.
- Hood, A. B., Riahinejad, A. R., & White, D. B. (1986). Changes in ego identity during the college years. *Journal of College Student Personnel, 27*, 107–113.
- Houston, R. D. (1976). A learning center approach to ESL. In R. Sugimoto (Ed.), *The Spirit of '76: Revolutionizing college learning skills*. Proceedings of 9th annual conference of Western College Reading Association.
- Hoyle, R. H., & Robinson, J. C. (2004). Mediated and moderated effects in social psychological research. In C. Sansone, C. Morf, & A. T. Panter (Eds.), *The Sage handbook of methods in social psychology*. Thousand Oaks, CA: Sage.
- Hurtado, A. (1997). Understanding multiple group identities: Inserting women into cultural transformations. *Journal of Social Issues, 53*, 299–328.
- Hurtado, S., Milem, J. F., Clayton-Pedersen, A., & Allen, W. (1999). *Enacting diverse learning environments: Improving the climate for racial/ethnic diversity in higher education*. Washington, DC: Graduate School of Education and Human Development George Washington University. (ERIC Document Reproduction Service No. ED430513)

- Institute for International Education. (1996). *Open doors 1994-95*. New York: Institute for International Education Books.
- Institute for International Education. (2008). *International students on U.S. campuses at all-time high*. Retrieved from <http://www.iie.org/en/Who-We-Are/News-and-Events/Press-Center/Press-Releases/2008/2008-11-17-International-Students-On-US-Campuses-At-All-Time-High.aspx>
- Institute for International Education. (2010a). *International student enrollment rose modestly in 2009/10, led by a strong increase in students from China*. Retrieved from <http://www.iie.org/en/Who-We-Are/News-and-Events/Press-Center/Press-Releases/2010/2010-11-15-Open-Doors-International-Students-In-The-US.aspx>
- Institute of International Education. (2010b). *Open Doors 2010 fast facts: International students in the U.S.* [Data file]. Retrieved from http://www.iie.org/en/research-and-publications/~/_media/Files/Corporate/Open-Doors/Fast-Facts/Fast%20Facts%202010.ashx
- Jaccard, J., Turrisi, R., & Wan, C.K. (1990). *Interaction effects in multiple regression*. Thousand Oaks, CA: Sage.
- Jackson, J. (2004). Language and cultural immersion: An ethnographic case study. *Regional Language Centre Journal*, 35, 261–279.
- Jacques, D. (2000). *Learning in groups*. New York: Kogan Page.
- Johnson, R. (1996). The adult student: Motivation and retention. *The American Music Teacher*, 46, 16-18, 60-61.
- Jung, E., Hecht, M. L., & Wadsworth, B. C. (2007). *International Journal of Intercultural Relations*, 31, 605–624.

- Kagan, H., & Cohen, J. (1990). Cultural adjustment of international students. *Psychological Science, 1*, 133–137.
- Keller, J. (2008, November 26). Gains in international students help Berkeley fill budget gap. *The Chronicle of Higher Education*.
- Kimbrough, R. M., Molock, S. D., & Walton, K. (1996). Perception of social support, acculturation, depression, and suicidal ideation among African American college students at predominantly Black and predominantly White universities. *Journal of Negro Education, 65*, 295–307.
- Knight, R. (2006, November 13). U.S. visa changes help lure students. *Financial Times*.
- Koehler, I. (1987). Helping student to succeed: A report on tutoring and attrition at the University of Cincinnati. (ERIC Document Reproduction Service No. ED 290 370)
- Kuh, G. D., & Love, P. G. (2000). A cultural perspective on student departure. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 196–212). Nashville, TN: Vanderbilt University Press.
- Kuh, G. D., & Whitt, E. J. (1988). The invisible tapestry: Culture in American colleges and universities. Washington DC: ASHE-ERICD Higher Education Report. (ERIC Document Reproduction Service No. ED299934)
- Lacy, W. (1978). Interpersonal relationship as mediators of structural effects: College socialization in a traditional and an experimental university environment. *Sociology of Education, 51*, 201–211.
- Leary, M. R. (2004). *Introduction to behavioral research methods* (4th ed.). New York: Pearson Education.

- Lee, J., & Rice, C. (2007). Welcome to America? International student perceptions of discrimination. *Higher Education, 53*, 381–409.
- Lin, J. C., & Yi, J. K. (1997). Asian international students' adjustment: issues and program suggestions. *College Student Journal, 31*, 473–480.
- Longhurst, R. (1999). Why aren't they here? Student absenteeism in a further education college. *Journal of Further and Higher Education, 23*, 61–80.
- Lotkowski, V. A., Robbins, S. B., & Noeth, R. J. (2004). *The role of academic and non-academic factors in improving college retention. ACT Policy Report.*
- Lysgaard, S. (1955). Adjustment in a foreign society: Norwegian Fulbright grantees visiting the United States. *International Social Science Bulletin, 7*, 45–51.
- Mabe, S. (2011, March 28). A special wish for Japan. *High Point University Campus Chronicle*, p. 1.
- Maldonado, D. E., Rhoads, R., & Buenavista, T. L. (2005). The student-initiated retention project. *American Educational Research Journal, 42*, 605–638.
- Mangold, W. D., Bean, L. G., Adams, D. J., Schwab, W. A., & Lynch, S. M. (2003). Who goes, who stays: An assessment of the effect of a freshman mentoring and unit registration program on college persistence. *Journal of College Student Retention: Research, Theory & Practice, 4*, 95–122.
- Martin, J. (1992). *Cultures in organizations: Three perspectives*. New York: Oxford University Press.
- Maxwell, M. (1979). *Improving student learning skills*. San Francisco: Jossey-Bass.
- Maxwell, M. (1990). Does tutoring help? A look at the literature. *Review of Research in Developmental Education, 7*, 1–5.

- McClelland, G. H., & Judd, C. M. (1993). Statistical difficulties of detecting interactions and moderator effects. *Psychological Bulletin*, *114*, 376-390.
- McCormack, E. (2007). Number of foreign students bounces back to near-record high. *Chronicle of Higher Education*, *54*, A1-A36.
- McGroarty, M. (1993). *Cross-cultural issues in adult ESL literacy classrooms*. Washington, DC: National Clearinghouse on Literacy Education. (ERIC Document Reproduction Service No. ED358751)
- Murtaugh, P. A., Burns, L. D., & Schuster, J. (1999). Predicting the retention of university students. *Research in Higher Education*, *40*, 355-371.
- Naidoo, V. (2007). Declining foreign enrollment at higher education institutions in the United States: A research note. *Journal of Studies in International Education*, *11*, 215-226.
- Napoli, A. R., & Wortman, P. M. (1998). Psychosocial factors related to retention and early departure of two-year community college students. *Research in Higher Education*, *39*, 427-451.
- Naretto, J.A. (1995). Adult student retention: The influence of internal and external communities. *NASPA Journal*, *32*, 90-97.
- Nikias, C. L. (2008). Attracting foreign students to America offers more advantages. *The Chronicle of Higher Education*, *55*, A46.
- Noe, R. A. (1988). An investigation of the determinants of successful assigned mentoring relationships. *Personnel Psychology*, *41*, 457-479.
- Oberg, K. (1960). Culture shock: Adjustment to new cultural environments. *Practical Anthropology*, *7*, 177-182.

- Oropeza, B., Fitzgibbon, M., & Augustine, B., Jr. (1991). Managing mental health crises of foreign college students. *Journal of Counseling & Development, 69*, 280–284.
- Padgett, V. R., & Reid, J. F., Jr. (2003). Five year evaluation of the Student Diversity Program: A retrospective quasi-experiment. *Journal of College Student Retention: Research, Theory & Practice, 4*, 135–145.
- Pantages, T. J., & Creedon, C. F. (1978). Studies of college attrition: 1950-1975. *Review of Educational Research, 48*, 49–101.
- Pascarella, E. T. (1985). The influence of living on-campus versus commuting to college on intellectual and interpersonal self-confidence. *Journal of College Student Personnel, 26*, 292–299.
- Pascarella, E. T., & Chapman, D. W. (1983). A multi-institutional, path analytic validation of Tinto's model of college withdrawal. *American Educational Research Journal, 20*, 87–102.
- Pascarella, E. T., Smart, J. C., Ethington, C. A., & Nettles, M. T. (1987). The influence on self-concept: A consideration of race and gender differences. *American Educational Research Journal, 24*, 49–77.
- Pascarella, E.T., & Terenzini, P.T. (1991). How college affects students. San Francisco: Jossey-Bass Inc.
- Pascarella, E. T., Terenzini, P. T., & Wolfle, L. M. (1986). Orientation to college and freshman year persistence/withdrawal decisions. *The Journal of Higher Education, 57*, 155–175.
- Person, D. R., & Christensen, M. C. (1996). Understanding black student culture and black student retention. *NASPA Journal, 34*, 47–56.

Poyrazil, S. (2003). Ethnic identity and psychosocial adjustment among international students.

Psychological Reports, 92, 512–514.

Poyrazil, S., & Maraj, K. M. (2007). Barriers to adjustment: Needs of international students

within a semi-urban campus community. *Journal of Instructional Psychology, 34*, 28–45.

Pritchard, M., Wilson, G., & Yamnitz, B. (2007). What predicts adjustment among college

students? A longitudinal panel study. *Journal of American College Health, 56*, 15–21.

Rajapaksa, S., & Dundes, L. (2002). It's a long way home: international student adjustment to

living in the United States. *Journal of College Student Retention, 4*, 15–28.

Ramsay, S., Barker, M., & Jones, E. (1999). Academic adjustment and learning processes: A

comparison of international and local students in first-year university. *Higher Education*

Research & Development, 18, 129–144.

Raven, B. H. (1965). Social influence and power. In I. D. Steiner & M. Fishbein (Eds.), *Current*

studies in social psychology. New York: Holt, Reinhart, and Winston.

Redmond, S. P. (1990). Mentoring and cultural diversity in academic settings. *American*

Behavioral Scientist, 34, 188–200.

Rendon, L. I. (1994). Validating culturally diverse students: Toward a new model of learning and

student development. *Innovative Higher Education, 19*, 33–51.

Rendon, L. I., Jalomo, R. E., & Nora, A. (2000). Theoretical considerations in the study of

minority student retention in higher education. In J. M. Braxton (Ed.), *Reworking the*

student departure puzzle (pp. 127–156). Nashville, TN: Vanderbilt University Press.

Rhodes, C., & Nevill, A. (2004). Academic and social integration in higher education: A survey

of satisfaction and dissatisfaction within a first-year education studies cohort at a new

university. *Journal of Further and Higher Education, 28*, 179–193.

- Rootman, I. (1972). Voluntary withdrawal from a total adult socializing organization: A model. *Sociology of Education, 45*, 258–270.
- Rubenstein, I. (2006). Educational expectations: How they differ around the world: Implications for teaching ESL college students. *Community College Journal of Research and Practice, 30*, 433–441.
- Sam, D. (2001). Satisfaction with life among international students: An exploratory study. *Social Indicators Research, 53*, 315–325.
- Samovar, L. A., Porter, R. E., & McDaniel, E. R. (2009). *Intercultural communication: A reader*. Boston: Wadsworth Cengage Learning.
- Sander, P., Stevenson, K., King, M., & Coates, D. (2000). University students' expectations of teaching. *Studies in Higher Education, 25*, 309–323.
- Schockett, M. R. (1985). Factor analytic support for psychosocial and vocational mentoring functions. *Psychological Reports, 57*, 627–630.
- Schwitzer, A. M., & Thomas, C. (1998). Implementation, utilization, and outcomes of a minority freshman peer mentor program at a predominantly white university. *Journal of The Freshman Year Experience, 10*, 31–50.
- Sedlacek, W. E., & Brooks, G. C. (1976). *Racism in American education: A model for change*. Chicago: Nelson-Hall.
- Shapiro, E. C., Haseltine, F. P., & Rowe, M. P. (1978). Moving up: Role models, mentors and the “patron system.” *Sloan Management Review, 19*, 51–58.
- Sodowsky, G. R., & Lai, E. W. (1997). Asian immigrant variables and structural models of cross-cultural distress. In A. Booth, A. C. Crouter, & N. Landale (Eds.), *Immigration and*

- the family; research and policy on U.S. immigrants* (pp. 211–234). Mahwah, NJ: Lawrence Erlbaum.
- Sodowsky, G. R., & Plake, B. S. (1992). A study of acculturation differences among international people and suggestions for sensitivity to within-group differences. *Journal of Counseling and Development, 71*, 53–59.
- Solberg, V. S., & Villareal, P. (1997). Examination of self-efficacy, social support, and stress as predictors of psychological and physical distress among Hispanic college students: Validation of the College Self-Efficacy Instrument. *Hispanic Journal of Behavioral Sciences, 19*, 182–201.
- Spadling, B., Ferguson, S., Garrigan, P., & Stewart, R. (1999). How effective is group work in enhancing work-based learning? An evaluation of an education studies course. *Journal of Further and Higher Education, 23*, 109–115.
- Spady, W. G. (1970). Dropouts from higher education: An interdisciplinary review and synthesis. *Interchange, 1*, 64–85.
- Spradley, J., & Phillips, M. (1972). Culture and stress: A quantitative analysis. *American Anthropologist, 74*, 518–529.
- Stampen, J. O., & Cabrera, A. F. (1988). The targeting and packaging of student aid and its effects on attrition. *Economics of Education Review, 7*, 29–46.
- Steinglass, P., De-Nour, A. K., & Shye, S. (1985). Factors influencing psychosocial adjustment to forced geographic relocation: The Israeli withdrawal from the Sinai. *American Journal of Orthopsychiatry, 55*, 513–529.

- Stern, G. S., McCants, T. R., & Pettine, P. W. (1982). The relative contribution of controllable and uncontrollable life events to stress and illness. *Personality and Social Psychology Bulletin*, 8, 140–145.
- Surdam, J. C., & Collins, J. R. (1984). Adaptation of international students: A cause for concern. *Journal of College Student Personnel*, 25, 240–245.
- Tabachnick, B. G., & Fidell, L. S. (2007). Using multivariate statistics (5th ed.). New York: Pearson Education, Inc.
- Taylor, J. A., & Bedford, T. (2004). Staff perceptions of factors related to non-completion in higher education. *Studies in Higher Education*, 29, 375–394.
- Thomas, S. L. (2000). Ties that bind: A social network approach to understanding student integration and persistence. *The Journal of Higher Education*, 71, 591–615.
- Tichy, N. (1982). Managing change strategically: The technical, political, and cultural keys. *Organizational Dynamics*, 11, 59–80.
- Tierney, W. G. (1992). An anthropological analysis of student participation in college. *Journal of Higher Education*, 63, 603–618.
- Tierney, W.G. (2000). Power, identity, and the dilemma of college student departure. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 213–234). Nashville, TN: Vanderbilt University Press.
- Tinto, V. (1975). Dropout from Higher Education: A theoretical synthesis of recent research. *Review of Educational Research*, 45, 89-125.
- Tinto, V. (1982). Limits of theory and practice in student attrition. *Journal of Higher Education*, 53, 687–700.

- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago: The University of Chicago Press.
- Tinto, V. (1993) *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: The University of Chicago Press.
- Toyokawa, T., & Toyokawa, N. (2002). Extracurricular activities and the adjustment of Asian international students: A study of Japanese students. *International Journal of Intercultural Relations*, 26, 363–379.
- Tracey, T. J., & Sedlacek, W. E. (1984). Noncognitive variables in predicting academic success by race. *Measurement and Evaluation in Guidance*, 16, 171–78.
- Trujillo, C. M. (1986). A comparative examination of classroom interactions between professors and non-minority students. *American Educational Research Journal*, 23, 629–642.
- Tucker, J. (1998). *Understanding transitions: The first post-secondary term*. Unpublished doctoral thesis, The Ontario Institute for Studies in Education/University of Toronto.
- Tucker, J. E. (1999/2000). Tinto's model and successful college transitions. *Journal of College Student Retention*, 1, 163–175.
- Van Gennep, A. (1960). *The rights of passage* (Trans. M. B. Vizedom & G. I. Caffee). Chicago: University of Chicago Press.
- Vincent, V.C. (1983). Impact of a college learning assistance center on the achievement and retention of disadvantaged students (ERIC Document Reproduction Service No. ED 283 438
- Vittinghoff, E., Shiboski, S.C., Glidden, D.V., & McCulloch, C.E. (2005). *Regression models in biostatistics: linear, logistic, survival, and repeated measures models*. New York: Springer Science + Business Media, Inc.

- Wagley, C., & Harris, M. (1964). *Minorities in the new world*. New York: Columbia University Press.
- Watanabe, C., & Maxwell, M. J. (1975). *Patterns of EOP students' use of the Student Learning Center's Chemistry tutoring program*. Berkeley: Student Learning Center, University of California.
- Wei, M., Ku, T. Y., Russell, D. W., Mallinckrodt, B., & Liao, K. Y. (2008). Moderating effects of three coping strategies and self-esteem on perceived discrimination and depressive symptoms: A minority stress model for Asian international students. *Journal of Counseling Psychology, 55*, 451–462.
- West, S. G., Aiken, L. S., & Krull, J. L. (1996). Experimental personality designs: Analyzing categorical by continuous variable interaction. *Journal of Personality, 64*, 1–49.
- Westwood, M. J., & Barker, M. (1990). Academic achievement and social adaptation among international students: A comparison groups study of the peer-pairing program. *International Journal of Intercultural Relations, 14*, 251–263.
- Westwood, M. J., Lawrance, S., & McBlane, R. (1986). New dimensions in orientation of international students. In K. M. Paige (Ed.), *Cross-cultural orientation: New conceptualizations and applications*. New York: University of America Press.
- Wilton, L., & Constantine, M. G. (2003). Length of residence, cultural adjustment difficulties, and psychological distress symptoms in Asian and Latin American international college students. *Journal of College Counseling, 6*, 177–86.
- Woo, T. O., & Bilynsky, J. (1994). Involvement in extracurricular activities and adjustment to college. Millersville, PA: Millersville University. (ERIC Document Reproduction Service No. ED378474)

- Woolley, J. (1976). A summary of tutorial services offered by California community colleges. *About Tutoring, 1*, 1–7.
- Ying, Y. (2005). Variation in acculturative stressors over time: A study of Taiwanese students in the United States. *International Journal of Intercultural Relations, 29*, 59–71.
- Ying, Y., & Han, M. (2006). The contribution of personality, acculturative stressors, and social affirmation to adjustment: A longitudinal study of Taiwanese students in the United States. *International Journal of Intercultural Relations, 30*, 623–635.
- Yoh, T., Yang, H., & Gordon, B. (2008). Status of participation in physical activity among international students attending colleges and universities in the United States. *College Student Journal, 42*, 1110–1117.
- Zhao, C. M., Kuh, G. D., & Carini, R. M. (2005). A comparison of international student and American student engagement in effective educational practices. *The Journal of Higher Education, 76*, 209–231.
- Zimmerman, S. (1995). Perceptions of intercultural communication competence and international student adaptation to an American campus. *Communication Education, 44*, 321–335.
- Zogby, J. (2009, May). Send more U.S. students abroad. *Forbes*. Retrieved from <http://www.forbes.com/2009/05/06/foreign-exchange-american-students-opinions-columnists-john-zogby.html>
- Zwingmann, C. A., & Gunn, A. D. (1983). *Uprooting and health: Psycho-social problems of students from abroad*. Geneva: World Health Organization, Division of Mental Health.

Appendix

Study Title: Retaining International College Students: Promoting Proactive Institutional Support Services for Successful Adjustment

Questions for Instrument

This is a survey that is gathering information on the experiences of international college students. The purpose of this survey is to study ways in which colleges and universities can better serve international students. This survey is anonymous and confidential. The information will only be used for the purposes described above. If you do not wish to provide a response to a particular question, please feel free to skip past that item and continue to complete the survey. If at any point during this survey, you do not wish to continue to participate in the study, you may keep the survey and destroy it or ask the person administering the survey to destroy it. **DO NOT PUT YOUR NAME ANYWHERE ON THIS SURVEY AS IT IS COMPLETELY VOLUNTARY AND ANONYMOUS.**

For any additional questions, you may contact the researcher (Craig Curty, ccurty@highpoint.edu, 336-905-5251). Thank you.

Demographics

1. Please indicate your gender: Male or Female **(Circle the selection)**
2. What is your current age? _____
3. What is your country of origin? _____
4. How many years have you lived in the United States? _____

The rest of this questionnaire asks you to provide information for the Fall Semester 2010.

5. What college or university do you attend? _____
6. What is your academic major? _____
7. At the end of Fall Semester 2010, how many credit hours will you have completed? _____
8. What is your current overall grade point average (GPA)? _____
9. How many credit hours are you currently enrolled in during Fall Semester 2010? _____
10. Explain what situation could potentially make you leave college without graduating.

11. Do you live with an American student who does not speak your language?

Yes No

Presence of an International Student Office

12. Does your institution have an international student office? **(Circle your answer)**

Yes No Don't know

If yes, answer questions 13-14.

If answering no or don't know to question 12, then go to question 15 on the next page.

13. During Fall Semester 2010, about how many times did you visit the international student office per **week**?

14. Prior to attending classes, did you participate in an international student orientation program?

Yes No Don't Know

15. As an international student, what types of assistance would you like to have that you currently do not have at your school? Ex: tutoring, English conversation groups, mentors, transportation, etc.

16. In your opinion, what services or programs help you most with your class work?

Academic Support Services

17. In Fall Semester 2010, how many hours did you work per **week** with a tutor? _____

18. In Fall Semester 2010, about how many hours did you meet with your academic advisor to plan your course schedule? _____

19. In Fall Semester 2010, about how many hours did you meet your academic advisor to discuss your grades or academic work? _____

20. In Fall Semester 2010, how many hours did you meet per **week** with a study group? _____

Non-academic activities

21. In Fall Semester 2010, how many hours did you participate per **week** in intramural sports?

22. Are you a member of a school sponsored club or organization?

Yes

No

If Yes, answer questions 23 & 24. If no, go to question 25.

23. List clubs or organizations you participate in during the 2010 fall semester and how many hours per week you participated in each.

Clubs

Participation Hours

24. In Fall Semester 2010, how many hours per **week** did you participate in university sponsored non-academic off-campus events, activities, field trips, etc.? _____

Retention

Questions 25-39 are taken with permission from Western Psychological Services and use Baker and Siryk's (1984) Attachment Scale from the Student Adjustment to College Questionnaire (SACQ).

25. I feel that I fit in well as part of the college environment.

Strongly Disagree Disagree Neutral Agree Strongly Agree

26. I am meeting as many people and making as many friends as I would like at college.

Strongly Disagree Disagree Neutral Agree Strongly Agree

27. I am pleased now about my decision to go to college.

Strongly Disagree Disagree Neutral Agree Strongly Agree

28. I am pleased now about my decision to attend this college in particular.

Strongly Disagree Disagree Neutral Agree Strongly Agree

29. I enjoy living in a college dormitory. (Please omit if you do not live in a dormitory; any university housing should be regarded as a dormitory.)

Strongly Disagree Disagree Neutral Agree Strongly Agree

30. I wish I were at another college or university.

Strongly Disagree Disagree Neutral Agree Strongly Agree

31. I am satisfied with the number and variety of courses available at college.

Strongly Disagree Disagree Neutral Agree Strongly Agree

32. I am having difficulty feeling at ease with other people at college.

Strongly Disagree Disagree Neutral Agree Strongly Agree

33. I expect to stay at college for a bachelor's degree.

Strongly Disagree Disagree Neutral Agree Strongly Agree

34. I feel I am very different from other students at college in ways that I don't like.

Strongly Disagree Disagree Neutral Agree Strongly Agree

35. On balance, I would rather be home than here.

Strongly Disagree Disagree Neutral Agree Strongly Agree

36. Lately I have been giving a lot of thought to transferring to another college.

Strongly Disagree Disagree Neutral Agree Strongly Agree

37. Lately I have been giving a lot of thought to dropping out of college altogether and for good.

Strongly Disagree Disagree Neutral Agree Strongly Agree

38. I find myself giving considerable thought to taking time off from college and finishing later.

Strongly Disagree Disagree Neutral Agree Strongly Agree

39. I am quite satisfied with my social life at college.

Strongly Disagree Disagree Neutral Agree Strongly Agree

40. Do you plan to return to the same school next year? (Circle the selection)

Yes No Don't Know Graduating

If you answered “No” to question 40, please describe the reason:

If you attend a school having an International Student Office, then answer the questions below.

Please read each statement below and circle the response that best describes how you feel. You are to choose one of the following: strongly disagree, disagree, neutral, agree, or strongly agree. Be sure to respond to each statement.

41. The international student office at your school encourages you to use academic support services at your school (For example: tutoring, academic advising, writing center, etc.). **(Circle your answer)**

Strongly Disagree Disagree Neutral Agree Strongly Agree

42. The academic support services provided help you function better in your classes. **(Circle your answer)**

Strongly Disagree Disagree Neutral Agree Strongly Agree

43. Using academic support services seems to help increase your GPA. **(Circle your answer)**

Strongly Disagree Disagree Neutral Agree Strongly Agree

44. The International Student Office at your school encourages you to participate in non-academic activities (intramural sports, volunteer, etc.). **(Circle your answer)**

Strongly Disagree Disagree Neutral Agree Strongly Agree

45. An International Student Office is helpful to your academic success. **(Circle your answer)**

Strongly Disagree Disagree Neutral Agree Strongly Agree

46. An international student office helps international students. **(Circle your answer)**

Strongly Disagree Disagree Neutral Agree Strongly Agree

Thank you for completing this survey.