Exploring the Transition Experiences of Successful International Undergraduate Students at a Public Research University in the USA: The Impact on International Student Success and Retention

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Exploring the Transition Experiences of Successful International Undergraduate Students at a Public Research University in the USA: The Impact on International Student Success and Retention

by

Laurie-Ann M. Spencer

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Curriculum and Instruction with an emphasis in Higher Education Administration Department of Leadership, Counseling, Adult, Career, Higher Education College of Education University of South Florida

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Keywords: persistence, adjustment, internationalization of higher education, student support

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Dedication

I dedicate this dissertation to my parents, Peter and Cecelia Spencer, who never wavered in their support throughout my entire doctoral journey. Their constant encouragement, interest, wisdom, belief in me and unconditional love played a significant part in helping me to achieve this goal. Thank you for always encouraging me to follow my dreams and for your help in making all my international student experiences (undergrad and grad) successful.
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“Ad astra, per aspera” – through difficulties to the stars. My old high school motto still rules!

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Abstract

This qualitative study utilized surveys, interviews and document review to explore the transition experiences of international students at a large, public research university, specifically as it relates to their persistence and success. Within the context of challenges that they face, the study examined factors that the students perceived as jeopardizing their success and further explored both institutional and personal factors these students perceived as enhancing their success and persistence.

Findings revealed that academic challenges tended to occur during the first year and included teaching styles, course-load/assignments, language issues, time management and understanding the US academic system. Social and cultural challenges included homesickness, cultural misunderstandings, culture-shock and language barriers. Daily living challenges included transportation, finances, food, visa/immigration issues, job restrictions and housing.

The study results also indicated that students utilized a blend of coping strategies, support systems and personal strengths to overcome these challenges and persist. More specifically, students identified campus involvement, family support, friend support and university support services as integral to their success. The findings from this study have implications for faculty, as well as student affairs, international services and orientation practitioners as they identify international student needs and challenges as well as factors that positively impact international student persistence and success.
Chapter One – Scope and Need

Introduction

The Institute of International Education (IIE) is one of the world’s largest, leading authorities on international education and conducts research related to a variety of global higher education issues and policies (IIE, 2015). According to an IIE Open Doors report, there were 886,052 foreign students enrolled in universities in the United States of America in 2013-2014, an 8% increase over the previous year (Open Doors, 2014). The Department of Commerce calculated that in 2013, international students contributed approximately $26.8 billion to the economy through their tuition and living expenses expenditures and they supported 340,007 jobs throughout the USA (Open Doors, 2014). This represents an 8.5% increase in job support and a 12% increase in expenditures (Open Doors, 2014). Over 64% of all international students (undergraduate and graduate) are funded by personal or family funds (Open Doors, 2014) and over 80% of all undergraduate international students are self-funded (Open Doors, 2013). The report also indicates that there were more undergraduate (41.8%) than graduate (37%) international students in 2013 (Open Doors, 2014). The enrollment of new international students increased by 7.5% to 270,128 students in 2013 (Open Doors, 2014). These statistics substantiate the fact that international students are a large and growing population whose needs, concerns and successes necessitate the attention of student affairs and other university administrators. They also indicate the significant financial contribution that international students make to university campuses and the economy of the United States of America.
There is a fair amount of research on the topic of international student transition. In general, the research indicates that international students face a number of challenges in their transition experience and could benefit from support services. Services offered at some institutions include specialized advising, remedial English or ESL classes, mental health services and generally increased support services to assist international students with academic, social and cultural challenges (Pope, 2012). According to a Noel-Levitz (2013) study of 263 colleges and universities (which included 80 four-year public universities), while 56% of four-year public institutions provided programming specifically for the retention of international students, only 27% felt that the programs were very effective and 48% felt their programs were somewhat effective.

This qualitative study explored the challenges that affect international student retention and success in order to identify impact factors, useful interventions and programming, rationales for responding to the unique needs of this particular student population and made recommendations regarding the implications for practice within higher education.

**Background**

Services such as academic and cultural orientation programs are considered helpful in assisting international students to transition successfully (Zhai, 2002). Peer support programs are also seen as beneficial. In Abe et al.’s (1998) study, international students who participated in an international peer program scored significantly higher on social adjustment scores on the Student Adaptation to College Questionnaire. According to Boyer and Sedlacek (1988), the strongest non-cognitive predictor of international students’ academic achievement (and helping to overcome language proficiency limitations and cultural issues) was peer support. It has also been suggested that acculturation classes may be beneficial to students to help them deal with culture
shock and isolation and to help them manage expectations of American classroom/academic culture (Fusch, 2011). Adjusting to the American classroom culture is another factor that international students face, as many are used to listening rather than speaking in classes (Smithee, et al. 2004).

According to Wang (2009), the difficulties that international students face can adversely affect their life experience and academic achievement. Wang (2009) indicated that there is variance in adjustment levels among international students with some adjusting easily and others who find it very difficult. Factors such as age, gender, English proficiency and personality variables (such as interpersonal skills and flexibility) all have a significant impact on adjustment (Wang, 2009). However, once adjustment (harmony between the individual and his/her environment) is achieved, this results in feelings of satisfaction and comfort, improved performance and increased interaction with host country individuals (Wang, 2009).

In determining what is important to international students, Domville-Roach (2007) and Ikwuagwa (2010) identified some academic values (quality education, knowledgeable faculty and strong instruction) along with some quality of living values (safety and security). Bista and Foster (2011) also indicated that finances (having a limited income because student visa status restricts international students to on-campus employment only) and misconceptions between student expectations and academic programming are factors that impact retention of international students. Tas (2013) opined that although there are some needs related to academics and educational goals, many international student needs are non-academic and are more related to support services to assist with living conditions, finances, social interactions and acculturation issues.
NASPA (2015) described student affairs as a division of professionals that provides services, programs, and resources that help students learn and grow outside of the classroom. With a significant need for support services, the role of student affairs departments in supporting international students in their transition process is key. Offering specific student affairs programming and also partnering with academic departments can help to provide an environment in which international students can succeed and thrive. Wood and Kea (2000) suggested that part of the student affairs department’s role goes beyond the general orientation to helping to facilitate a smooth transition to a new educational system, providing on-going support in cross-cultural and academic adjustment, creating social and co-curricular programming and providing advising on student visa and immigration matters/regulations. Student affairs departments would be responsible for addressing many of the contributing factors identified by Tas, as cited in Smith and Demjanenko (2011) as reasons that international students leave higher education institutions.

The findings from Tas’ study of 43 international students at a university in Texas included:

- issues with social relationships (including difficulties in forming friendships with domestic students, discrimination and language barrier problems);
- adjusting to food on campus (expense, taste and lack of variety for observation of religious restrictions);
- lack of support from international student’s office;
- lack of academic assistance (unsatisfactory and inadequate advising experiences);
- lack of cultural and social activities (lack of social support and feelings of isolation);
- issues with housing (restrictive policies and having to move frequently);
- misinformation given prior to arrival (creating a lack of trust).
While this was a small study, the findings correspond with some of the general transition issues that international students face and they support the fact that some transition difficulties can have a directly negative impact on student persistence and success.

International student transition issues are complex and encompass more than just social and daily living challenges. Andrade (2005) identified English proficiency, interaction with teachers, the expectation of class participation, language skills and unfamiliarity with American culture as some of the main challenges for first-year students. Johnson’s (2008) study highlighted additional challenges as students reported lacking information on admissions processes, were uncertain about their safety on campus and faced challenges with language, work, finances and cultural issues. As campuses welcome increasing numbers of international students, it is important to recognize these factors as target areas for support, sources of challenge and elements of retention risk.

As higher education institutions focus on internationalizing their campuses, the benefits of having international students on campus take center stage. Common benefits identified in the literature include increased tuition revenue from out-of-state fees, offsetting the decline in domestic student enrollment and cultural opportunities for those in the host communities (Ehringhaus & Ehringhaus, 2011). Breuning (2007) highlighted the fact that part of the value of international education is personal enrichment along with attaining intercultural competence. She defined intercultural competence as the ability to see both the unique aspects of cultures as well as the commonalities between them and suggests that intercultural competencies are closely linked to the development of higher order thinking skills such as the ability to perceive and understand different perspectives (Breuning, 2007). Intercultural competency skills are seen as necessary in preparing students for a globalized world, and international students can play a role
in helping their American peers to develop these skills and enhance global awareness, while they benefit from the cultural interaction (Breuning, 2007).

The focus on intercultural competency skills has become increasingly relevant as higher education institutions prepare students to be globally minded citizens who can function in a multi-cultural environment and successfully navigate culturally diverse settings and challenges in the work-place. Defining intercultural competency continues to be a research topic of discussion. Deardorff (2006) created an intercultural competence model with five main elements – attitudes (respect for and openness to other cultures), knowledge and comprehension (cultural self-awareness), skills (listening, observation and ability to relate), internal outcomes (shift in frame of reference, adaptability) and external outcomes (appropriate behavior in intercultural situations). These are elements that can be assets for students in both domestic and international settings.

There are clear benefits to having international students enrolled in higher education institutions, which may be the impetus for a growing focus on retention, as some colleges have recently seen a decline in international student retention rates (Mehrotra, 2014). Two recent studies focused on the issue of international student retention. Fischer (2014), highlighted Kwai’s study of international undergraduate students in two Midwestern university systems to determine which factors contribute to their retention. This study revealed that 1st year, spring semester GPA, number of credit hours taken and having an on-campus job were statistically significant factors. In another study by Di Maria at five public universities in Ohio, it was revealed that student affairs staff did not feel prepared and needed more training to work with and meet the additional/special needs of international students on their campuses (Fischer, 2014).
A recent national research study of more than 500 international undergraduate students at approximately 80 institutions revealed the top three factors contributing to students’ premature departure from universities. The main factors were access to jobs or internships (37%), affordability (36%) and availability of scholarships (34%), while other factors included dissatisfaction with meal plans (26%) and quality of housing (17%) (NAFSA Infographic, 2014; Choudaha & Schulmann, 2014). Another major component of this study was a parallel survey of 480 international education professionals at 100 higher education institutions which revealed their top five factors leading to international student attrition as institutional reputation/fit (67%), financial issues (64%), academic challenges (62%), poor English Language skills (40%) and disliking location (34%) (Choudaha & Schulmann, 2014; Redden, 2014).

Other interesting aspects to note regarding this study are the differences in good practices suggested by the two groups of respondents (students and administrators). While international students identified financial assistance such as scholarships (65%), on-campus jobs (48%), career services (48%), academic advising (31%) and student life activities (30%) (with all categories geared towards the unique needs of international students) as good practices to improve/encourage international student retention in higher education institutions, international education professionals at higher education institutions identified student life activities (54%), international student orientation on arrival (53%), tracking/early warning for academic and visa issues (53%), writing or tutoring services (51%) and financial assistance such as emergency funds and on-campus jobs (48%) as the most effective ways to improve international student retention (Choudaha & Schulmann, 2014).

Choudaha and Schulmann’s (2014) study also revealed that international students who transferred to another institution primarily relied on funding from family and friends (84%),
grants and funding from their home countries (22%) and financial aid/scholarships given by their United States institution (20%). In comparison, those international students who were retained (did not plan to transfer) primarily relied on funding from their family and friends (72%), financial aid/scholarships from their United States institution (45%) and funding/grants from their home countries (16%), (Choudaha & Schulmann, 2014).

The aforementioned study is important on two levels. First, it reveals a dominant factor of financial issues and concerns that can impact international student persistence in universities in the USA. Additionally, it indicates a gap in perceptions of administrators regarding major contributing risk factors for international student persistence as compared to the realities indicated by the international students. This study bolsters and illuminates the need for continued research and dialogue regarding risk factors for international student persistence and success and the need to bring awareness of these retention issues and dynamics to higher education administrators.

**Purpose of the Study**

While there are several studies about the international student transition process, not many focus on the institutional impact as it relates to international student retention and success. There were two major foci of this qualitative study: student success and institutional support. It explored the transition experiences of undergraduate international students at a large, public research university in the USA within the context of student success and persistence. It also examined the impact that institutional support has on international student persistence. The study also focused on the lived experience of international students as they reflected on how their transition experience impacted their persistence and success as well as institutional factors that played a role.
Research Questions

Given the scope of challenges and the potential impact to both students and the institution, the following research questions were posed:

1. What specific academic challenges do successful international undergraduate students at a public research university in the USA perceive as jeopardizing their success and persistence?

2. What specific social, cultural and daily living challenges do successful international undergraduate students at a public research university in the USA perceive as jeopardizing their success and persistence?

3. How do successful international undergraduate students at a public research university in the USA respond to the academic and other challenges that they perceive as jeopardizing their success and persistence?

4. What institutional, social and other support systems do successful international undergraduate students at a public research university in the USA perceive as contributing to their success and persistence and how do they use those support systems?

Significance of the Study

There is growing commitment by some higher education institutions to internationalize their campuses through increased international student enrollment (IIE Press Release, 2013). However, the literature demonstrated that the growth in the international student population comes with its own unique set of challenges and impact. Furthermore, the undergraduate international student transition process can be challenging, especially for new students. The literature indicated that new international students have to overcome many obstacles during their
transition process. While many of these challenges are common, they can also vary by institution and by student and can have a lasting impact on student success and retention.

Identifying some of the specific challenges faced by undergraduate international students can help administrators be aware of the support gaps. This information could be useful in formulating a targeted set of goals for improvement in services offered to international students which could potentially impact their overall experience, academic success and retention rates. It can also provide another level of assessment regarding the economic costs of a negative international student transition experience.

**Delimitations/Assumptions**

Delimitations can be defined as factors that may significantly affect the study but, unlike limitations, are controlled by the researcher (Mauch & Park, 2003). Essentially, delimitations are integral to the study as “they tell the reader what will be included, what will be left out, and why” (Mauch & Park, 2003, p. 115). Delimitations for this study included:

1. The study comprised one 4-year public research university in the southern United States.
2. Only final-year international students (F1 visa holders) who enrolled as first-time in college (not transfer or exchange) students were included in the study.
3. The international students studied may be different from those who began their studies at the institution more recently.
4. There was a complex population of international students at the sample institution which may not be representative at other institutions.

Assumptions for this study include:
5. The study relied on memories of transition experiences for parts of the qualitative data gathered. It was assumed that the memories were correct.
6. The study assumed that the feedback from international student participants was open and honest.

Definition of Terms

*Acculturation:* Cultural modification of an individual, group, or people by adapting to or borrowing traits from another culture; *also:* a merging of cultures as a result of prolonged contact (Merriam-Webster, n.d.).

*Attrition:* When a student does not re-enroll for consecutive semesters at an institution (Seidman, 2005).

*Drop-out:* A student who does not complete their intended goal of completing a degree (Seidman, 2005).

*Full-time studies:* A minimum of 12 credit hours per semester for undergraduate students and 9 credit hours per semester for graduate students (F-1 Student Information, n.d.).

*Green-card holder/permanent resident:* A person who is given permission by US Immigration and Naturalization Services to lawfully reside and work full-time in the United States of America for an unlimited period of time. (US Citizenship & Immigration Services, n.d.).

*Intercultural competence:* A set of attitudes and skills required to function in diverse cultural settings. “The components of intercultural competence are knowledge, skills and attitudes, complemented by the values one holds because of one’s belonging to a number of
social groups, values which are part of one’s belonging to a given society” (Byrum, Nichols, & Stevens, 2001, p. 5).

*Internationalization:* “Internationalization includes the policies and practices undertaken by academic systems and institutions—and even individuals—to cope with the global academic environment” (Altbach and Knight, 2007, p. 290, abstract).

*International student:* A person who is given permission by US Immigration and Naturalization Services to enter and reside in the United States of America for a limited period of time for the purpose of educational studies. This authorization is granted in the form of a student visa (either F1 student or J1 exchange student visa) for full-time studies at an accredited institution that will result in a degree. The term “international students” does not include students who are legal permanent residents (green-card holders) of the United States. (US Citizenship & Immigration Services, n.d.).

*Persistence:* A student’s desire and action to stay within a system of higher education from enrollment through degree completion (Seidman, 2005).

*Retention:* An institution’s ability to retain a student from admission to a degree program through graduation from it or from semester to semester (Seidman, 2005).

*Stop-out:* A student who withdraws from an institution temporarily (Seidman, 2005).

*Student Affairs:* A division that provides services, programs, and resources that help students learn and grow outside of the classroom. These include but are not limited to: enhancing student learning, guiding academic and career decisions, mentoring students, promoting leadership skills and counseling students through crises (NASPA, n.d.).
Student Success: Academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competencies, persistence, attainment of educational objectives, and post-college performance (Kuh, 2006).

Transition: An event or non-event that over time, results in changed relationships, routines, assumptions and roles (Schlossberg, 1995).

Undergraduate student: A student enrolled in post-secondary education pursuing an Associates or Bachelor’s degree.

Voluntary departure: When a student chooses not to re-enroll at an institution (Seidman, 2005).

Work Authorization/Restrictions: International students must adhere to work restrictions implemented by the US Immigration and Naturalization Services, based on their student visa status. International students are only authorized to work on the campus in which they are enrolled and are restricted to a maximum of 20 hours per week in the Fall and Spring semesters, but can work up to 40 hours per week during semester breaks. Special permission can be granted for off-campus work after the first year of study for optional practical training and curricular practical training. (US Citizenship & Immigration Services, n.d.).

Organization of the Study

The remainder of the study is organized into four chapters, followed by a reference list and appendices. In Chapter Two, the review of literature relating to international student transition experiences, acculturation, internationalization, student success and retention is presented. In Chapter Three, the methodology is described and rationalization of the research design is presented. Details regarding the sample and participant selection, data collection
instruments, instrument verification, pilot study and development of the instrument are provided. In Chapter Four, the results of the study are presented. In the final chapter, Chapter Five, there is a discussion of the significance of the results, the implications for practice and suggestions for future research.
Chapter Two – Literature Review

This chapter provides a review of literature relating to international student transition experiences, acculturation, internationalization, student success and retention. The internationalization of higher education sets the background for the increasing numbers of international students that come to study in the United States of America. A general exploration of the genesis, implementation and importance of internationalization follows. The discussion regarding acculturation (including culture shock and acculturative stress) provides a context for a major cultural and assimilation challenge that many international students face. The literature on international student transition experiences details the variety of adjustment issues that they face and the interventions that have helped. The critical issue is the matter of international student success. Therefore, the chapter also provides an overview of general student success, retention and persistence with a specific focus on the factors identified that both hinder and support international student success and retention.

Internationalization of Higher Education

The growth in international student enrollment in USA universities can be attributed in large part to increased recruitment efforts (backed by increased recruitment funding and staff at some institutions), the visibility of and reputation of USA institutions abroad and partnerships between USA universities and foreign institutions (IIE Report, 2013). These factors are directly related to the process of internationalization which provides a background and rationale for international student recruitment.
While internationalization mainly became significant within education in the 1980’s (Knight, 2008), internationalization in higher education has been somewhat of a trend over the past couple decades and has become a significant part of some institutional strategic plans and goals. This focus on internationalization by higher education institutions has developed in response to the changing social, technological, economic and political environments and challenges around the globe (Bartell, 2003). In examining the literature it is clear that internationalization is often hard to define, is manifested in various ways and is sometimes confused with globalization. According to Knight (2004), the internationalization of higher education is a process which involves the integration of international and intercultural facets into teaching, research and service. In comparison, globalization is the exchange of people, knowledge, ideas, economies and technology across borders (Knight, 2007). Bartell (2003) further discussed the definition of internationalization and notes that there is broad interpretation of internationalization among scholars ranging from a simple view (involving funding international education, research and student exchange initiatives) to a more systemic approach (involving the integration of internationalization into the curriculum, research and culture of the institution).

Internationalization impacts and guides an institution’s goal, mission and vision statements, implementation initiatives, allocation of resources and timelines. Issues to be considered regarding internationalization include ensuring quality control, regulating programs offered and accreditation of programs. Forms of internationalization include study abroad initiatives, international studies degrees or certification, English language transition programs, exchange study programs, branch campuses overseas and programming for international students (Altbach & Knight, 2007).
Knight (2008), in outlining the evolution of internationalization, revealed that internationalization was primarily concerned with study abroad, language studies, recruitment of international students, a focus on global/intercultural competencies and other development activities. However, she indicates that more recently, the focus has shifted to academic mobility (with an emphasis on cross-border research/teaching and student exchange) and the development of international academic partnerships and networks (giving rise to joint degrees and satellite/branch campuses) (Knight, 2008).

According to Altbach and Knight (2007), the main goals of internationalization for traditional non-profit universities are to further research and learning and to promote cross-cultural understanding. They suggested that additional effects of internationalization include significant economic gain through higher tuition charged to international students and large expenditure by international students in the host countries (contributing significantly to the economy). Altbach and Knight (2007) described the internationalization of higher education as the policies and practices used by academic institutions to manage the increasingly global environment of higher education and they indicated that while related, internationalization is distinctly different from globalization (which relates more to worldwide economic trends and global mobility). More specifically, Knight (2008) indicated that globalization involves the movement of people, cultural ideas/norms, technology and knowledge across countries. Globalization facilitates the free exchange of educational services across borders, promotes the commercialization of higher education and supports the development of international governance and quality assurance regulations and policies (Knight, 2008).
Implementing Internationalization

Childress’s (2009) study examined the implementation of internationalization plans at 31 higher education institutions and found that a written internationalization plan helps set the focus for institutional goals/mission and can generate involvement from both external partners and stakeholders within the campus community. She indicated that the internationalization plan can also help to explain and define the internationalization process and its benefits, foster collaboration across disciplines and departments in the implementation process and be used as a vehicle for fund-raising efforts (Childress, 2009). Support from senior level administrators and campus leaders is a key element in the effective implementation of internationalization across campuses as well as for sustaining internationalization goals (Childress, 2009).

Agnew and VanBalkom (2009) conducted a study utilizing the Cultural Readiness for Internationalization (CRI) model (an instrument based on cultural change theory which is used to check for an institution’s readiness for implementing internationalization). They found that an institution’s organizational culture greatly impacts the internationalization process and strong cultures with external orientation, clear values and a flexible system of negotiating practices are usually the most successful at adapting to change via internationalization. Along with institutional cultural practices/environments they found that internationalization is best advanced through support from faculty and students at the micro-level and at the meso-level from the organization through its policies, structures, mission, funding allocations, values and senior leadership support (Agnew & VanBalkom, 2009). Bartell’s (2003) study corroborated that successful, sustained internationalization is significantly influenced by both senior leadership and the internal culture of the organization/institution.
It is evident that internationalization takes intentionality and support to be successful in its implementation. The internationalization of higher education is an ongoing process of integrating international and intercultural facets into an institution’s policies, programs, mission, teaching, research and outreach to the wider community (domestic and/or international), (Knight, 2007; Teichler, 2004). Driving forces behind internationalization include political, economic, academic and social/cultural motives (De Wit, 2009; Knight, 2007; Teichler, 2004).

Clearly, internationalization in higher education has set the stage for the recruitment, inclusion and integration of international students at universities and colleges in the USA. While internationalization plans might determine goals and guide strategic plans, written intentions must be accompanied by an understanding of the practical implications and factors involved for both the students and the campus. For example, considering the needs and challenges of the international student population and how they can be managed may include the provision of an international student services department to handle visa and immigration paper-work and processes and may also include services to address acculturation and adjustment issues. In the next sections several of these adjustment issues will be discussed.

**Acculturation**

In addition to the general transition issues that college students encounter, international students inherently face the issue of acculturation when they choose to study and live in another country. Organista, Marin, and Chun (2010) defined acculturation as an on-going, multifaceted process of change that takes place when two cultures connect/intersect over a long period of time. They further expound on Milton Gordon’s 1964 definition which describes acculturation as adopting the patterns and norms of the dominant culture. This acculturation process often involves quicker changes in cultural traits (such as language, expressing emotions and clothing
styles) than intrinsic factors (such as changes in religious beliefs, values and norms) (Oganista et al., 2010). Yue and Le (2012) described acculturation as a change in the psychology of an individual. This interpretation of acculturation was supported by Berry (1997) who defined acculturation as cultural changes that occur when persons adapt from one cultural context to another, and who added that psychological changes (as well as economic changes) are a part of the adaptation process.

**Assimilation**

Ward, et al. (2001) described assimilation as the gradual or forced adoption of customs, values, lifestyle and language of the dominant culture. Berry (1997) indicated that the terms assimilation and acculturation have become blurred and are not easily defined. Acculturation occurs on both a group and individual level and can be reactive (resistant to change), creative (producing new cultural forms) or delayed (significant change occurs over a long period of time) (Berry, 1997). Berry (1997) described a two-fold strategy for dealing with acculturation:

- Persons facing acculturation essentially have to decide how much they value their cultural identity and assess their level of need to maintain this identity (a process termed cultural maintenance).
- Persons also have to determine their level of involvement with other cultural groups (an integration process of contact and participation with others).

According to Berry (1997), in a positive assimilation outcome, persons fit into their new environment and are accepted by the dominant society while in a negative assimilation outcome persons can experience conflict and stress as a result of feeling segregated and marginalized. In Berry’s (1997) cultural framework, while factors such as age, gender, education, motivation for
migrating, expectations, personality and cultural distance are moderating variables before acculturation takes place, during acculturation, length of time, acculturation strategies used, coping resources, social support and the presence of either prejudice and/or discrimination are the moderating variables.

Ward, et al., (2001) presented another perspective regarding assimilation which they framed as cultural contact and personal identity. They explained that some persons reject their original culture (resulting in loss of ethnic identity) while others reject their host culture (resulting in a nationalistic view). Additionally, some persons fluctuate between their original and host cultures (which can lead to conflict and identity confusion) while others blend both cultures (ultimately leading to personal growth) (Ward, et al, 2001).

**Culture Shock**

Oberg (1960) equated the cultural adaptation process with culture shock which he explains involves the unease we feel when we are out of our cultural comfort zone and have lost some of our familiar cultural norms and social cues. He explained that when faced with this anxiety, persons reject the source of their unease, and may also enter a regression phase in which they cling to and venerate their home culture. Symptoms of culture shock can range from obsessive-compulsive behaviors to depression and withdrawal, to anger and anti-social behavior or to paranoia, overreaction and homesickness (Oberg, 1960).

There are four phases of culture shock: the first is the “honeymoon” phase in which persons are fascinated by their new environment; the second phase involves the onset of frustration, anxiety and anger; the third is the “recovery” phase characterized by crisis resolution and culture learning; the fourth phase comprises a process of adaptation/adjustment (Oberg,
According to Zhou et al. (2008), the concept of culture shock has shifted to adaptation and acculturation instead, giving rise to the notion that persons are actively involved in managing the process of change and its resulting effects. They indicate that there are three models of acculturation: the uni-dimensional model in which persons relinquish their original cultural identity and begin to identify with the new culture; the bi-dimensional model in which persons synthesize cultures and develop bi-cultural identity and the categorical model which encompasses integration, separation, assimilation and marginalization (Zhou et al., 2008). Ward, et al. (2001) take a different approach to culture shock with their ABC (Affect, Behavior and Cognitions) model of culture shock. Affect relates to stress and coping factors that contribute to psychological adjustment; behavior relates to social rules and norms including verbal and non-verbal communications; cognitions relates to personal, social and cultural identity as well as stereotypes and judgments regarding persons from other cultures (Ward, et al., 2001).

It is evident that the processes of acculturation, assimilation and culture shock can be an overwhelming experience with a significant impact on persons going through this transition. The ongoing process of preserving and relinquishing identity and managing the various changes associated with the cultural adjustment phase are factors that should be recognized as an added layer of adjustment challenges faced by international students.

**Cross-cultural Adaptation**

Another field of thought is cross-cultural adaptation which moves beyond adjustment to include a broader scope of changes. Anderson’s (1994) model comprises six principles of cross-cultural adaptation: it includes adjustment, learning occurs, it involves a relationship between
stranger and host, it is cyclical and continuous, it is relative in nature, and it facilitates personal development. Within this model, there are three driving factors that are key to persons coping with and overcoming the challenges of adjustment and culture shock. These factors are, being willing to be open to new cultural influences, being willing to face adjustment challenges directly and committing to not running away (Anderson, 1994). Furnham and Bochner (1986) (as cited in Kovtun, 2011) indicate that higher levels of dissonance between the host culture and original culture makes it more difficult for students to adjust and learn to adapt. Essentially, cultural and ethnic similarities between the original and host cultures present fewer difficulties with socio-cultural adaptation (Ward, et al, 2001).

**Acculturative Stress**

According to Yeh and Inose (2003), language skills, social support satisfaction and social connectedness impact acculturative stress (difficulties faced in the pressure to adapt to a new environment). However, life stress and academic stressors can be mediated by social support (Misra et al., 2003; Poyrazli, et al, 2004). Sumer, Poyrazli, and Grahame (2008) discussed the connection between anxiety and stress and noted that acculturative stress can lead to anxiety and depression. They found that international students with strong social support and social network satisfaction tended to adjust better and have lower levels of depression and acculturative stress (Sumer et al., 2008). Students with greater acculturation levels (comfortable and familiar with the host culture/people and confident in their language skills) tend to have less acculturative stress (Jung et al., 2007).

Smith and Khawaja (2011) identified the following as common acculturative stressors faced by international students: language barriers (affecting both academic and social contexts), educational stressors (getting used to a new educational system/culture), sociocultural stressors
having to form new support networks after leaving family and friends behind in their home countries), discrimination (ranging from verbal insults to job discrimination to physical attacks and experienced by some cultural groups more than others) and practical stressors (such as transportation, accommodation, higher tuition costs and financial difficulties).

Essentially, acculturation (cross-cultural adaptation or adjustment) can either be a positive experience (resulting in a successful personal developmental process) or a negative experience (resulting in maladaptive behaviors and mental health issues) with persons falling into various ends of the coping spectrum (Anderson, 1994). According to Ward, Bochner and Furnham (2001, preface), “when things go wrong due to culture clashes, the price in both human and economic terms can be quite high”. These dynamics lead many universities to make counselling services available to help students struggling with cultural adjustment. Acculturation is an inevitable factor that international students must grapple with, but it is just one aspect of international student transition and the adjustment process that they experience.

**International Student Adjustment**

Adjustment can be defined as the congruence between persons (students) and their environment, both academic and otherwise (Anderson, 1994; Ramsay et al., 1999). Persons navigate and overcome various negative emotions and learn to utilize skills and knowledge to cope with the adjustment process (Ramsay et al., 1999). Anderson (1994) further explains that persons undergoing an adjustment process will encounter several obstacles which must essentially be assessed (on a cognitive, affective and behavioral level) to determine what the response will be. This assessment and reaction interplay is key to adjustment and learning. Essentially, adjustment involves managing both individual and situational stress (Zhou et al., 2008).
In discussing international student adjustment and transition, it is prudent to mention Schlossberg’s theory of transition and to provide a definition of transition. She posited that the transition process is ongoing and involves an individual determining the type of transition, how much it will impact their life (specifically their roles, relationships, routines and assumptions) and how to cope with it (Schlossberg, 2005). Transition types can be categorized into anticipated, unanticipated or non-event (Schlossberg, 2005). In determining their coping plan, persons are impacted by four key factors (known as the 4 S’s). Schlossberg (2005) identified these as:

- Situation (taking into account the trigger, timing, level of control, role impact, duration, other stressors, previous experience with this type of transition and perception of the transition);
- Self (an individual’s personal characteristics such as socioeconomic status, gender, age, ethnicity, culture as well as psychological resources such as self-efficacy, values, spirituality and resilience);
- Support (including social support from intimate relationships, family, friends, and their academic institution); and
- Strategies (including seeking information, taking direct action and restricting action).

Schlossberg’s theory illuminates the fact that persons experience and perceive transitions differently based on personal skills and mind-set as well as support strategies and resources. This may account for the variance in adjustment levels among international students (Wang, 2009) and shows that while there are some common challenges, personal coping and perspectives are significant factors worthy of being explored.
While college students in general tend to experience transition issues such as academic challenges, financial difficulties, health challenges, interpersonal conflicts, loneliness and adjusting to personal autonomy (Baker & Siryk, 1986; Hoffman, 1984), international students experience additional challenges such as language/communication difficulties, financial stress, immigration difficulties, homesickness, transitioning to a new educational system and cultural adjustment/shock (Boyer & Sedlacek, 1988; Church, 1982; Jung, Hecht & Wadsworth, 2007; Leong, 1984; Sherry, Thomas & Chui, 2010; Sumer, Poyrazli & Grahame, 2008). Even before international students arrive, during the pre-admission stage, they express concerns regarding finances, distance from family and friends, visa issues, language barriers, safety and cultural adjustment as they and their parents, explore the decision to attend college in the US (Ruffalo Noel-Levitz, 2015).

Hechanova-Alampay et al., (2002) indicated that international students generally have less social support than domestic students and while research indicates that friendships with domestic students help international students with adjustment, it also shows that many internationals tend to favor friendships with co-nationals or other international students (Rajapaksa & Dundes, 2002). In one study, students indicated that in addition to support from the Office of International Students and Scholars, other factors that helped with their adjustment included interactions with faculty, friends, roommates and involvement in student organizations (Abe, Talbot & Gellhoed, 1998). The most significant finding from this study was that peer programs (such as pairing new international students with returning domestic or international students) positively affect international student (social) adjustment (Abe et al., 1998).
International Student vs. Domestic Student Adjustment

A variety of studies have compared international and domestic students in terms of adjustment and engagement. Kaczmarek et al., (1995) conducted a study of international students and domestic students using the Student Adaptation to College Questionnaire and found a statistically significant difference on the social and institutional attachment subscale as well as on the goal commitment subscale between international vs. domestic students. Their study inferred that cultural differences, reluctance to seek help and lack of engagement in campus activities/life were major differences for international students in the process of adjusting to college.

In contrast, Zhao, Kuh and Carini (2005) found that compared to American (domestic) students, international first-year students focused more on academics (number of hours spent on class prep, number of assignments completed, integration of learning), were engaged in more student-faculty interactions (discussed grades, assignments, career plans or other non-coursework related activities), and generally reported greater progress in social and personal development (understanding self, developing values, team-work, self-directed learning, analytical thinking) as well as overall educational achievements (critical thinking, writing and speaking effectively).

Other studies by Boyer and Sedlacek (1988), Pedersen (1991) and Surdam and Collins (1984) concluded that international students generally experience more adjustment difficulties compared to domestic students. More specifically, international students experience more challenges in academic and social adjustment when compared to domestic students (Hechanova-Alampay et al., 2002; Jacob & Greggo, 2001; Lewthwaite, 1996; Rajapaksa & Dundes, 2002; Ramsay et al., 1999). Factors affecting international student adjustment include language
difficulties, social adjustment issues, homesickness and loneliness with the unique elements of comparatively higher levels of stress and anxiety and more effort to overcome adjustment challenges (Andrade, 2006; Sumer, Poyrazli & Grahame, 2008).

**International Student Psychological Adjustment Issues and Use of Support Services**

Brown (2008) found that international students are at greater risk for mental health problems because of the impact of relocation stress. Cheng, Myles & Curtis (2004), Haydon (2003), Trice (2003) and Zhai (2002) identified lack of English language proficiency as an adjustment factor that can lead to social isolation of international students, as well as create significant challenges in academic success and interaction with faculty. Chapedelaine and Alexitch (2004) indicated that cultural differences and navigating host culture norms and rules can also have an isolating effect on international students.

In Abe, et al.’s study (1998), international students reported not using resources offered by career services, the counseling center and the student employment office. Reluctance to seek help or utilize counseling and other university support services (Arthur, 1997; Mori, 2000; Poyrazli & Grahame, 2007; Smith & Khawaja, 2011) is often influenced by cultural norms of the international student’s home country and can be a barrier to international student success. International students often rely on other international peers and family for help and support when facing challenges (Ang & Liamputtong, 2008; Zhai, 2002). McLachlan and Justice’s (2009) study indicated that international students experienced a significant amount of adjustment distress (including academic and social distress) and acculturative challenges in their first 6-12 months of moving and beginning studies in the United States. This study is particularly significant in identifying a specific time-period (the first year) during which international students may need the most help and support to successfully overcome adjustment issues.
There are differing views between faculty and international students regarding international student adjustment issues as it relates to language barriers, academic challenges, learning styles, classroom participation and faculty-student interactions (Andrade, 2006). Walker’s (2001) study showed that student affairs professionals perceived international students as well adjusted with no major differences in adjustment concerns as compared to domestic students. However, many other studies contradict these findings.

There are varying findings in the literature regarding the effect of English language skills on international student adjustment and success. Robertson et al.’s (2000) study indicated that language barriers, anxiety and low confidence levels impact international students’ classroom participation and their gaining/seeking clarity on assignments. Similarly, Cheng et al. (2004) found that language barriers contribute to social isolation, impact academic performance and impact effective access to and use of support services. One measure of English proficiency used by higher education institutions is the Test of English as a Foreign Language (TOEFL). Many institutions require this test of international students as part of the admissions process. Senyshyn et al.’s (2000) study showed that students with higher TOEFL (Test of English as a Foreign Language) scores had fewer challenges with adjustment and had higher satisfaction levels than students with lower scores. There are contrasting results from two other studies regarding international student TOEFL scores. Undergraduate international students had similarly successful GPAs compared to domestic Native English Speaking students and the TOEFL score did not significantly impact academic performance as compared to domestic students (Berman & Cheng, 2010). However, according to Stoynoff (1997) and Johnson (1988) TOEFL scores moderately impacted academic achievement (including GPA and credits completed) and affected international student success in heavy reading and writing courses.
Some international students experience severe emotional distress due to relocation and separation from home, culture and family. Researchers define this as “foreign student syndrome” (a major occurrence of anxiety related issues) and “uprooting disorder” (symptoms include problems related to alienation, depression, nostalgia and feelings of helplessness) (Cheng et al., 2004). In Rajapaksa and Dundes’ (2002) adjustment study comparing 182 international students from 12 higher education institutions with 100 domestic students from 1 university, approximately one-third reported feeling disconnected, lonely and homesick often (with female internationals more likely to feel homesick and lonely compared to male internationals). Length of time spent in the United States and country of origin did not predict adjustment, but international students’ perception of social network/support was correlated with loneliness and homesickness (Rajapaksa & Dundes, 2002). While Rajapaksa and Dundes (2002) addressed the issue of a smaller sample size of domestic students and a shorter survey for that sample in their limitations, the sample size of 182 international students across 12 institutions in 2 East coast states provides some fairly generalizable data regarding international student adjustment.

Similarly, Andrade (2006) found that international student adjustment is impacted by friendships with other international students and domestic/host country students, gender, country of origin and year in school. Pressure to perform well (to honor family expectations, family financial sacrifices, personal integrity and/or national/home country expectations) is another source of stress for international students and this focus can lessen social interactions and seeking/utilizing support services (Cheng et al., 2004; Andrade, 2006). The preceding discussion outlines a variety of international student adjustment issues. While these issues are numerous and have varying effects on international students, there are a number of factors and
interventions discussed in the literature to assist in the adjustment process and that ultimately contribute to international student success.

Factors and Interventions That Assist International Students’ Adjustment Process

Studies show that in general, international student adjustment is gradual and varies from year to year during their program of study with the first year having the highest levels of adjustment problems (Lee & Wesche, 2000; Schutz & Richards, 2003; Senyshyn et al., 2000). Peer support programs can assist international students to navigate cultural and environmental issues and positively impacts social adjustment, but not academic adjustment or attachment to the university (Abe et al., 1998). Factors that help to mitigate international student adjustment issues and language/English competency barriers include targeted orientation programming and interaction with co-nationals (Poyrazli & Grahame, 2007). Students with higher self-confidence/efficacy tend to have an easier time with adjustment and less stress (Hechanova-Alampay et al., 2002).

In addition to challenges with the initial transition, international students also face adjustment issues in academic life, social life and psychological well-being. According to Poyrazli and Grahame (2007), adjusting to academic life (including academic culture adjustment and the impact of language proficiency on academic performance) is helped by interaction with advisors and faculty, cultural sensitivity from faculty and financial scholarships/support. While faculty and institutional financial support can greatly assist in academic adjustment, other support mechanisms assist in social and psychological adjustment. Adjusting to social life (including significant negative impact of loss of social support from their home networks and prejudice/discrimination) is helped by interactions with domestic students and participation in extracurricular activities while coping with psychological experiences (including homesickness...
and isolation) is helped by social support and group activities with domestic students (Poyrazli & Grahame, 2007).

Poyrazli and Grahame’s (2007) study showed that international students had adjustment problems related to finding accommodation, health care, transportation, social interaction, academic experiences, immigration documentation/process for campus jobs and discrimination. They suggested that the institution is integral in finding resources and implementing services/programming needed to support international student adjustment/success.

Zhai (2002) found that language and communication problems, cultural difference and academic demands provided the greatest challenges to international students. Zhai’s (2002) solutions to address these issues included providing an orientation that emphasizes academic demands/expectations, improved outreach regarding counseling services, better language/cultural support within English as a Second Language programs, providing programming that allows for social interaction with domestic students and peer mentors (fellow international students who have been in the United States for a while).

The literature is clear about the unique challenges that international students face as they pursue their academic studies. These challenges can be overwhelming for some, especially within their first year of studies/transition, but some utilize personal skills and support resources/networks to try to overcome these challenges. The ideal objective would be for international students to experience a positive adjustment process that will support student success (including the completion of academic goals) and overall personal growth and development through engagement in campus life.
International Student Persistence, Retention and Success

There is a vast amount of literature on the topic of student success within higher education. Kuh et al (2010) suggested that colleges and universities must find ways to help the myriad of diverse students enrolled achieve their academic goals and they identified persistence and degree completion rates as key factors by which institutions measure student success. Inherent in the student success model is also the matter of student development and student satisfaction with their college experience. These tenets are characterized by student engagement in campus life/activities, interaction with faculty, active learning with prompt feedback from professors, respect for diverse opinions and learning styles, high performance expectations and good time management (Chickering & Gamson, 1987). A campus environment that appears to be supportive, inclusive and relatively easy to navigate also complements student learning and enhances success (Kuh et al., 2010).

Inherent in the focus on student success is the ability of colleges to retain students. Astin (1975) maintained that from a cost perspective, it is important to prioritize retention over recruitment. There are several college student retention models and theories. However, one of the most widely used models is Tinto’s (1975) which focuses on students’ social and academic integration into their institution as predictors of student retention. Tinto (2002) identified the four pillars of student retention as institutional commitment to retention (intentional allocation of resources and establishing high standards for students to achieve), a supportive environment (both academic and social), involvement (interaction with faculty, staff and their peers) and learning (students must be motivated to learn). Tinto (1975) indicated that in general, an effective approach to persistence of students within higher education institutions includes a variety of both academic and social interventions. Students can be high academic achievers but
drop out because of a lack of connection to the social environment (activities and support) at a university while some students may be socially connected but struggle academically (Tinto, 1975).

Seidman (2005) defined retention as achieving academic and personal goals regardless of number of terms in college and suggested a formula of early, intensive and continuous institutional intervention to advance retention of college students. He further explained that retention efforts involve a blend of students asking for help and institutions identifying students who need extra support, with the institution providing the necessary support. Tinto (1997) indicated that academic and social integration are most critical to persistence in 4-year institutions and the most critical period for departure is prior to the beginning of the second year of college. In his stages of student departure, Tinto as cited in Seidman (2005) suggested students move through 3 stages (non-sequentially) to become integrated into the institution. These stages include: separating from the previous community, transitioning between the past and present community and integrating into the college community, and may be achieved either simultaneously or partially by various students.

**International Student Success and Persistence**

While there are numerous publications about student success in general, according to Andrade (2006), not many research studies on persistence or success have focused on international students. Andrade (2006) noted that according to some National Collegiate Athletic Association statistics, there were similar graduation rates of international students as compared to that of the total student population. Research comparing domestic and international student academic and social transition revealed major differences in transition issues with
international students predominantly experiencing greater challenges (including greater levels of stress and anxiety) in adapting (Andrade, 2006).

Boyer and Sedlacek’s (1988) longitudinal study examined the non-cognitive predictors of academic success for international students and found that self-confidence and strong personal support were predictors of grades (and general adjustment to academic requirements and overall academic success) while involvement in community service and understanding racism predicted persistence. To complement the personal variables that affect grades and the adjustment to the environment that affects persistence, Boyer and Sedlacek (1988) suggest counseling or mentorship along with student programming and workshops on combating racism.

In Mamiseishvili’s (2012) study (which utilized national longitudinal data), degree goals (type of degree pursued), GPA (first-year GPA) and academic integration (study group participation and interaction with faculty and academic advisors) were all significant positive predictors of persistence for international students. Negative predictors of persistence were revealed as remedial English (participation/enrollment in remedial English classes) and social integration (participation in student organizations, intramural and fine arts activities) (Mamiseishvili, 2012). This study shows that the academic integration of international students is critical to their persistence and success (highlighting the importance of faculty interaction and academic advising) and indicates that lack of English language skills can be a deterrent to success. While there are a number of risk factors for international student persistence and success, the literature outlines various factors and interventions that can assist in supporting success and persistence for this special population.
Factors and Interventions That Assist in International Student Success and Persistence

Frost (1991) found that international students tend to prioritize academic and career goals but have challenges finding practical work experience and establishing clear career objectives. International students seem to have greater academic and career needs as compared to domestic students. They often seek out/need more help with finding jobs connected to their majors, developing job skills and career plans and developing effective study and writing skills to meet the demands of their new academic setting (Frost, 1991). Frost suggested that advisors use cultural sensitivity to explain the structure and academic norms at United States institutions, be aware if international students are adequately prepared for college, recommend English as a Second Language classes or tutoring resources, if needed, and propose internship and practicum opportunities to provide practical work experience.

Ozturgut’s (2013) study identified the following best practices at Master’s granting institutions to retain international students: social and cultural engagement/support, academic programming/support, health, financial and religious support and international student services. Ozturgut (2013) explained that in addition to an examination of why international students are valued at an institution, a personal approach that acknowledges culture must be taken to achieve international student retention. This approach emphasizes the need for cultural competence and willingness by administrators and staff to assist in providing academic and social support for international students on their campuses.

Abel (2002) suggested that international students can achieve academic success through improving English language proficiency, applying appropriate learning strategies, becoming familiar with classroom dynamics and various teaching styles, making use of study/tutoring resources and practicing good time management. Lacina (2002) identified the following as some
of the challenging factors international students face that may hinder success: language diversity (language discrimination, misinterpretation and accents), cultural differences (cultural norms and religion) and cross-cultural counseling issues (aversion to utilizing mental health services/resources). Strategies to help promote international student success and retention include establishing an international student center dedicated to addressing the transition needs of international students, providing social events, creating peer matching/mentor programs, providing conversational English classes/meetings and encouraging the formation of international student organizations (Lacina, 2002). Adewale (2015) identified language barriers and adjusting to the US education system as hindering international students’ academic integration, but found that support from family, friends and the institution and setting personal goals enhanced persistence.

In addressing the lack of research on international student adjustment and persistence, Andrade’s (2005) study examined the first-year experiences of international students at a higher education institution with low international student graduation rates. Results showed the value of involvement in campus life for persistence but also highlighted the need for programming to address language barriers/proficiency issues and to help international students create supportive social networks (Andrade, 2005).

Summary

The discussion throughout this chapter outlines the complexity of the international student transition experience taking into account the institutional drive to recruit and retain students for internationalization purposes and other benefits, as well as the diversity of challenges that face international students when they arrive and throughout their course of study.
The challenges include a range of cultural and psychological adjustment issues, but also comprise numerous academic, daily living and social adjustment factors that play a role in overall international student success. While institutional support and programming can benefit students and help to mitigate some of the adjustment challenges, personal skills and support can also be useful assets during the transition experience. A multi-faceted approach is needed to assist students with the wide variety of challenging factors which impact some students more adversely than others.

The findings from various studies provide insight into some of the most common challenges faced by international students and a few studies highlight some of the major factors impacting persistence. Retention and persistence theories provide a background to the general challenges that institutions face in minimizing student attrition and useful interventions. However, while general benchmarks and theories about student success are applicable, there are some unique aspects of international student transition experiences that must be addressed with specific programming and interventions to help this special population to be successful. This study examined the impact of international student transition issues on international student persistence and success from the students’ perspective. The next chapter provides details regarding the methodology of this study.
Chapter Three – Method

Introduction

This chapter provides a theoretical framework and details regarding the methodology for this study. The purpose of this study was to explore the transition experiences of undergraduate international students on a US campus in the context of student success and persistence. The focus of this study was to examine both student success and institutional support. It is important to note that the majority of international student transition studies mentioned in the preceding literature review are quantitative studies. While these studies have provided valuable insight into general adjustment and coping issues/patterns, only a small number of studies have been qualitative in nature. Qualitative studies allow for individual perspectives that give voice to personal experiences of international students to supplement and enhance the quantitative findings, and to provide a deeper understanding of the many facets of the international student transition experience. This study utilized a qualitative research method as a means to fulfill the gap in the research literature.

Rationale for the Qualitative Design

Qualitative research is used to learn more about a phenomenon and to understand people’s experiences from their perspective (Johnson & Christensen, 2010). According to Johnson and Christensen (2010) qualitative research is exploratory in nature, allows the researcher to construct knowledge theories and hypothesis based on data collected, allows and utilizes a wide focus to examine phenomenon, supports the researchers’ view that human
behavior is not static, but frequently changes over time and provides unique perspectives and social constructs/norms from participants that may not necessarily be generalizable to others.

The focus of qualitative research is to preserve the integrity and natural flow of the behavior or phenomenon being studied by restricting/limiting researcher intervention while attempting to understand the participants’ views, realities, norms and thinking patterns (Creswell, 2007; Johnson & Christensen, 2010). Merriam (2009) and Patton (2002) suggested that qualitative research is best used to explore people’s experiences and make inquiries about how people make meaning of their experiences. Corbin and Strauss (2007) further posited that qualitative research targets the inner experience of participants to discover “how meaning is formed through and in culture” (p. 12).

According to Johnson and Christensen (2010) the strengths of qualitative research include producing data focused on the participant’s own meaning and individual information, in-depth study of a small number of cases, facilitating the understanding of people’s experiences of phenomena, producing rich descriptions of phenomena, indicating how participants interpret constructs, identifying contextual and setting factors that impact the phenomenon being studied, allowing for cross-case comparisons and presenting a vivid demonstration of a phenomenon (p. 430).

Patton (2002) suggested that qualitative research methods be used when a study is focused on or involves the following: evaluating individualized outcomes; participatory research and evaluation that values and incorporates collaboration; confirming research (enhancing quantitative analyses with in-depth detail); and capturing and communicating stories (p. 204).
The nature of this study’s research questions aligned well with many of the aforementioned reasons to use qualitative research. Creswell (2007) succinctly articulated a major reason qualitative methods fit this study well. He stated that qualitative research is best used for exploring issues and problems to go beyond previous research and findings in order to understand the issues on a deeper level. Creswell (2007), further explained that inherent in the process of qualitative research is the ability to empower participants to have their voices and experiences heard; valuing and recognizing the context and settings in which the participants are situated; and appreciating the uniqueness of the study participants. This study facilitated the exploration of the lived experience of international students at the sample institution and provided insight into their unique transition experiences, especially as it related to their persistence and success.

**Design Strategies**

There are several design strategies within the large domain of qualitative research. Patton (2002) outlined these design strategies as follows:

- naturalistic inquiry in which a phenomenon is studied in a natural way to see what emerges rather than predetermining the outcomes (a discovery focus),
- emergent design flexibility in which the researcher is flexible with adapting the study as new levels of understanding develop and additional dimensions of the study materialize, and
- purposeful sampling in which participants for the study are specifically selected because they are viewed as “information rich” sources regarding the phenomenon being studied.

(p. 40)
Yin (2014) corroborated Patton’s emergent design flexibility by indicating that case study researchers need to be flexible and open to possible changes that could range from minor to major, such as finding a new case to study.

This study utilized each of these design strategies. The naturalistic inquiry approach was used to study the phenomenon of international student transition and guided the discovery of the possible impact on student success and retention. Purposeful sampling was used to select participants so that there was a rich source of information for the study as experiences and perceptions were explored. Emergent design flexibility was adopted when any unanticipated patterns and new developments in the data collected dictated adaptation.

**Conceptual Framework/Perspectives Guiding the Study**

The conceptual frameworks that guided this study included phenomenology and case study. Patton (2002) indicated that at the core of phenomenology is determining the “meaning, structure and essence of the lived experience of this phenomenon for this person or group of people” (p. 104). A phenomenon can be an emotion, job, relationship, program, organization or culture (Patton, 2002). Creswell (2007) also confirmed that a phenomenological study details the meaning of the lived experience shared by several persons and focuses on understanding the commonalities of these experiences to develop a deeper meaning and/or to inform the development of practice or policy.

**Phenomenology**

A phenomenological approach looks at how people make sense of, perceive, recall, discuss, evaluate and describe a particular phenomenon and the only valid source of this information is persons who have actually/directly experienced or lived through this phenomenon (Johnson & Christensen, 2010; Patton, 2002). A core feature of phenomenological research
studies is the focus on understanding the phenomenon through the participant’s perspective, drawing from their personal meaning (Johnson & Christensen, 2010). Patton (2002) distinguished between a phenomenological study versus a phenomenological perspective or approach (in which the focus is on describing participants’ experiences and how they experience them).

Since the study focused on the potential impact of international student transition experiences on student success and retention, a phenomenological approach was appropriate in gaining insight into the lived experiences of international students. This approach specifically facilitated a focus on individual international student perceptions of their experiences including their coping skills/resources and other factors that may have influenced their persistence and success. The study looked at both the unique or “idiosyncratic” characteristics of international student transition within the context of success and persistence and the more common elements or “essence/invariant structure” of the experience among participants (Johnson & Christensen, 2010, p. 385).

Case Study

The other conceptual framework that guided the study was a case study approach in which the focus is to provide an in-depth description of a single or multiple cases in order to answer the research questions (Johnson & Christensen, 2010). Yin (2014) and Gall, Gall and Borg (2005) indicated that case studies are used to describe, explain or evaluate a phenomenon. Yin (2014) further explained that case studies (which can include single or multiple cases) involve multiple data sources which can be triangulated and the data collection is guided by theoretical perspectives. A key aspect of multi-case studies (in which the cases facilitate the
examination of the phenomenon) is identifying what concept or phenomenon ties the various cases together (Stake, 2006).

Patton (2002) indicated that case studies can either be people focused or structure focused and that units of analysis for case studies can include individuals, small groups and people who share a common experience or perspective. Merriam (2009) defined a qualitative case study as “an in-depth analysis of a bounded system” (p.40) or phenomenon such as “a program, an institution, a person, a process or a social unit” (p. x, preface) and further explains that the case study is defined by the unit of analysis. Similarly, Creswell (2007) described case study research as examination of a bounded system (one case) or multiple bounded systems (several cases) utilizing multiple data sources.

Creswell (2007) identified three types of case studies – intrinsic case studies (focused on understanding a single case), instrumental case studies (focused on learning more general information beyond the specific case) and collective case study (examining several cases within a study on a particular issue). Case studies can be exploratory, descriptive or explanatory and should be used to answer “how” or “why” research questions, if the researcher cannot control behavioral events and when studying a contemporary phenomenon (Yin, 2014). Tellis (1997) further explained that “what” research questions require an exploratory study and studies can have both exploratory and explanatory elements.

Creswell (2007) stated, “the study of multiple individuals, each defined as a case and considered a collective case study, is acceptable practice” (p.122). The case study design was appropriate for this study to examine the phenomenon of international student transition and to provide an in-depth look at individual cases. This study used a collective case study to compare the various international student transition experiences for contrasts and similarities. Stake
(2006) suggested that multiple-case research can involve studying commonalities and differences among the individual cases, but can also focus on the unique and complex aspects of each individual case. Yin (2014) recommended defining/bounding the case by identifying the unit of analysis (which in this study is international undergraduate students) separate from the context for the study. Yin (2014) further indicated that it is important to identify theoretical perspectives relevant to the study, which may include individual theories and group theories. This theoretical frame allows for analytic generalization (“a lesson learned, working hypothesis or other principle believed to be applicable to other situations”) of the findings (Yin, 2014, p. 68).

**Challenges and Limitations of The Conceptual Frameworks**

Both conceptual frameworks (phenomenology and case study) which guided this study have some limitations. Creswell (2007) suggested that challenges of phenomenology include identifying the overarching philosophical assumptions, careful selection of participants and adequate bracketing of the researcher’s personal experience to avoid bias. Johnson and Christensen (2010) noted that one limitation of collective case study design is that while breadth of analysis is achieved and allows for comparative information to be obtained, depth of analysis can be compromised due to limits of time and/or money. The researcher’s abilities and possible biases, and validity and generalizability factors are also limitations of case study research (Merriam, 2009).

**Philosophical Underpinnings of the Study/(Overarching) Philosophical Assumptions/Paradigms**

Creswell (2007) indicated that qualitative research studies (design and data collection) are guided by the researcher’s philosophical assumptions and/or paradigms. My philosophical assumption is ontological, which Creswell (2007) described as being concerned with the nature of reality and accepting that reality is subjective and varies among study participants. In
studying this phenomenon, I believed that the interpretation and personal reality shared by each of the study participants was valid (Merriam, 2009). My research study report included these various realities with some quotations from the individual participants interviewed (Creswell, 2007).

Another factor that influences qualitative research is the researcher’s philosophical paradigm. My philosophical paradigm is constructivism which Merriam (2009) described as being concerned with describing, understanding and interpreting. This constructivist view influenced my choice of interview format and questions, which was broad and fairly open to allow participants to construct their own meaning of the transition experience (Creswell, 2007).

Data Collection Methods

Patton (2002) stated that “we interview people to find out from them those things we cannot directly observe…..we cannot observe behaviors that took place at some previous point in time….we cannot observe feelings, thoughts and intentions….we have to ask people questions about those things” (pp. 340-341). The interview, according to Patton (2002), is predicated on the fact that the participants’ perspectives are meaningful, comprehensible and can be clearly communicated.

Creswell (2007) indicated that in-depth interviews (either single or multiple interviews) are the main data collection method when using a phenomenological approach. Yin (2014) discussed the importance of using multiple data sources for validity and indicates that the six primary sources for case study research are documentation (including reports), archival records (including student records), interviews, direct observations (including human actions), participant observation and physical artifacts. Similarly, Creswell (2007) identified four data sources for case studies: interviews, observations, documents and audiovisual materials. As
recommended by Yin (2014) and Creswell (2007), this study utilized multiple types of data collection including interviews, questionnaires, documentation and archival records. Using multiple sources of data helped to strengthen the construct validity of the study, specifically by providing a variety of sources from which to corroborate findings and facilitate data triangulation (Yin, 2014).

**Interviews**

There are three main types of qualitative interviews: unstructured/informal, semi-structured and highly structured/standardized (Merriam, 2009). Tellis (1997) indicated that open-ended interviews help to broaden the depth of gathering the data and facilitates additional sources of information. Frey and Fontana, as cited in Denzin and Lincoln (2000), recommended utilizing semi-structured interviews to gain the perspectives of both individuals and groups, with the researcher being somewhat directive if the purpose of the research is phenomenological in nature. Marshall and Rossman (2006) suggested that phenomenological interviewing facilitates concentration on the deep meanings of participant’s experiences. Seidman (2012) recommended a three-interview structure for phenomenological interviews (each sequentially focusing on life history, details of the experience and reflection on the meaning) and using 90-minute interviews with 3 days to a week in between each interview. However, he supports alterations to this three-interview format provided that participants can still “reconstruct and reflect upon their experience within the context of their lives” (Seidman, 2012, p. 25).

This study utilized semi-structured, one-on-one interviews to help participants reconstruct and reflect on aspects of their specific/individual transition experience especially as it related to the impact on their persistence and success (Seidman, 2006). Semi-structured interviews feature both structured and less structured flexible questions to get specific data from all the participants
(Merriam, 2009). The semi-structured interview is guided by a list of questions or a specific set of issues to be examined (Merriam, 2009). While the questions are open-ended, they are focused specifically on the research topic and range from general questions, to establish trust or rapport, to probing questions and clarification of theoretical connections (Galletta, 2013).

**Strengths and weaknesses.** Researchers have made several observations regarding the strengths and weaknesses of interviews as a data collection method. Yin (2014) indicated that while interviews provide targeted and insightful information, weaknesses of this data source include bias from poorly worded questions, bias in the responses, faulty memories and participant reflexivity (participants state what they believe the researcher wants to hear). Patton (2002) highlighted the comprehensive nature of the data, the ability to ask relevant questions and expand on information shared, and comparability of structured responses as some of the benefits of the main types of interviews. However he identified some of the weaknesses as challenges if some questions don’t arise organically during the course of the interview, crucial topics could be missed and limits to the range of responses in standardized interviews (Patton, 2002).

Interviewing facilitates immediate follow-up and clarification of information to help the researcher understand the participant’s perspective about a phenomenon; however, sometimes participants are uncomfortable sharing information and this may limit the scope of the information being explored (Marshall & Rossman, 2006).

The participants for this study were international students from various countries and cultural backgrounds who may not be native English speakers/for whom English may be a second language. Some researchers, such as Patton (2002) raised the observation that cross-cultural interviews can be complex and there is an increased possibility for misunderstandings to occur (particularly because of assumptions and nuances of meaning as well as language
differences). He also cautioned that interpreters and translators may insert their own summary and explanation of responses that are not completely true to the interviewee’s response and meaning (Patton, 2002).

For this proposed study, while I interviewed participants from various countries with various language backgrounds, I did not use a translator or interpreter. All the participants were required to have a certain level of English language proficiency in order to be admitted to the institution. The sample institution does not offer general conditional admissions to students who have not met the required GPA or test score requirements, (University XYZ International Admissions, 2015). English language proficiency is assessed via standardized international testing and enrollment is predicated on receiving a certain score on these tests (e.g. TOEFL, SAT, ACT), along with other Admissions requirements. All participants would have met a minimum TOEFL score threshold of 550 (paper-based) or 79 (internet-based) for admission to the sample institution (University XYZ International Admissions, 2015). The questionnaire items and interview questions reflected a Flesch-Kincaid readability index grade level of 8.4 and a Flesch Reading Ease level of 52.1. The researcher ensured that instrument questions were crafted to facilitate maximum understanding and to minimize ambiguity. Additionally, the instrument questions were pilot tested with a small group of international students (separate from the actual study participants) to help with assessing potential language or cultural challenges. Further guards against cross-cultural issues included member-checking with participants to ensure that meanings, nuances and interpretation of responses were accurate.

**Questionnaires**

Questionnaires are an effective means of collecting data from multiple participants (Patten, 1998). Fontana and Frey, as cited in Denzin and Lincoln (2000) indicated that
questionnaires can also be considered a type of interview. Questionnaires are used as a means of gathering information about attitudes, beliefs and characteristics of participants (Marshall & Rossman, 2006). Creswell (2012) suggested that questionnaires include personal or demographic items, opinion and attitude items, and a mixture of closed and open-ended items. Other recommendations include using clear language, avoiding overlapping answer options, ensuring questions are relevant to all participants and pilot testing the questionnaire (Creswell, 2012).

This study utilized a questionnaire consisting of mostly open-ended responses/questions. However, including a mixture of closed and open ended questions aided the analysis in connecting data to concepts and factors outlined in the literature (closed-ended) and allowed for thoroughly examining responses (open-ended) (Creswell, 2012). The questionnaire was distributed electronically via email.

**Strengths and weaknesses.** There are a number of benefits to using questionnaires. Dillman et al., (2009) suggested that questionnaires can be tailored to a variety of survey populations and topics, can be low-cost (especially web-based) and are a speedy way to collect data from a large number of participants. Other strengths of using questionnaires include (1) a good means to measure attitudes of and gather other information from participants, (2) a high perception of anonymity by participants, (3) close-ended items can be easily analyzed and (4) well-tested and well-designed questionnaires can have a fairly high measurement validity (Tashakkori & Teddlie, 2003).

Limitations of questionnaires include (1) a low response rate, (2) more objective data which reduces in-depth information and (3) inaccurate information provided by respondents based on what they think the researcher wants to hear (Patten, 1998). Marshall and Rossman
(2006) indicated major limitations of questionnaires are reliance on self-reporting and accuracy of participant information.

While Creswell (2012) indicated that web-based questionnaires facilitate the gathering of data in a short amount of time, challenges of this method include low-response rates, technological issues and security issues. Additionally, Creswell (2012) suggested that since questionnaire responses are removed from the participant’s natural settings/contexts, they may not be as detailed.

**Documents and Archival Records**

Documents such as records, artifacts and archives can be significant information sources (Creswell, 2012; Patton, 2002). Merriam (2009) identified the four main types of documents in qualitative research as public records, personal documents, popular culture documents and visual documents that are not usually created for/by the research study. Merriam (2009) described documents as providing a paper-trail that serves as an additional information source to unearth what cannot be observed and detail what has occurred prior to the study/evaluation. Yin (2014) outlined a number of types of documents used in case study research including letters, emails, minutes of meetings, written reports, progress reports, formal studies or evaluations related to the case, newspaper clippings and news articles. Archival records include public files such as census data, service records, budget or personnel records, maps, charts and pre-existing survey data regarding the study participants (Yin, 2014).

This study utilized university documents providing data on international student enrollment rates, list-serve archives and welcome letters from ISO. It was hoped that this research could have utilized exit survey data of international undergraduate students who did not persist and exit survey data of international undergraduate students who graduated (this survey is
required as a part of the graduation application process at the university), however this data was not available or accessible, respectively.

**Strengths and weaknesses.** Patton (2002) indicated that the main weakness of documents is that they could be incomplete or not accurate. Merriam (2009) added that documents may be inauthentic, are not necessarily suited for research and may not contain information that is typical of the sample. However, both Merriam (2009) and Yin (2014) concluded that despite the limitations, documents are still a worthy data source. Strengths of document data include stability, accessibility, providing information that cannot be obtained from interviews and observations, providing background information and understanding, illuminating patterns of change and it is not altered or affected by the presence of the researcher (Merriam, 2009). Yin (2014) also indicated that documents can help to support findings from other sources. Strengths and weaknesses of archival records are similar to those of documents but also include the preciseness of the data and the fact that they are often inaccessible for privacy reasons (Yin, 2014).

While each data collection method has limitations, Patton (2002) suggested that mixing data sources and using a triangulated approach enhances the strength of the data collection and analysis. Similarly, Yin (2014) extolled the importance of using multiple sources of data and its role in the triangulation process.

**Researcher’s Role**

In qualitative research, the researcher is the main instrument of collecting and analyzing the data (Creswell, 2007; Merriam, 2009; Patton, 2002). Patton (2002) further suggested that the researcher’s commitment is “to understand the world as it unfolds, be true to complexities and multiple perspectives as they emerge and be balanced in reporting both confirmatory and
disconfirming evidence with regard to any conclusions offered” (p. 51). Stake (2010) explained that the qualitative researcher usually has a subjective role and makes interpretations based on personal experience. As the sole researcher in this study, I assumed the roles of sole data collector (utilizing interviews and documents) and sole analyst of the comprehensive data.

**Study Sample and Site**

Researchers provide a number of guidelines regarding qualitative study sample size, choice of sample and research sites. This section explores these recommendations while describing this study’s research design.

**Sample**

According to Patton (2002), “there are no rules for sample size in qualitative inquiry” (p. 244) and qualitative research often utilizes very small samples in order to provide an in-depth understanding of the phenomenon. To facilitate this in-depth understanding, purposeful criterion sampling is recommended to ensure that the participants will be a potent, substantial source from which to learn the most about the issues central to the study and to provide answers to the research questions (Merriam, 2009; Patton, 2002). Patton (2002) further explained that the sample size is determined by the purpose of the study, what information the researcher is seeking, usefulness, credibility and what is manageable in the scope of the researcher’s time and resources. Merriam (2009) concurred that the ultimate goal is to select an ample sample size that will answer the research questions and fit the purpose statement. More specifically, Creswell (2014) indicated that phenomenological studies often involve in-depth interviews with up to 10 persons and he also cites Dukes (1984) as recommending “studying 3 to 10 subjects” for phenomenological studies (p. 126). Stake’s (2006) recommendation for effective multi-case
studies was utilizing between 4 and 10 cases, but he indicated that for various reasons, some studies have “fewer than 4 or more than 15 cases” (p.22).

Stake (2006) recommended using a purposive sample of cases to “build in variety and create opportunities for intensive study” (p. 24). Merriam (2009) indicated there are various types of purposeful sampling: typical (representing the average occurrence of the phenomenon), unique (representing uncommon occurrences of the phenomenon), maximum variation (broadest variations of the phenomenon), convenience (based on availability and resources), snowball (participants refer others to take part in the study) and theoretical (ongoing sample selection to generate theory) sampling. Merriam (2009) pointed out that in case studies, sampling occurs within the case either before data is collected or during the data collection process (theoretical sampling), essentially resulting in sampling on two levels.

Both maximum variation and ongoing sampling were used in this study to present a variety of international student transition experiences. Maximum variation sampling facilitated the gathering of a fairly wide range of cases in order to see the variations and if there were any common patterns (Patton, 2002). Variations sought included gender, country of origin, age, program of study, college, native and non-native English speakers and GPA. Ongoing, purposive sampling (Merriam, 2009) occurred as participants/cases interviewed were selected from among the participants who complete the questionnaires. As ongoing sampling proceeded for the collective case study, confirming and disconfirming sampling was also applied to explore and follow-up on findings arising from the questionnaire data (Creswell, 2012).

Each participant’s demographic information was reviewed to ensure that they fit the research study’s sample criteria. Participants volunteered to be involved in this study, which is often the case in educational research (Gall, Gall & Borg, 2005). Volunteer samples are
appropriate when the study is focused on describing a small participant group rather than generalizing findings (Creswell, 2012). Limitations of using a volunteer sample include non-participation or non-consent, self-selection and possible resultant sampling bias (Wallin, 1949).

The first level sample for this proposed study was drawn from approximately 110 international undergraduate final-year students at a public research university, to whom questionnaires were issued via email. The sample size was identified through a data report from the university’s International Services office based on inclusion and exclusion study criteria. The International Services office at the sample institution provided the email addresses and issued the invitation email with the questionnaire link to the selected sample. With a confidence interval from .40 to .60, approximately 44 questionnaires would need to be returned, however, the expected return rate was approximately 16 questionnaires, representing a rate of approximately 20% - the average return rate for online survey response rates if no incentives are provided (Nulty, 2008).

The second level sample for the study was 10 participants (9 completed interviews) selected from the first level sample interviewed as part of the collective case study. The number of participants for the interview sample (4 to 10) was selected to ensure variability in responses and the final total interviewed will depend on data saturation. This was in keeping with the emergent design flexibility recommended by Yin (2012) and Patton (2002). The criteria for this purposeful sample (level 1 for the questionnaires) were as follows:

- International undergraduate students (much of persistence theory, retention and student success literature is specifically related to the undergraduate student population)
- Enrolled in their final year of study (to show persistence)
• Must have enrolled at the institution from the first year of study and cannot be transfer international students or exchange students (to stay true to the unique resources, environment and academic requirements/standards of the case institution – the common context of studying at this particular institution over a similar period of time)

• No restriction on gender (for maximum variation)

• No restriction on country of origin (for maximum variation)

• No restriction on age (for maximum variation)

The criteria for the interview sample for the collective case study (level 2), pending what unfolds in the questionnaire data, were as follows:

• Students with a high GPA (above 3.5)

• Students from various regions/continents.

• Extreme case and disconfirming samples as well as homogeneous samples (Creswell, 2012) or confirmatory cases (Patton, 2002) regarding participants’ persistence/success.

**Study Site**

Creswell (2012) indicated that qualitative studies often involve very small samples to preserve the ability to accomplish in-depth exploration and analysis. He indicated that this ability can be compromised by adding additional participants or sites to the study. While the unit of collection will be international students and not the institution, it is important to situate the study and provide a context of the environment in which the participants experienced their transition. This study involved one study site. All the participants in the study were undergraduate international students enrolled at a large southern, 4-year, public metropolitan
university in the USA. This university was selected because of its robust and growing international student population.

The sample university has 14 colleges and offers bachelors, masters, education specialists, research doctoral and professional doctoral degrees. Currently, the university enrolls between 35,000-45,000 students, with over 30,000 undergraduate students including over 1,200 international degree-seeking, undergraduate students (University XYZ Fact Book, 2014). There are over 130 countries represented by international students at the university, with the greatest number of undergraduate international students coming from China, Venezuela, India, Jamaica, Trinidad & Tobago, Saudi Arabia, Peru, Oman, Brazil and the United Kingdom (University XYZ International Services, 2014). The university has a full-time freshman retention rate of over 85% with a 6-year graduation rate of over 60% (University XYZ Fact Book, 2014).

Instrumentation

The data collection instruments for this study included the following: interviews, questionnaires and secondary data. Open-ended questionnaires were issued to approximately 110 participants (primarily to obtain demographic information as well as general information about their transition experiences). Interviews were conducted with 9 participants who completed the questionnaires. In addition, an interview with an administrator of the International Services office at the study site provided background information regarding programming, services and support provided to international students. Several changes have occurred in the International Services office’s programming in recent years. Current international students receive a different level of support than those who enrolled at the sample university approximately 4 years ago. This interview provided an important context of the university and the International Services
office when the participants arrived, especially as it related to institutional support for international students.

Secondary data was utilized as another data source, based on availability. This secondary data included documents from the university such as reports on enrollment and persistence. In addition, archival documents regarding international student transition/orientation materials, services and programming were examined.

**Development of Instruments**

Interview and questionnaire questions were generated from the literature regarding common international student transition issues, specific issues related to both academic and social adjustment, and factors/institutional programming and support that have assisted in the transition process. The questions were also guided by the general research questions in terms of scope, topic and detail. The interview and questionnaire questions were piloted for clarity with a small group of international first-year undergraduate students who were not part of the study. Table 1 provides a summary of the issues, factors and interventions that guided the interview and questionnaire items, and also guided the interview probes/prompts.

Table 1

*Rationale for Questionnaire and Interview Instrument Development*

<table>
<thead>
<tr>
<th>Impacting Factor, Challenge, Intervention</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>English proficiency</td>
<td>Wang (2009)</td>
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<tr>
<td>Personality variables (eg. interpersonal skills, flexibility)</td>
<td>Boyer &amp; Sedlacek (1988); Wang (2009)</td>
</tr>
<tr>
<td>GPA and number of credit hours</td>
<td>Fischer (2014); Mamiseishvili (2012)</td>
</tr>
<tr>
<td>Working on campus</td>
<td>Fischer (2014)</td>
</tr>
<tr>
<td>Academic and campus involvement</td>
<td>Andrade (2005); Boyer &amp; Sedlacek (1988); Mamiseishvili (2012)</td>
</tr>
<tr>
<td>Impacting Factor, Challenge, Intervention</td>
<td>Source</td>
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<tr>
<td>----------------------------------------</td>
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<tr>
<td>Adjustment Issue/Challenge (Research Questions 1, 2 &amp; 3)</td>
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<tr>
<td>Finances</td>
<td>Boyer &amp; Sedlacek (1988); Foster (2011); Johnson (2008); Redden (2014); Smith &amp; Khawaja (2011)</td>
</tr>
<tr>
<td>Daily living issues (eg. housing, food, safety, transportation)</td>
<td>Foster (2011); Johnson (2008); Poyrazli &amp; Grahame (2007); Redden (2014); Smith &amp; Demjanenko (2011); Smith &amp; Khawaja (2011)</td>
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<tr>
<td>Misinformation; misconceptions between student expectations and academic programming</td>
<td>Foster (2011); Johnson (2008); Smith &amp; Demjanenko (2011)</td>
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<tr>
<td>Social issues (eg. relationships, support)</td>
<td>Hechanova-Alampay et al (2002); Rajapaksa &amp; Dundes (2002); Ramsay et al. (1999); Smith &amp; Demjanenko (2011); Smith &amp; Khawaja (2011); Yeh &amp; Inose (2003)</td>
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<tr>
<td>Lack of support from international services office</td>
<td>Smith &amp; Demjanenko (2011)</td>
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<tr>
<td>Academic issues</td>
<td>Andrade (2005); Cheng et al (2004); Hechanova-Alampay et al (2002); Rajapaksa &amp; Dundes (2002); Ramsay et al. (1999); Smith &amp; Khawaja (2011); Zhai (2002)</td>
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<tr>
<td>Advising issues</td>
<td>Frost (1991); Smith &amp; Demjanenko (2011)</td>
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<tr>
<td>Cultural adjustment issues</td>
<td>Andrade (2005); Chapedelaine &amp; Alexitch (2004); Johnson (2008); McLachlan &amp; Justice (2009); Zhai (2002)</td>
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<tr>
<td>Mental health issues (eg. anxiety, depression, isolation, homesickness, discrimination, not seeking help)</td>
<td>Andrade (2005); Andrade (2006); Arthur (1997); Cheng et al (2004); Boyer &amp; Sedlacek (1988); Brown (2008); Kaczmarek et al (1995); Poyrazli &amp; Grahame (2007); Rajapaksa &amp; Dudes (2002); Smith &amp; Khawaja (2011); Sumer et al. (2008)</td>
</tr>
<tr>
<td>Personal coping skills</td>
<td>Hechanova-Alampay et al. (2002)</td>
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<tr>
<td>Not utilizing campus academic resources (eg. career services, student employment office)</td>
<td>Abe et al (1998); Andrade (2006); Cheng et al (2004)</td>
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<tr>
<td>Interventions to Assist with Adjustment (Research Question 4)</td>
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<td>Orientation</td>
<td>Poyrazli &amp; Grahame (2007); Zhai (2002)</td>
</tr>
<tr>
<td>Remedial English/ESL classes/conversational English classes</td>
<td>Abel (2002); Frost (1991); Lacina (2002); Pope (2012); Zhai (2002)</td>
</tr>
<tr>
<td>Mental health services</td>
<td>Pope (2012); Zhai (2002)</td>
</tr>
<tr>
<td>Academic advising and support (including tutoring)</td>
<td>Abel (2002); Frost (1991); Ozturgut (2013); Pope (2012)</td>
</tr>
<tr>
<td>Interaction with faculty</td>
<td>Andrade (2006); Poyrazli &amp; Grahame (2007); Zhao et al. (2005)</td>
</tr>
</tbody>
</table>
Table 1 (Continued)

<table>
<thead>
<tr>
<th>Impacting Factor, Challenge, Intervention</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer support program</td>
<td>Abe et al. (1998); Boyer &amp; Sadlececk (1988); Lacina (2002); Zhai (2002)</td>
</tr>
<tr>
<td>General increased support services</td>
<td>Pope (2012); Poyrazli &amp; Grahame (2007); Wood &amp; Kea (2000); Fusch (2011)</td>
</tr>
<tr>
<td>Acculturation classes</td>
<td>Abe et al (1998); Lacina (2002); Ozturgut (2013); Wood &amp; Kea (2000)</td>
</tr>
<tr>
<td>International student services (eg. immigration &amp; student visa advising)</td>
<td>Abe et al (1998); Lacina (2002); Ozturgut (2013); Poyrazli &amp; Grahame (2007); Sumer et al (2008); Zhai (2002)</td>
</tr>
<tr>
<td>Social support and programming</td>
<td>Abe et al (1998); Andrade (2006); Lacina (2002); Misra et al. (2003); Oztugut (2013); Poyrazli et al (2004); Poyrazli &amp; Grahame (2007); Sumer et al (2008); Zhai (2002)</td>
</tr>
</tbody>
</table>

Table 2 provides a summary of the interview questions and questionnaire items as related to the research questions.

Table 2

*Aligning Research Questions with Data Collection Questions and Methods*

<table>
<thead>
<tr>
<th>Interview Questions</th>
<th>Questionnaire Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. When did you begin studies at this university?</td>
<td>21. If you wish to participate in the interview phase of this study, please provide your name and contact information (email address, phone number).</td>
</tr>
<tr>
<td>13. When will you graduate?</td>
<td>22. Thanks so much for taking the time to complete this survey! Please provide a valid campus email address in order to receive your $5 Starbucks gift card. (The gift card will be sent to you via email).</td>
</tr>
<tr>
<td>14. What is your major?</td>
<td></td>
</tr>
<tr>
<td>15. What is your college?</td>
<td>17. Is English your first language?</td>
</tr>
<tr>
<td>16. What is your current GPA?</td>
<td>18. What is your age?</td>
</tr>
<tr>
<td>19. What is your gender?</td>
<td>19. What is your country of origin?</td>
</tr>
<tr>
<td>20. What is your country of origin?</td>
<td>20. If you wish to participate in the interview phase of this study, please provide your name and contact information (email address, phone number).</td>
</tr>
<tr>
<td>21. If you wish to participate in the interview phase of this study, please provide your name and contact information (email address, phone number).</td>
<td>22. Thanks so much for taking the time to complete this survey! Please provide a valid campus email address in order to receive your $5 Starbucks gift card. (The gift card will be sent to you via email).</td>
</tr>
<tr>
<td>Research Question</td>
<td>Interview Questions</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1.</td>
<td><strong>What specific academic challenges do successful international undergraduate students at a public research university in the USA perceive as jeopardizing their success and persistence?</strong></td>
</tr>
<tr>
<td></td>
<td>2a.</td>
</tr>
<tr>
<td></td>
<td>2b.</td>
</tr>
<tr>
<td></td>
<td>3.</td>
</tr>
<tr>
<td>2.</td>
<td><strong>What specific social, cultural and daily living challenges do successful international undergraduate students at a public research university in the USA perceive as jeopardizing their success and persistence?</strong></td>
</tr>
<tr>
<td></td>
<td>8a.</td>
</tr>
<tr>
<td></td>
<td>8b.</td>
</tr>
<tr>
<td></td>
<td>9a.</td>
</tr>
<tr>
<td></td>
<td>9b.</td>
</tr>
<tr>
<td></td>
<td>10.</td>
</tr>
<tr>
<td>3.</td>
<td><strong>How do successful international undergraduate students at a public research university in the USA respond to the academic and other challenges that they perceive as jeopardizing their success and persistence?</strong></td>
</tr>
<tr>
<td></td>
<td>4.</td>
</tr>
<tr>
<td></td>
<td>5.</td>
</tr>
<tr>
<td></td>
<td>8.</td>
</tr>
</tbody>
</table>
Table 2 (Continued)

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Interview Questions</th>
<th>Questionnaire Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. What institutional, social and other support systems do successful international undergraduate students at a public research university in the USA perceive as contributing to their success and persistence and how do they use those support systems?</td>
<td>6a. Can you describe any of the university's academic programs which you used as an undergraduate student to help with your academic progress?  6b. Are there any others that you used?  7a. Can you describe a social support system and how it contributed to your academic success?  7b. Are there any other forms of social support that you can describe which helped you academically?  13. Can you provide examples of university support services or programming (eg. social, financial, immigration) and how it contributed to your success and persistence as an undergraduate student?  14. Are there examples of any other kinds of support systems (eg. family) or personal coping skills which contributed to your success and persistence as an undergraduate student?  15. What do you feel has been the single most important factor that has contributed to your success and persistence and why? (e.g - academic, social/other university programming and services, personal or family)</td>
<td>1. What academic support programming, system or factors have contributed to your persistence and success?  3. What non-academic support programming, systems or factors contributed to your persistence and success?  4. What personal coping factors contributed to your persistence and success?  10. What advice would you give to other international students about how to overcome transition challenges and be successful in college?  11. What would you recommend to this university to help international students overcome transition challenges and be successful in college?</td>
</tr>
</tbody>
</table>

Managing and Recording Data

The literature is clear regarding the extreme care that must be taken to properly store data collected in order to protect and preserve the privacy and confidentiality of the participants. Interviews were audio tape-recorded. After transcriptions have been done and the study is
complete the audio tapes will be kept for 5 years (per Institutional Review Board regulations) and will then be erased. No identifying data was used in the reporting of data and care was taken to preserve anonymity by using pseudonyms. Questionnaires were also stored with code names and or numbers during the course of the study. All data and records were stored in a locked filing cabinet inside a locked room. Only the researcher had direct access to participants and knew any identifying details.

**Data Analysis Procedures**

In analyzing the data in a phenomenological study, it is recommended that the researcher catalogs any significant statements, ascertains the meaning of those statements and pinpoints the essence of the phenomenon while for case studies, it is recommended that the researcher uses holistic descriptions, performs cross-case analysis and identifies themes (Johnson & Christensen, 2010). Yin (2014) advised that analysis of case studies should be guided by both analytic strategies and analytic techniques. Following initial exploration of the data, analytic strategies such as utilizing theoretical propositions, processing data from the ground up, creating descriptions of the cases and looking at rival explanations should be applied (Yin, 2014). Yin (2014) also identified five analytic techniques for case study research: pattern matching (matching findings from the case study to either one predicted before data collection or to alternative predictions); explanation building (used mainly in explanatory cases to explain findings, but in exploratory cases is used to generate ideas for further study); time-series analysis (tracing changes and trends over time); logic models (comparing empirical and conceptual schemes) and cross-case synthesis (unique to multiple case studies, compiles findings/patterns across cases).
Patton (2002) indicated that another key process in qualitative data analysis is triangulation which provides another level of verification and helps with validity. There are four types of triangulation: methods triangulation (comparing the consistency of findings collected by various methods), triangulation of sources (comparing the consistency of various sources of data), analyst triangulation (have multiple analysts examine the data), theory/perspective triangulation (interpret the data via various theories or perspectives) (Patton, 2002).

Creswell (2012) outlined a six-step process for analyzing qualitative data which includes the following: preparing and organizing the data for analysis; preliminary examination of the data, line by line to establish codes; coding the data to develop themes and descriptions; creating narrative and visual reports of the data; interpreting meanings of the findings through personal reflection and comparisons to the literature related to the findings; and validating the findings. Coding data involves a three-step process of open coding (initial organization of the data), axial coding (interconnecting the categories) and selective coding (creating a proposition or hypothesis that connects the categories), (Merriam, 2009).

The audio-taped interviews were transcribed by a transcription company. Once the transcriptions were complete, I identified themes and patterns (through pattern matching) which were sorted into codes and main categories. Analysis included open, axial and selective coding (Merriam, 2009). A process of constant comparative analysis was used to help verify data. Constant comparative analysis involves collecting and categorizing data and comparing newly collected data with emerging concepts and categories (Creswell, 2012). To create validity, member-checking with participants was also utilized to ensure accuracy of meaning and interpretation of data. This process of member-checking included having the participants review the transcriptions to assess the accuracy and thoroughness of the report (Creswell, 2012).
Questionnaire data was downloaded from the online survey system and examined for overlapping themes and repetition of themes by participants (Creswell, 2012).

Triangulation of interview data was also implemented utilizing triangulation of sources and analyst triangulation (Patton, 2002). I corroborated findings from interviews, questionnaires, international student services documents on services and programming, as well as international student demographic and enrollment data from the university. To facilitate analyst triangulation, I had the participants review the transcriptions (member checking). In keeping with case study analysis methods, I also utilized individual case analysis (Patton, 2002) as well as cross-case synthesis to compare and contrast the cases within the study (Yin, 2014). Demographic data from the questionnaires was descriptively analyzed (mean, median, mode and frequencies) and a demographic profile of the participants was created (Creswell, 2012). I also utilized descriptive analysis for the documents reviewed.

Table 3 provides a summary of the research questions, data collection methods and data analysis used.
### Table 3

**Aligning Research Questions with Data Collection Items and Analysis**

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Collection Items</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> What specific academic challenges do successful international undergraduate students at a public research university in the USA perceive as jeopardizing their success and persistence?</td>
<td><em>Semi-Structured Interviews</em>&lt;br&gt;1. What academic challenges have you faced during your undergraduate studies?&lt;br&gt;2a. What were your greatest academic challenges?&lt;br&gt;2b. Did these challenges occur early during your studies or closer to the end of your studies?&lt;br&gt;3. How have you been impacted by these academic challenges?</td>
<td>Identify themes, constant comparative analysis, coding, triangulation, pattern-matching, cross-case analysis</td>
</tr>
<tr>
<td></td>
<td><em>Open-ended Questionnaires</em>&lt;br&gt;2. What personal academic coping strategies have contributed to your persistence and success?&lt;br&gt;5. What academic challenges have you dealt with/overcome?</td>
<td>Identify themes, constant comparative analysis, coding, triangulation</td>
</tr>
<tr>
<td><strong>2.</strong> What specific social, cultural and daily living challenges do successful international undergraduate students at a public research university in the USA perceive as jeopardizing their success and persistence?</td>
<td><em>Semi-Structured Interviews</em>&lt;br&gt;8a. Can you share an example of any social challenge which has created difficulties related to your studies?&lt;br&gt;8b. What other social challenges did you experience?&lt;br&gt;9a. Are there any cultural challenges that you can describe which you have encountered related to your experience as an undergraduate student?&lt;br&gt;9b. Are there any other cultural challenges?&lt;br&gt;10. Can you describe any daily living challenges which have created difficulties related to your academic studies?&lt;br&gt;11. Are there any other daily living challenges that you encountered?</td>
<td>Identify themes, constant comparative analysis, coding, triangulation, pattern-matching, cross-case analysis</td>
</tr>
<tr>
<td></td>
<td><em>Open-ended Questionnaires</em>&lt;br&gt;6. What social/cultural challenges have you faced?&lt;br&gt;7. What daily living challenges have you experienced?</td>
<td>Identify themes, constant comparative analysis, coding, triangulation</td>
</tr>
<tr>
<td><strong>3.</strong> How do successful international undergraduate students at a public research university in the USA respond to the academic and other challenges that they perceive as jeopardizing their success and persistence?</td>
<td><em>Semi-Structured Interviews</em>&lt;br&gt;4. What have you done when you have encountered academic problems or challenges as an undergraduate student?&lt;br&gt;5. Was there ever a time you felt like dropping out of or withdrawing from college? What were the circumstances and how did you deal with them?</td>
<td>Identify themes, constant comparative analysis, coding, triangulation, pattern-matching, cross-case analysis</td>
</tr>
<tr>
<td>Research Question</td>
<td>Data Collection Items</td>
<td>Data Analysis</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td><strong>3. (Continued)</strong></td>
<td>12. Regarding daily living issues, how have you dealt with challenges in that area?</td>
<td></td>
</tr>
<tr>
<td><strong>Open-ended Questionnaires</strong></td>
<td>8. Are there any factors that have interfered with your success in college or delayed your graduation plans?</td>
<td>Identify themes, constant comparative analysis, coding, triangulation</td>
</tr>
<tr>
<td></td>
<td>9. Did you ever consider not completing your studies (withdrawing/dropping out)? (Why or why not).</td>
<td></td>
</tr>
<tr>
<td><strong>4. What institutional, social and other support systems do successful international undergraduate students at a public research university in the USA perceive as contributing to their success and persistence and how do they use those support systems?</strong></td>
<td><strong>Semi-Structured Interviews</strong></td>
<td>Identify themes, constant comparative analysis, coding, triangulation, pattern- matching, cross-case analysis</td>
</tr>
<tr>
<td></td>
<td>6a. Can you describe any of the university’s academic programs which you used as an undergraduate student to help with your academic progress?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6b. Are there any others that you used?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7a. Can you describe a social support system and how it contributed to your academic success?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7b. Are there any other forms of social support that you can describe which helped you academically?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13. Can you provide examples of university support services or programming (eg. social, financial, immigration) and how it contributed to your success and persistence as an undergraduate student?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14. Are there examples of any other kinds of support systems (eg. family) or personal coping skills which contributed to your success and persistence as an undergraduate student?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15. What do you feel has been the single most important factor that has contributed to your success and persistence and why? (e.g - academic, social/other university programming and services, personal or family)</td>
<td></td>
</tr>
<tr>
<td><strong>Open-ended Questionnaires</strong></td>
<td>1. What academic support programming, system or factors have contributed to your persistence and success?</td>
<td>Identify themes, constant comparative analysis, coding, triangulation</td>
</tr>
<tr>
<td></td>
<td>3. What non-academic support programming, systems or factors contributed to your persistence and success?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. What personal coping factors contributed to your persistence and success? and be successful in college?</td>
<td></td>
</tr>
</tbody>
</table>
Table 3 (Continued)

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Collection Items</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. (Continued)</td>
<td>10. What advice would you give to other international students about how to overcome transition challenges and be successful in college?</td>
<td>Identification of themes, coding, triangulation</td>
</tr>
<tr>
<td></td>
<td>11. What would you recommend to this university to help international students overcome transition challenges and be successful in college?</td>
<td>Identification of themes, triangulation, descriptive statistics</td>
</tr>
<tr>
<td></td>
<td>Semi-Structured Interview with University Administrator</td>
<td>Identify themes, coding, triangulation</td>
</tr>
<tr>
<td></td>
<td>Secondary Data (university documents/data)</td>
<td>Identify themes, triangulation, descriptive statistics</td>
</tr>
<tr>
<td></td>
<td>Demographic Data from Questionnaires</td>
<td>Descriptive Statistics (mean, mode, median, frequencies)</td>
</tr>
</tbody>
</table>

Minimizing Bias and Establishing Trustworthiness

**Researcher Bias**

It is important for the researcher to position herself and to declare any possible biases she may have that could influence the study. In addressing researcher credibility, Patton (2002) declared, “The principle is to report any personal and professional information that may have affected data collection, analysis, and interpretation (negatively or positively) in the minds of users of the findings” (p. 566). Therefore, in the interest of full disclosure, I have been an international undergraduate student at a college in the USA. I am currently an international graduate student at different institution in the USA. I experienced some of the transition issues detailed in the literature, but my experiences as an international student have overall been very positive. I have also, as a higher education administrator, worked directly with/had direct responsibility for international students attending a higher education institution in a country outside of the USA. I am also trained in mental health counseling.
Moustakas (1994) described the concept of epoche as setting aside one’s preconceived ideas, prior knowledge and experiences, biases and prejudgments so as to make them invalid. Creswell (2007) further explained that epoche (also known as bracketing) involves the researcher setting aside prior experiences and personal views so that he or she can have a renewed perspective as they study and analyze the phenomenon. As the researcher, I bracketed my prior experience and feelings regarding the phenomenon of international student transition prior to beginning the study - this included a reflective process of labeling my prejudgments and feelings and listing them in written form to prepare me to better receive what was shared by the participants (Moustakas, 1994).

In addition, throughout the process of the study, I engaged in researcher reflexivity by keeping a journal in which I recorded my thoughts about information gathered from the participants, the research process, theories that emerged and topics that arose from/in the interviews and against which I checked with the participants for clarity of meaning and accuracy in interpretation (Janesick, 2010; Merriam, 2009). This journal also helped in identifying any significant new developments that required a change in study focus in order to facilitate emergent design flexibility.

Establishing Trustworthiness

Johnson and Christensen (2010) defined research validity or trustworthiness as research that is “plausible, credible, trustworthy and defensible” (p. 264). To minimize researcher bias and promote trustworthiness, it is recommended that researchers utilize the following strategies:

- reflexivity (self-reflection about biases and predispositions)
- negative-case sampling (intentionally selecting cases that will likely disconfirm anticipated results)
• establish descriptive validity (ensure the participants’ accounts are accurately reported)
• triangulation of theory, methods and data (use multiple observers to collect, cross-check and interpret data and/or use multiple methods of research and data collection and/or use multiple theoretical perspectives to interpret the data)
• establish interpretive validity (ensure the participants’ meanings are accurately reported)
• member checking/participant feedback (identify inaccuracies by discussing and verifying interpretations with the participants).
• low-inference descriptors (using some verbatim quotes from the participants in the study report)

(Johnson & Christensen, 2010).

Creswell and Miller (2000), indicated that common qualitative research validity procedures include member checking, data triangulation, use of rich, thick description, researcher peer reviews and external audits. They suggest that researchers determine what validity/credibility procedures to use based on the researcher’s lens (eg. determining data saturation and robustness of analysis, participant feedback on accuracy of interpretation or external reviewers) or the researcher’s paradigm (eg. the researcher’s worldview assumptions such as constructivist/interpretive, critical or post-positivist), (Creswell & Miller, 2000).

Yin (2014) specified that having a case study protocol (which includes the instrument as well as procedural guidelines) is essential for multiple case studies and is key in building reliability in case study research. Tenets of a case study protocol should include an overview of the case study (questions, theoretical frameworks, etc.), data collection procedures (data sources, ethical considerations, etc.), data collection questions (sources of evidence, research study
questions, etc.) and a guide for the case study report (outline, data format, etc.) (Yin, 2014). In this study, the detailed proposal and final dissertation format provided the case study protocol.

I utilized a variety of methods to establish trustworthiness/credibility in this study. These included: reflexivity (my researcher’s journal), descriptive and interpretive validity, triangulation (across data sources – participants, and methods – interviews and documents), member-checking with participants, thick description and low-inference descriptors.

Limitations

General weaknesses of qualitative research include lack of generalizability, time consuming data collection and analysis, and a greater possibility of researcher’s bias (Johnson & Christensen, 2010; Roberts, 2010). This study had limits in terms of the sample (international students who did not persist were not included in the interview sample, since they had left the university and were not accessible) and the time period of data collection (the timing of the study is limited to data collection within a one-semester period). The study included a small number of information-rich cases from a large southern, public institution and so it is possible that the findings may not necessarily be generalizable to that campus.

Summary

This chapter provides details of the type of study, theoretical perspectives and frameworks, sample, data sources and methods of data collection, and analysis for the proposed study. In depth explanations of the data collection methods, rationale for the design strategies, conceptual frameworks and development of instrumentation are provided to anchor the study. The study site and sample are outlined and analysis methods are defined.
Chapter Four – Data Analysis and Findings

The purpose of this qualitative study was to explore the various challenges that international undergraduate students perceive as jeopardizing their success as well as their response to challenges and their utilization of various support services for success. This chapter provides details of the data analysis process and also presents findings of this research study.

As outlined in Chapter Three, this research study utilized the following data collection methods: informational survey, interviews and archival document review. Using multi-modal data collection is standard for case-study design (Creswell, 2007; Yin, 2004).

Survey Procedure & Analysis

Per Seidman’s (2012) recommendations, a pilot study was conducted with current international students who were not eligible for the study to ensure clarity and understanding of both the survey and interview questions. The researcher made a few minor changes and additions to the survey questions based on feedback from the pilot study participants. These changes included the addition of Greek Life to the list of non-academic support programming/systems, adding isolation to social/cultural challenges, replacing the word conquered with experienced in the daily living challenges section, clarified not continuing studies by adding withdrawing/dropping out and rephrased question to include factors that delayed graduation plans. No changes were made to the interview questions.
An electronic survey was created using Survey Monkey. The participant invitation email with the survey link was issued by the International Services office to a database of 110 undergraduate international students based on the inclusion and exclusion criteria of the study. The population sample included students from 36 countries with the majority of students from Trinidad and Tobago, Jamaica, Venezuela, Columbia, Honduras and the Bahamas. The largest segment first enrolled in Fall 2012 (71 students) while the smallest segment first enrolled in Spring 2012 (2 students).

The response to the survey was initially very low. The researcher determined that incentives may be needed to improve the response rate. Nulty (2008) indicated that online survey response rates can be boosted by repeat reminder emails to non-respondents and incentives to students in the form of prizes. Small pre-paid financial incentives such as vouchers have been found to increase response rates and do not negatively affect the quality of responses (Deutskens, et al, 2004; Van Selm, et al, 2006). Following discussions with the researcher’s major professor and a request for approval from the Institutional Review Board, the survey was reissued offering incentives of a $5 Starbucks electronic gift-card to each participant who completed the electronic survey. Participants were asked to provide a valid email address at which to receive the gift-card. Reminder emails were sent by the International Services office to the database after the survey was initially issued. With the addition of this incentive, a total of 29 participants completed the survey yielding a 26% response rate.

Table 4 provides demographic information for the survey participants. The sample demographics indicated that survey participants were mostly female, between 21-23 years old and non-native English speakers. The college demographics were representative of the sample institution with most participants from the colleges of Arts & Sciences, Business and
Engineering. The majority (71%) of the participants enrolled in Fall 2012 and expected to graduate in Spring 2016. Additionally, 12 countries were represented with most survey participants (five) being from Venezuela, followed by three each from Spain, Trinidad & Tobago and Jamaica.

Table 4
Survey Participants’ Demographic Information

<table>
<thead>
<tr>
<th>Data</th>
<th>Sample n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>16</td>
<td>67%</td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>33%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-20 yrs</td>
<td>4</td>
<td>17%</td>
</tr>
<tr>
<td>21-23 yrs</td>
<td>19</td>
<td>79%</td>
</tr>
<tr>
<td>24-26 yrs</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>English First Language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>9</td>
<td>37%</td>
</tr>
<tr>
<td>No</td>
<td>15</td>
<td>62%</td>
</tr>
<tr>
<td>College</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Arts &amp; Sciences</td>
<td>9</td>
<td>37%</td>
</tr>
<tr>
<td>Business</td>
<td>5</td>
<td>21%</td>
</tr>
<tr>
<td>Engineering</td>
<td>7</td>
<td>29%</td>
</tr>
<tr>
<td>Honors</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Enrollment Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring 2012</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Summer 2012</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Fall 2012</td>
<td>17</td>
<td>71%</td>
</tr>
<tr>
<td>Spring 2013</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Expected Graduation Date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2015</td>
<td>4</td>
<td>17%</td>
</tr>
<tr>
<td>Spring 2016</td>
<td>11</td>
<td>46%</td>
</tr>
<tr>
<td>Summer 2016</td>
<td>4</td>
<td>17%</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>21%</td>
</tr>
<tr>
<td>Country of Origin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venezuela</td>
<td>5</td>
<td>21%</td>
</tr>
<tr>
<td>Spain</td>
<td>3</td>
<td>13%</td>
</tr>
<tr>
<td>Trinidad &amp; Tobago</td>
<td>3</td>
<td>13%</td>
</tr>
<tr>
<td>Jamaica</td>
<td>3</td>
<td>13%</td>
</tr>
<tr>
<td>Brazil</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Canada</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Honduras</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Ecuador</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Columbia</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>El Salvador</td>
<td>1</td>
<td>4%</td>
</tr>
</tbody>
</table>

N = 29

The researcher first reviewed the summary results provided by Survey Monkey. These results displayed chart summaries of the most popular responses for each question, percentage
totals for each question response, basic statistics for quantitative questions, how many participants fully completed the survey and how many participants skipped each question. Then the researcher reviewed the qualitative data gathered from the survey conducting a manual analysis of frequencies and themes. The researcher also used text analysis through Survey Monkey to examine the qualitative responses. The researcher completed a comprehensive analysis of all the survey data identifying trends, patterns and themes. Further examination of individual surveys was performed in order to evaluate potential interview participants.

**Interview Procedure & Analysis**

As stated in Chapter Three, the criteria for the interview sample was established, but was pending what unfolded in the survey data and would include disconfirming and homogeneous samples. Analysis of the survey data revealed that less than 50% of the study sample (10 respondents) identified their GPA above 3.5, with 3 respondents at 3.5 and 11 respondents below 3.5. Further analysis revealed that of the respondents who had volunteered for the interviews, only 5 had a GPA above 3.5, 1 participant was at 3.5 and 4 were below 3.5 (with one below 3.0). Both Creswell (2012) and Merriam and Tisdell (2015) indicate that confirming and disconfirming sampling is a valid strategy to use during the study to examine negative instances of the phenomenon and to further explore or test findings.

The researcher checked the Admissions website to investigate what the standard/average GPA requirement is to maintain international student academic scholarships at the study institution. It was determined that the requirement is a 3.0 GPA (University XYZ International Admissions, 2015). This requirement was further confirmed within the student interviews. It occurred to the researcher that while students may not have a GPA above 3.5, they may still be
considered successful, especially persisting after having faced a number of challenges and graduating within four years. This conclusion regarding the 3.5 GPA was a change from the original interview participant criteria that was previously established by the researcher.

The researcher reviewed the data for disconfirming cases/findings. While some of the interview participants had a GPA below 3.5, their challenges were similar and their coping strategies and success factors/formulas also had common elements. These elements of similarity regardless of GPA, were also evident among survey participants who likewise indicated strong coping skills and faced common challenges.

Both Patton (2002) and Yin (2014) identify emergent design flexibility as a valid strategy within qualitative research, providing the researcher some freedom to adapt the study and respond to changes that emerge in the data or that may require the inclusion of a new case to study. After reviewing the individual surveys of each of the participants who had volunteered for the interviews to examine individual case data, the researcher decided to make the adjustment to include interview participants who had GPA’s above 3.0. One participant had a GPA below 3.0. In further examining the within case data (survey results) of this participant, the researcher made the decision to include the participant in the interview phase for further investigation of the participant’s persistence as a potentially valuable disconfirming case (Merriam & Tisdell, 2015), focusing mainly on the participant’s response to extenuating circumstances (a family tragedy) and the impact on the participant’s academic status and GPA.

Survey participants were asked to provide contact information if they wished to take part in the interview portion of the research study. A total of ten student participants volunteered for interviews, however only nine of them followed through with completing the interviews when
contacted. Each participant was provided with a hard-copy of their individual survey answers for reference, if needed, throughout the course of the interview. The presence of the survey helped some participants to jog their memories regarding their previous responses so they could elaborate for the interview. All interviews for this research study were conducted face-to-face and were audio-recorded. A semi-structured interview format was utilized, so all participants were asked the same questions. The digital audio files were sent to a professional company for transcription. The researcher did an initial manual review of each transcript highlighting main answers to each interview question, jotting notes regarding codes and emerging themes and identifying salient quotes. Creswell (2012) described this process of exploring the data to get a general sense of it, jotting ideas and working through how to organize the data as preliminary exploratory analysis. The researcher also checked for any transcription errors while reading through each transcript and corroborated transcripts with written notes taken during each interview.

Creswell (2012) identified member-checking as one of the methods to establish credibility or trustworthiness in qualitative research studies. To ensure that the transcription was an accurate representation of their interview responses, each transcript was sent electronically to the respective participants for review for member-checking purposes. Participants were given a specific date by which to respond with any changes or concerns regarding their transcripts. Only one participant responded to fill in an inaudible section of her interview. There were no significant changes or corrections identified by any of the other participants.

Following the member-checking process, each transcript was uploaded into the qualitative analysis software, MAXQDA (MAXQDA, 2015) for the purpose of coding and further analysis. Each transcript was coded using MAXQDA software. Merriam and Tisdell
(2015) recommend the following criteria when creating categories, themes and findings: it should be “responsive to the purpose of the research, be exhaustive, be mutually exclusive, be sensitizing and be conceptually congruent” (pg. 212-213). Further, open coding, axial coding and constant comparative analysis are recommended as valid and thorough analysis methodologies for qualitative research (Creswell, 2012; Merriam & Tisdell, 2015).

Codes were categorized according to the interview question subjects and responses. Sub-codes were created under each question heading to provide a visual of trends and themes (open coding). Codes initially created were confirmed and/or revised by cross-checking the manually reviewed transcript notes with the code variables. Incorrect codes or categorizations were remedied through this process. The researcher used the MAXQDA software to create reports of codes, code variables, and code frequencies to show popular responses. The list of codes was then used to help identify emerging themes and to essentially create themes and sub-themes for the interviews (axial coding). A manual map of codes and themes was also used to provide constant comparative analysis with the software reports, thereby creating code trees from which to determine patterns and link themes to the research questions (Merriam & Tisdell, 2015). Survey data was compared with interview data to determine overlapping themes, additional themes and to confirm response trends, thereby providing triangulation of both sources and methods to create validity (Creswell & Miller, 2000).

Table 5 provides demographic data on the student interview participants. Assigned pseudonyms were used to protect the confidentiality of the participants.
Table 5

*Interview Participants’ Demographic Information*

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Gender</th>
<th>Country of Origin</th>
<th>Age Range</th>
<th>Year Enrolled</th>
<th>Expected Graduation Date</th>
<th>Major</th>
<th>College</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ronaldo</td>
<td>Male</td>
<td>Brazil</td>
<td>21-23 yrs.</td>
<td>FA 2012</td>
<td>SP 2016</td>
<td>Chemistry</td>
<td>Honors</td>
<td>3.3</td>
</tr>
<tr>
<td>Charmaine</td>
<td>Female</td>
<td>Jamaica</td>
<td>21-23 yrs.</td>
<td>FA 2012</td>
<td>SU 2016</td>
<td>Bio-Med</td>
<td>Arts &amp; Sciences</td>
<td>3.05</td>
</tr>
<tr>
<td>Tomas</td>
<td>Male</td>
<td>Venezuela</td>
<td>18-20 yrs.</td>
<td>FA 2012</td>
<td>SP 2016</td>
<td>Industrial Engineering</td>
<td>3.6</td>
<td></td>
</tr>
<tr>
<td>Duane</td>
<td>Male</td>
<td>Trinidad &amp; Tobago</td>
<td>21-23 yrs.</td>
<td>FA 2012</td>
<td>SP 2016</td>
<td>Marketing</td>
<td>Business</td>
<td>3.18</td>
</tr>
<tr>
<td>Marcus</td>
<td>Male</td>
<td>Trinidad &amp; Tobago</td>
<td>23-26 yrs.</td>
<td>FA 2012</td>
<td>FA 2016</td>
<td>Geography</td>
<td>Arts &amp; Sciences</td>
<td>2.73</td>
</tr>
<tr>
<td>Lily</td>
<td>Female</td>
<td>Ecuador</td>
<td>21-23 yrs.</td>
<td>FA 2012</td>
<td>FA 2015</td>
<td>Marketing</td>
<td>Business</td>
<td>3.95</td>
</tr>
<tr>
<td>Dario</td>
<td>Male</td>
<td>Columbia</td>
<td>21-23 yrs.</td>
<td>FA 2012</td>
<td>FA 2016</td>
<td>Electrical Engineering</td>
<td>Engineering</td>
<td>3.93</td>
</tr>
<tr>
<td>Celia</td>
<td>Female</td>
<td>Honduras</td>
<td>18-20 yrs.</td>
<td>FA 2012</td>
<td>SP 2016</td>
<td>Chemical Engineering</td>
<td>Engineering</td>
<td>3.75</td>
</tr>
<tr>
<td>Nadine</td>
<td>Female</td>
<td>Canada</td>
<td>21-23 yrs.</td>
<td>FA 2012</td>
<td>FA 2015</td>
<td>Psychology</td>
<td>Arts &amp; Sciences</td>
<td>3.5</td>
</tr>
</tbody>
</table>

The demographic information reveals that gender was almost equally represented among the interview participants: five male participants and four female participants. Participants were mostly in the 21-23 year age range and represented four colleges within the university and eight countries. All enrolled in Fall 2012, with most participants expecting to graduate in Spring 2016 and two expecting to graduate early in Fall 2015.

It should be noted that this research study also included an administrator interview. This interview was also conducted face-to-face, audio recorded and sent to the professional company for transcription. The same member-checking process was utilized. The researcher did an initial manual review of the transcript followed by coding within MAXQDA to identify frequencies and themes. An administrator was identified who was at the institution and working with international students during the time that study participants first enrolled. The administrator, who still currently works with international students at the study institution, was able to provide a
context of what needs, challenges, support services and programming were offered during the students’ tenure at the university. There have been some major changes to the services and support currently offered at the university (compared to four years ago) based on a significant increase in international student enrollment and response to the needs of this growing student population. Therefore, this historical data was important to provide an accurate representation of their experiences and interpretation of the data.

Documents Procedure & Analysis

The researcher obtained the following documents from the International Services Office (ISO) to provide a context of services, support and programming provided to international students from 2011-2013: international student list-serve archives, welcome letters from ISO and data on international student enrollment trends from 2010-2013 and current 2014-2015. These documents were manually coded as frequencies, themes and trends were identified. The researcher had hoped to review exit surveys of international students who had withdrawn, but was advised that such records do not exist. The researcher had also intended to review exit survey data of undergraduate international students as part of the document analysis. However, while the researcher was able to get a copy from the relevant department of the exit survey that all graduating undergraduate students are required to complete, reports of the exit surveys were not accessible. Therefore, exit surveys were not included in the documents data collection for this study.

Findings

Once codes, frequencies, categories and themes were determined through the analysis process, they were aligned to the four research questions guiding this study. This section
provides the findings from each of the data-collection methods as it relates to each research question. Summaries of findings, relevant themes and salient quotes are provided for each research question. Creswell and Miller (2000) indicated that thick, rich description of the themes of the study and vivid details of people’s feelings help to establish credibility. Verisimilitude is also created when readers of the narrative can understand what the participants have experienced (Creswell & Miller, 2000). Excerpts of the interviews are included for this purpose. Pseudonyms were assigned to each interview participant and are referred to throughout this section.

**Research Question One**

1. What specific academic challenges do successful international undergraduate students at a public research university in the USA perceive as jeopardizing their success and persistence?

The questions related to Research Question One (RQ1) focused specifically on academic challenges, timing of the challenges and the impact of those challenges. Frequencies for the survey data related to RQ1 are outlined in Table 6.

Table 6

*Frequencies of Survey Data – RQ1*

<table>
<thead>
<tr>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Challenges (SQ 5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching Styles</td>
<td>19</td>
<td>68%</td>
</tr>
<tr>
<td>Course Load/Assignments</td>
<td>17</td>
<td>61%</td>
</tr>
<tr>
<td>Advising Issues</td>
<td>11</td>
<td>39%</td>
</tr>
<tr>
<td>Interaction with Faculty</td>
<td>9</td>
<td>32%</td>
</tr>
<tr>
<td>English Proficiency</td>
<td>6</td>
<td>21%</td>
</tr>
<tr>
<td>Low GPA/Grades</td>
<td>5</td>
<td>18%</td>
</tr>
<tr>
<td>Needing Tutoring</td>
<td>3</td>
<td>11%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>University's Academic Expectations</td>
<td>1</td>
<td>3%</td>
</tr>
</tbody>
</table>
Major frequencies for academic challenges included teaching styles (68%) and course load/assignments (61%) followed by advising issues (39%) and interaction with faculty (32%).

Frequencies for the interview questions regarding academic challenges and their timing and impact are outlined in Table 7.

Table 7

*Frequencies of Interview Data – RQ1 (Per Participant)*

<table>
<thead>
<tr>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Challenges (IQ 1)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language (Academic)</td>
<td>5</td>
<td>55%</td>
</tr>
<tr>
<td>Time Management</td>
<td>5</td>
<td>55%</td>
</tr>
<tr>
<td>Understanding US Academic System (eg. credit hours, etc.)</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td>Being Too Social/Not Focused Enough on Studies</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Greatest Academic Challenge (IQ 2a)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keeping Balanced (Studies &amp; Involvement)</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Teaching Styles of Profs</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Staying Focused/Studying</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Deciding on a Major</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Course Work/Subject Challenges</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Online Classes</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Course Load (Number of Credits)</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Selecting Classes (too many options)</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Academic Status Jeopardy (GPA/Scholarship)</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Timing of Challenges (IQ 2b)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occurred Early/1st Semester</td>
<td>7</td>
<td>78%</td>
</tr>
<tr>
<td>Occurred Late/Senior Semester</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Impact of Academic Challenges (IQ 3)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changed Major</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td>Refine Career/Academic Goals</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Study Harder</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Sleep was Affected</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Made Sure Kept up GPA for Scholarship Requirements</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Made Me More Mature</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Learned Time Management Skills</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Panic (Created Sense of Urgency)</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Affected Self-Esteem</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>More Organized</td>
<td>1</td>
<td>11%</td>
</tr>
</tbody>
</table>

*N = 9*

Responses for interview questions relating to RQ1 were grouped into 4 main categories: Academic Challenges, Greatest Academic Challenge, Timing of Challenges and Impact of Challenges. Major frequencies for academic challenges identified in the interviews included
language (55%), time management (55%) and understanding the US academic system (44%).
Frequencies for the greatest academic challenge were evenly divided between all 9 participants
(there were no common responses). Frequencies for timing of the challenges were greatest for
those occurring early/first semester (78%). For the impact of major challenges, major
frequencies included changed major (44%) with refined career/academic goals, studied harder
and affected sleep each at (22%).

Administrator Interview Findings

The administrator interview revealed that academic issues are one of the main reasons that
international students at the sample institution do not persist, aligning with the students’
responses regarding the academic challenges they’ve encountered.

Cross-themes Analysis Across Survey and Interview Data

Academic challenges perceived as jeopardizing success – (research question 1). For
research question one, the major concept was academic challenges perceived as jeopardizing
success. Three main themes emerged from the data for this category – Faculty, Classes and
Academic Cultural Adjustment.

Faculty. The responses around faculty indicated some international students had
difficulties with the teaching styles of some faculty members. Other students indicated that they
had challenges interacting with faculty. This theme was primarily manifested in the survey data.
However, one interview participant explained a challenge with the teaching style of one of her
professors and how it affected her.

I was telling you that the differences in the style of teaching, how that has affected
me. I have had two classes with the same professor that I didn’t really get the style. I
don’t learn that good with that style. In the first class, I didn’t do good because of that.

(Celia – Chemical Engineering Major from Honduras).

Classes. The responses around classes revealed that some students had challenges with the course load/assignments, while others had advising issues or changed their major.

Academic cultural adjustment. The responses around academic cultural adjustment suggested a challenge with understanding/adjusting to the US academic system (such as the GPA system, etc.) as this was different from that of their native countries. Four interview participants mentioned difficulties with their adjustment to the US academic system. One of those four explained the serious nature of this challenge for him.

The first semester I end[ed] up losing my scholarship ‘cause I didn’t know about the GPA requirements and stuff like that. The greatest challenge for me would probably [have] been after receiving that notification that I lost my scholarship. I was basically from there on – from the second semester of my freshman year, I was basically playing catch up.

He also noted the differences in grading systems.

What was confusing for me and it’s still confusing is...a course where it’s based on a multiple-choice exam, because for me back home…it was essay-type questions, some were short answers – so you could actually explain yourself and justify your answer and stuff. (Duane – Marketing major from Trinidad & Tobago)
At least half of the interview participants indicated a challenge with language in the academic setting. The following excerpts from Charmaine and Tomas succinctly describe some of the language issues faced in the classroom.

*It’s kinda challenging when you have to be repeating yourself a lot, because the person’s not really understanding what you’re saying. I really don’t like repeating myself, for the most part. I find myself being quiet in a lot of my classes. I just don’t want to deal with it, so I’ll just sit there and listen for the most part. Which isn’t really helpful sometimes.*

(Charmaine – Bio-Medical major from Jamaica)

*When I started going from studying in Spanish to studying in English it was a challenge...I used to be good in chemistry and now I’m not because I basically struggle[d] myself through it....I’m good in chemistry, but in Spanish, not English...that was a big struggle in the beginning.* (Tomas – Industrial Engineering major from Venezuela)

**Summary of Research Question One Findings**

Common themes across the data for academic challenges included teaching styles, course-load/assignments, English proficiency and low GPA/grades. There were three overarching macro themes that emerged from the RQ1 data – Faculty, Classes and Academic Cultural Adjustment.

**Research Question Two**

2. What specific social, cultural and daily living challenges do successful international undergraduate students at a public research university in the USA perceive as jeopardizing their success and persistence?
The questions related to Research Question Two (RQ2) focused specifically on social, cultural and daily living challenges faced and conquered. Frequencies for the survey data aligned to RQ2 are outlined in Table 8.

Table 8

*Frequencies of Survey Data – RQ2*

<table>
<thead>
<tr>
<th>Social/Cultural Challenges (SQ 6)</th>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homesickness</td>
<td>12</td>
<td>48%</td>
<td></td>
</tr>
<tr>
<td>Cultural Misunderstandings</td>
<td>11</td>
<td>44%</td>
<td></td>
</tr>
<tr>
<td>American Cultural Rules</td>
<td>11</td>
<td>44%</td>
<td></td>
</tr>
<tr>
<td>Making Friends</td>
<td>9</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>Language Barriers</td>
<td>8</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>Getting Involved in Campus Life</td>
<td>5</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>(eg. student orgs, social events)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isolation</td>
<td>4</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Discrimination</td>
<td>1</td>
<td>4%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Daily Living Challenges (SQ 7)</th>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>22</td>
<td>85%</td>
<td></td>
</tr>
<tr>
<td>Finances</td>
<td>16</td>
<td>61%</td>
<td></td>
</tr>
<tr>
<td>Meal Plans/Food</td>
<td>13</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Student Visa/Immigration Issues</td>
<td>12</td>
<td>46%</td>
<td></td>
</tr>
<tr>
<td>Finding an On-Campus Job</td>
<td>8</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>6</td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>Safety</td>
<td>4</td>
<td>15%</td>
<td></td>
</tr>
</tbody>
</table>

\(N=29\)

Responses for the survey data for RQ2 were grouped into two main categories: Social/Cultural Challenges and Daily Living Challenges. Major frequencies for social/cultural challenges included homesickness (48%), cultural misunderstandings (44%), understanding American cultural rules (44%), making friends (36%) and language barriers (32%). For daily living challenges, major frequencies included transportation (85%), finances (61%), food/meal plans (50%), visa/immigration issues (46%), finding an on-campus job (31%) and housing (23%).
Frequencies for the interview questions related to social, cultural and daily living challenges are outlined in Table 9.

Table 9

*Table 9

**Frequencies of Interview Data – RQ2 (Per Participant)**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Challenges (IQ 8)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language (Social)</td>
<td>5</td>
<td>55%</td>
</tr>
<tr>
<td>Adjusting to US Drinking Age</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Homesickness</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Fallout with a Friend</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Cultural Challenges (IQ 9)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food</td>
<td>5</td>
<td>55%</td>
</tr>
<tr>
<td>Understanding US Way of Life</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td>Cultural Misunderstandings</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td>Culture Shock/Cultural Adjustment</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Making Friends</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Cultural Ignorance of Domestic Students re Other Countries</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Politics (US)</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Dress Code</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Fitting In/Finding a Common Culture</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Assumptions from Domestic Students</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Dating/Relationships</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Accent Problem/Having to Repeat Myself</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Daily Living Challenges (IQ 10 &amp; 11)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>8</td>
<td>89%</td>
</tr>
<tr>
<td>Finances/Financial</td>
<td>7</td>
<td>78%</td>
</tr>
<tr>
<td>Job Restrictions/Job Processes</td>
<td>7</td>
<td>78%</td>
</tr>
<tr>
<td>Housing</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Scholarship Restrictions</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Feeling Dependent on Others</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Understanding the US Health Insurance System</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>On Campus Housing Restrictions/Expense</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Getting Used to the US Currency/Exchange Rate</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Getting Groceries</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Getting Hair Done</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Off-Campus Housing Requirements (Guarantor, SSN#, etc.)</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Finding an On-Campus Job</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Immigration/Visa Rules/Restrictions</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Crime</td>
<td>1</td>
<td>11%</td>
</tr>
</tbody>
</table>

\[N=9\]

Responses for interview questions relating to RQ2 were grouped into 3 main categories:

Social Challenges, Cultural Challenges and Daily Living Challenges. Major frequencies for social challenges included language (55%) and also adjusting to the US drinking age and
homesickness each at (22%). Major frequencies for cultural challenges included food (55%), understanding the US way of life (44%), cultural misunderstandings (44%), culture shock/cultural adjustment (33%), making friends (22%) and cultural ignorance of domestic students re other countries (22%). For daily living challenges, major frequencies included transportation (89%), finances (78%), job restrictions/job processes (78%) and housing (33%).

Administrator Interview Findings

The administrator interview also highlighted homesickness, finances and housing as issues affecting international student persistence. Additionally, data from that interview also revealed that other challenges for international students include employment issues, university culture, connecting to a group and faulty immigration advice from some academic administrators.

Figure 1 provides a summary of the main themes from the administrator interview findings. These include data on international student challenges/needs, factors impeding persistence, retention trends, programming support and institutional support trends and factors.
### Challenges for International Students
- Housing
- Employment
- University culture/diversity
- Faulty immigration advice from academic administrators
- Connecting to a group

### Needs of International Students
- Enculturation
- Payment plan (to counteract foreign exchange restrictions in home countries)
- Impacted by world events

### Reasons International Students Don't Persist
- Homesickness
- Finances
- Academic Issues
- Housing Issues

### International Student Retention Trends
- Students who lived off-campus in their 1st year are not as persistent
- Involvement in campus life enhances persistence

### ISO's Support Approach & Programming 4 Years Ago
- Immigration/visa support
- Opportunities to engage in campus traditions
- Connect students with campus services
- Social programming
- Orientation
- Graduation Sash Ceremonies

### Influence of International Enrollment Growth on Current Institutional Support
- Comprehensive approach
- Campus-wide partnerships
- Broadened services across campus entities (beyond ISO)
- Need for cultural awareness/sensitivity across campus entities

### Importance of Institutional Support for International Student Success/Retention
- Financial support to respond to student needs is crucial
- Alignment with the strategic goals of the university (re: global goals, diversity, etc.)
- A welcoming university culture in which students feel supported
- Support from senior university administrators/leaders

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**Figure 1 - Main Themes from Administrator Interview**

**Cross-themes Analysis Across Survey and Interview Data**

**Social, cultural & daily living challenges perceived as jeopardizing success – (research question 2).** The major concept for research question two was social, cultural and daily living challenges perceived as jeopardizing success. Three main themes emerged from the data in this category – Acculturation, Adjustment and Barriers/Obstacles.

**Acculturation.** The responses around acculturation revealed that some students had challenges with homesickness, food, culture shock and understanding the American way of life.
I guess sometimes when – because I don’t know – I still don’t know what the American culture is, so sometimes I wouldn’t know what to talk to them about...even in my team sometimes they will be saying about something, but I don’t know what they’re saying. (Lily – Marketing major from Ecuador)

Two interview participants expressed frustration with what they viewed as American cultural ignorance regarding other countries. Ronaldo elucidated this point in his interview.

I don’t know how to say that in a good manner. It is a bad thing. It’s the lack of education in general in Americans. It’s terrifying...how people didn’t know where Brazil was. People thought Brazil was an American state....I do get annoyed when people infer certain things about it like that we have tropical diseases everywhere...that we don’t have universities in general. I was asked that question yesterday. Do you have universities in Brazil?...I was asked before if they have computers. It’s just something you wouldn’t imagine to have to deal with. You see it in movies and people tell you, but nothing prepares you....but all of that happened inside university environment so those are all college students. (Ronaldo – Chemistry major from Brazil)

Adjustment. The responses around adjustment indicated difficulties with cultural misunderstandings, American cultural rules, making friends and language (in a social context). Tomas shared how language issues have created a personal challenge for him.

The accent. Right now I’ve improved a lot on my English, but the accent was a problem. I used to have to repeat myself three times, four times. Morally speaking it was a struggle. I felt bad with myself because I – the simple fact of communicating was hard. 24/7 it was a struggle.
That was actually one of the biggest struggles that I faced. (Tomas – Industrial Engineering major from Venezuela)

Charmaine revealed how language issues played a role in cultural misunderstandings.

I’d just say the language. That’s the only thing. People not understanding. I remember one time I told my friend, “Hush.” He’s from here. He thought I was telling him to shut up, but when you say hush, it’s like – it’s okay. He was kinda offended. (Charmaine – Bio-Medical major from Jamaica)

While many of the adjustment challenges revolved around cultural issues, others had to do with daily living issues. Two interview participants mentioned a challenge with understanding the US health insurance system. Nadine illustrated this challenge during her interview.

Going to the doctor count as one of those? It’s such a different process here. In Canada you just have a health card....Here every time I have to go I have to find somewhere that will accept my insurance....Just this weekend I had to go to the emergency room because I had a bug bite that swelled up. My mom was freaking out. I had to go to three different places. I tried to go to the MedExpress. They said they didn’t accept my insurance. I had to go to the ER. Then I was just driving around town. It shouldn’t have been that hard. I just feel like I don’t really understand it. (Nadine – Psychology major from Canada)

Barriers/obstacles. The responses around barriers/obstacles demonstrated some challenges with transportation, finances, housing, visa/immigration issues and job restrictions/complexities. A majority of both the interview and survey participants identified
both transportation and finances as major challenges. Charmaine shared the impact of her financial challenges.

   It was getting really expensive, because when I initially came here, I remember my father told me like the day or the week before that I don’t think you should go because it’s really expensive and I don’t know how we’re going to afford it....I’m like hmm, well, we’re going to figure it out...something will work out....That was always the biggest thing, the biggest challenge, just finances...I didn’t really pay. Then I had a hold so I couldn’t sign up for any classes...so I’m like why am I doing this? Should I just drop out of school? I feel like this is just causing my parents too much stress. That was really difficult. Then I was moving to a new apartment and they needed like – it was just finances. They needed like two month’s rent up front. Luckily for me...I had a guarantor so that worked out. (Charmaine – Bio-Medical major from Jamaica)

Nadine elucidated some of the challenges related to housing and other daily living barriers she faced.

   Housing has been rough because they always want a social [security number] and then they need a guarantor but they won’t accept an international guarantor. Then applying for a credit card here doesn’t work. That’s always a hassle is asking someone to be your guarantor....the whole credit card thing, I just learned not to apply, not even try. I feel like there are a lot of limitations that come with being international. I just kind of learned to accept them instead of trying to fight them or find a way around them because I have bigger things to worry about. (Nadine – Psychology major from Canada)

Dario explained the transportation issues he faced.
Transportation here is awful. In my city you have buses and trains. You don’t need a car. It was really helpful, but you don’t need it. Here it’s impossible without it…you need a car to do everything. That was a huge problem. (Dario – Electrical Engineering major from Columbia)

Challenges with job restrictions was a major category for the interview participants (6 of 9). Several shared their experiences and frustrations with these challenges during their interviews.

International students can only work 20 hours on campus. That’s it. It’s never a problem until it is. Now that I’m looking for an on campus job you start realizing they have something called federal work study. I can’t wrap my mind around why do they have something that is a restriction for international students, something that is only for citizens, when citizens can work anywhere else. It doesn’t make sense why they separate so many jobs for US citizens only when you already have the whole market for US citizens. It’s not like I can go anywhere else. (Ronaldo – Chemistry major from Brazil)

Marcus also expressed his frustration with the job restrictions.

It’s like I feel so restricted. I feel like if this system is created for us to be at a disadvantage, to some degree, ‘cause mostly, at times, if you’re an international student coming here, most of us struggle to be here. Then you have to struggle more, working a minimum wage job for up to 20 hours a week on campus. I feel like if – it forces you to do things that you don’t want to do…it’s just like you have to struggle and find a hustle to make ends meet one way or the other….It doesn’t make things easy at all. (Marcus – Geography major from Trinidad & Tobago)

Celia described how the job restrictions affect students seeking US employment post-graduation.
They ask you, “Are you international? Are you a citizen? Or are you legally able to work here?”…Then you’re like, “No, and then they’re like, “Yeah, we cannot accept.” After you do a bunch of companies that say the same thing, that’s definitely something that brings you down. (Celia – Chemical Engineering major from Honduras)

Summary of Research Question Two Findings

Common themes across the data for social, cultural and daily living challenges included homesickness, cultural misunderstandings, adjusting to American cultural rules, language barriers, transportation, finances, food/meal plans, job issues/restrictions and housing. There were three overarching macro themes that emerged from the RQ2 data – Acculturation, Adjustment and Barriers/Obstacles.

Research Question Three

3. How do successful international undergraduate students at a public research university in the USA respond to the academic and other challenges that they perceive as jeopardizing their success and persistence?

The questions related to Research Question Three (RQ3) focused specifically on the response of international students to academic and other challenges, looking at the impact of these challenges on persistence/withdrawal and the students’ coping mechanisms/strategies. Frequencies for the survey questions are outlined in Table 10.
Table 10

Frequencies of Survey Data – RQ3

<table>
<thead>
<tr>
<th>Response to Academic &amp; Other Challenges</th>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Academic Strategies (SQ 2)</td>
<td>Study Habits</td>
<td>23</td>
<td>79%</td>
</tr>
<tr>
<td></td>
<td>Time Management</td>
<td>21</td>
<td>72%</td>
</tr>
<tr>
<td></td>
<td>Personal Academic Goal Setting (eg. maintain certain GPA)</td>
<td>21</td>
<td>72%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Personal Coping Factors (SQ 4)</td>
<td>Family Support</td>
<td>24</td>
<td>83%</td>
</tr>
<tr>
<td></td>
<td>Support/Friendships w/ other international students</td>
<td>22</td>
<td>76%</td>
</tr>
<tr>
<td></td>
<td>Support/Friendships with domestic students</td>
<td>21</td>
<td>72%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Factors That Interfered with Success/Delayed Graduation Plans (SQ 8) – (Categories from Open-Ended Data)</td>
<td>Health (mental &amp; physical)</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Financial</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Academics</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Jobs</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Family Member Death</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Early International Student Deadlines</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Considered Withdrawing &amp; Reasons (SQ 9) – Categories from Open-Ended Data</td>
<td>No/Never</td>
<td>15</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>5</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Health</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Finances</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Family Member’s Death</td>
<td>1</td>
<td>—</td>
</tr>
</tbody>
</table>

N=29

Responses for the survey data for RQ3 were grouped into four main categories: Personal Academic Strategies, Personal Coping Factors, Factors that Interfered with Success/Delayed Graduation Plans and Withdrawal Considerations. Major frequencies for personal academic strategies included study habits (79%), time management (72%) and personal academic goal setting (72%). Major frequencies for personal coping factors included family support (83%), support from/friendships with other international students (76%) and support from/friendships with domestic students (72%). The other two categories related to open-ended questions. The most popular responses for factors that interfered with success/graduation plans included health (mental & physical), financial and academic. For withdrawal considerations, the most popular
response was that participants never considered dropping out. The few who considered withdrawing did so for health, financial and family tragedy reasons – however, none actually withdrew.

Frequencies for the interview questions are outlined in Table 11.

Table 11

Frequencies of Interview Data – RQ3 (Per Participant)

<table>
<thead>
<tr>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response to/Coping with Academic Challenges (IQ 4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Org (Academic/Professional)</td>
<td>5</td>
<td>55%</td>
</tr>
<tr>
<td>Study Groups</td>
<td>5</td>
<td>55%</td>
</tr>
<tr>
<td>Ask for Help/Advice</td>
<td>5</td>
<td>55%</td>
</tr>
<tr>
<td>Prioritizing/Planning Ahead</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td>Advice From Peers</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td>Utilizing Office Hours</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Friends/Peers in Classes/Similar Majors</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Working on Campus</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Becoming More Focused on Academics</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Cultural Context/References in the Classroom</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Talk to Family</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Talk to Academic Advisor</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Utilized Academic Withdrawal/Grade Forgiveness</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>International Admissions Advisor/Recruiter</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Paying close attention in class to lectures/notes</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Had to Drop A Class</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Withdrawal Considerations (IQ 5)</td>
<td>6</td>
<td>67%</td>
</tr>
<tr>
<td>Thought of Dropping Out</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Response to/Coping with Daily Living Challenges (IQ 12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Resources</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td>Get Rides from Friends/Roommates</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Be Financially Responsible</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Talk to Others/Friends</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Ask For Help</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Work On-Campus</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Family</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Use Bull Runner/Bull Tracker</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Getting a Meal Plan</td>
<td>1</td>
<td>11%</td>
</tr>
</tbody>
</table>

N=9

Responses for interview questions relating to RQ3 were grouped into three main categories: Response to/Coping with Academic Challenges, Withdrawal Considerations and Response to/Coping with Daily Living Issues. Major frequencies for coping with academic
challenges included student organizations (academic/professional) (55%), study groups (55%), ask for help/advice (55%), prioritizing/planning ahead (44%), peer advice (44%), utilizing office hours (33%), support from friends in classes/similar majors (33%) and working on campus (33%). For withdrawal considerations, the major frequency was for never considering dropping out (67%). Major frequencies for coping with daily living issues were research resources (44%), get rides from friends/roommates (33%), be financially responsible (22%) and talk to others/friends (22%).

Cross-themes Analysis Across Survey and Interview Data
Coping with/response to academic and other challenges – (research question 3). The major concept for research question three was how international students respond to the academic and other challenges they perceived as jeopardizing their success. Five main themes emerged from the data for this category – Personal Study Strategies, Purpose/Goals, Resourcefulness, Positive Attitude and Determination/Resilience.

Personal study strategies. Responses around personal study strategies included time management, prioritizing/planning ahead and utilizing study habits and study groups as ways that students coped specifically with academic challenges.

Purpose/goals. The responses around purpose/goals demonstrated that students utilized an approach of personal academic goal setting and were committed to staying focused and knowing their purpose in order to be successful. Duane illustrated this succinctly in his interview.

The most important thing was that coming to college was my decision and the consequences, the successes, the everything was for me and for me to overcome or for me
to achieve. That helped me to really be successful...and to be persistent because it’s all on me kind of thing. (Duane – Marketing major from Trinidad & Tobago)

Resourcefulness. The responses around resourcefulness indicated that students coped by researching resources, were willing to ask for help and sought advice from peers to overcome their challenges. Two interview participants expressed that they often felt like they were dependent on others (especially when overcoming transportation challenges), but overall, participants asked for help when needed. Some participants also mentioned utilizing the campus bus system to assist with transportation needs.

Positive attitude. The responses around positive attitude showed that students were generally positive about their experiences despite their challenges and were willing to face them with an open mind and to get out of their comfort zones. Celia and Tomas shared this positive approach in their interviews.

Then, I will also say being positive, even though sometimes you may feel like misunderstood...because you’re an international student...you’re not with your same old friends, so you feel like – I might feel weird being – or awkward being with a group of people that are strangers. You have to realize those people are with strangers too, so that’s something. (Celia – Chemical Engineering major from Honduras)

Have fun. Explore. Get out of your comfort zone. It’s stressful, yeah. Sometimes it’s stressful, but the winning, it’s vast. (Tomas – Industrial Engineering major from Venezuela)

Determination/resilience. The responses around determination/resilience revealed a general tenacity and willingness among international students not to give up and stick to their
goals. The majority of both survey and interview participants never considered withdrawing from the university despite a variety of challenges they faced both in and out of the classroom. Duane, Lily and Nadine illustrated this spirit of determination in their interviews.

*My college experience has been the best. Despite even that academic challenges already. I never once questioned why I’m here, if I could do it or anything like that.*

(Duane – Marketing major from Trinidad & Tobago)

*Obviously, college is hard. Nobody expects it to be easy, but if you’re determined, and you believe in yourself, really you find new ways to do things….Just the thought of telling yourself you will get through it and you will be fine, I think that’s very important factor of not giving up.*

(Lily – Marketing major from Ecuador)

*I think my goals definitely. I’ve always set high standards for myself. That’s always been pushing me….No matter how tired I am, I don’t quit what I’m doing…I want to get somewhere…I just want to make something of myself because I’ve always had high goals and I feel like I don’t know what I’m going to do yet, but if I just keep pushing through, I’ll get there. There might be something good as long as I work hard.*

(Nadine – Psychology major from Canada)

**Summary of Research Question Three Findings**

Common themes across the data for response to academic and other challenges included study habits, time management, personal academic goal setting, family support, friend support and never considered dropping out. There were five overarching macro themes that emerged from the RQ3 data – Personal Study Strategies, Purpose/Goals, Resourcefulness, Positive Attitude and Determination/Resilience.
Research Question Four

4. What institutional, social and other support systems do successful international undergraduate students at a public research university in the USA perceive as contributing to their success and persistence and how do they use those support systems?

The questions related to Research Question Four (RQ4) focused specifically on institutional academic and non-academic support systems, services and programs utilized by the international student participants, social and other support systems and personal coping factors that contributed to their success and advice/recommendations to both fellow international students and the university on how to overcome and assist with challenges respectively. Frequencies for the survey questions are outlined in Table 12.

Table 12

Frequencies of Survey Data – RQ4

<table>
<thead>
<tr>
<th>Institutional, Social &amp; Other Support Systems for Success</th>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Support Programming/Factors (SQ 1)</td>
<td>Academic Advising</td>
<td>22</td>
<td>76%</td>
</tr>
<tr>
<td></td>
<td>Meetings with Professors</td>
<td>20</td>
<td>69%</td>
</tr>
<tr>
<td></td>
<td>Tutoring</td>
<td>14</td>
<td>48%</td>
</tr>
<tr>
<td></td>
<td>Study Groups</td>
<td>10</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>Non-Academic Support Programming/Factors (SQ 3)</td>
<td>Involvement in Other Student Organizations</td>
<td>18</td>
<td>62%</td>
</tr>
<tr>
<td></td>
<td>Working On Campus</td>
<td>15</td>
<td>52%</td>
</tr>
<tr>
<td></td>
<td>Scholarships</td>
<td>14</td>
<td>48%</td>
</tr>
<tr>
<td></td>
<td>Leadership Opportunities</td>
<td>13</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>International Services Office</td>
<td>6</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Orientation</td>
<td>6</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>General Campus Programming/Events</td>
<td>6</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Counseling Center Services</td>
<td>5</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>Friends of Internationals</td>
<td>5</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>Involvement in International Student Organizations</td>
<td>4</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>Involvement in Greek Life</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Involvement with Faith-Based/Religious Groups</td>
<td>3</td>
<td>10%</td>
</tr>
</tbody>
</table>
Table 12 (Continued)

<table>
<thead>
<tr>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-buddy Program</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>Living-learning Community in Campus Residence Hall</td>
<td>1</td>
<td>3%</td>
</tr>
</tbody>
</table>

Advice to Other International Students for Success (SQ 10) – (Categories from Open-Ended Data)

<table>
<thead>
<tr>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get Involved</td>
<td>7</td>
<td>—</td>
</tr>
<tr>
<td>Make Friends</td>
<td>5</td>
<td>—</td>
</tr>
<tr>
<td>Set Goals/Keep Focused on Studies</td>
<td>5</td>
<td>—</td>
</tr>
<tr>
<td>Be Open-Minded/Get Out of Comfort Zone</td>
<td>5</td>
<td>—</td>
</tr>
<tr>
<td>Seek Help</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td>Make use of Opportunity</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td>Accept/Overcome Challenges</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td>Be Yourself</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>Be Informed/Seek Resources</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>Motivate Self</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Study Groups</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Be Positive</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Seek Balance</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Live on Campus</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Do Paperwork Early</td>
<td>1</td>
<td>—</td>
</tr>
</tbody>
</table>

Recommendations to University to Support International Students (SQ 11) – (Categories from Open-Ended Data)

<table>
<thead>
<tr>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Already Does a Good Job/Offer Social Programming</td>
<td>5</td>
<td>—</td>
</tr>
<tr>
<td>More Mentoring Programs/Social Events</td>
<td>4</td>
<td>—</td>
</tr>
<tr>
<td>More Patient ISO Staff</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td>More Advising/Mentoring</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>More Tutoring</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>More Information on Resources</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>More Private Counseling</td>
<td>1</td>
<td>—</td>
</tr>
</tbody>
</table>

N=29

Responses for the survey data for RQ4 were grouped into four main categories: Academic Support Programming/Factors, Non-Academic Support Programming/Factors, Advice to Other International Students for Success and Recommendations to the University to Support International Students. Major frequencies for academic support factors included academic advising (76%), meetings with professors (69%), tutoring (48%) and study groups (34%). Major frequencies for non-academic support factors included involvement in other (non-international) student organizations (62%), working on campus (52%), scholarships (48%) and leadership opportunities (44%). The other two categories related to open-ended questions. For advice to other international students for success, major frequencies included get involved, make friends,
set goals/keep focused on studies and be open-minded/get out of comfort zone. For recommendations to the university on how to support international students, major frequencies included the university is doing a good job/providing social programming, more mentoring and social events needed and more patient ISO staff needed.

Frequencies for the interview questions are outlined in Table 13.

Table 13

*Frequencies of Interview Data – RQ4 (Per Participant)*

<table>
<thead>
<tr>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>University’s Academic Programs Used for Success (IQ 6)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tutoring</td>
<td>8</td>
<td>89%</td>
</tr>
<tr>
<td>Writing Center</td>
<td>5</td>
<td>55%</td>
</tr>
<tr>
<td><strong>Social Support Systems Used for Academic Success (IQ 7)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends/peers</td>
<td>8</td>
<td>89%</td>
</tr>
<tr>
<td>Family</td>
<td>7</td>
<td>78%</td>
</tr>
<tr>
<td>Roommates</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td><strong>University Support Services/Programming Used for Academic Success (IQ 13)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Orgs</td>
<td>6</td>
<td>67%</td>
</tr>
<tr>
<td>International Services Office (ISO)</td>
<td>5</td>
<td>55%</td>
</tr>
<tr>
<td>Career Services</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td>Counseling Center</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td>Academic Advising</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Student Health Services</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Student Health Insurance</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Scholarships</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Library</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Campus Bookstore</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Orientation</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>CLCE</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Commons Area (borrow Macs, cameras, etc.)</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>OFSL</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Campus Gym</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Ombuds Office</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Credit Union</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Undergraduate Research Opportunities</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Conference/Travel Grants</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Financial Aid Office</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Other Support Systems/Personal Coping Used for Success (IQ 14)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Determination</td>
<td>5</td>
<td>55%</td>
</tr>
<tr>
<td>Positive Attitude to Challenges</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td>Involvement on Campus</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Knowing My Purpose/Staying Focused</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Encouragement from Others (Family and/or Friends)</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Finding Balance/Stress Management</td>
<td>2</td>
<td>22%</td>
</tr>
</tbody>
</table>
Table 13 (Continued)

<table>
<thead>
<tr>
<th>Themes</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Support Systems/Personal Coping Used for Success (IQ 14) - Continued</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meditation</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Faith</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Being Friendly &amp; Open-Minded</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Greek Life (Fraternity/Sorority)</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Single Most Important Factor Contributing to Success (IQ 15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Support/Encouragement</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Not Wanting to Let Down Parents/Family</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Self-Determination (Not giving up)</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Friends' Support/Encouragement (most important)</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>My Decision/My Goal &amp; Purpose to Achieve</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>Self-Awareness (Knowing Limitations)</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Choices/Options in the US to Pursue Goals/Dreams</td>
<td>1</td>
<td>11%</td>
</tr>
</tbody>
</table>

N=9

Responses for interview questions relating to RQ4 were grouped into five main categories:

University’s Academic Programs Used for Success, Social Support Systems Used for Academic Success, University’s Support Services/Programming Used for Academic Success, Other Support Systems/Personal Coping Used for Success and Single Most Important Factor Contributing to Success. Major frequencies for university’s academic programs used included tutoring (89%) and writing center (55%). Major frequencies for social support systems used included friends/peers (89%) and family (78%). For university support services/programming used major frequencies included student organizations (67%), international services office (ISO) (55%), career services (44%) and counseling center (44%). For other support systems/personal coping used major frequencies included determination (55%) and positive attitude to challenges (44%). Major frequencies for the single most important factor contributing to success included family support/encouragement (33%), not wanting to let down parents/family (33%), self-determination (22%), support from friends (22%) and personal goal/purpose (22%).
Administrator Interview Findings

The administrator interview data revealed that when most of the study participants enrolled (2012), the support approach of the International Services Office (ISO) at the time included the following: immigration/visa support, opportunities to engage in campus traditions, connecting international students with campus services, social programming, orientation and graduation sash ceremonies. This connects with some of the survey and student interview data which indicated that students used ISO’s services, sought help from other campus services and valued involvement in campus life. There were several themes from the administrator interview that overlapped with the findings from the student interviews and surveys. Figure 2 shows the overlapping themes relating to main challenges, factors negatively affecting persistence, factors that enhance persistence and ISO’s support approach 4 years ago.

![Diagram showing themes from administrator interview that overlapped with survey & student interview data]

Figure 2 - Cross Analysis – Showing Themes from Administrator Interview that Overlapped with Survey & Student Interview Data
**Document Findings**

The document analysis included a review of list-serve archives from ISO as well as ISO welcome letters to incoming new international students. Analysis of the archives of the international student list-serve indicated that information regarding social events, academic events/activities, campus events/activities and ISO office hours were the most common themes from Fall 2011 through Spring 2013. A variety of information and resources were issued through the list-serve to internationals on a monthly basis, each semester.

Welcome letters to new students from ISO provided basic information about check-in sessions for F-1 and J-1 students. They also outlined specific sessions for alternate visa, transferring and change of level in Fall 2012. In Spring 2013 there was one less check-in session for F-1/J-1’s, but 2 sessions were added for transferring F-1 students in Spring 2012. In Spring 2013 there was an increase of $1000 recommended to cover expenses for the first month after arrival. The welcome letters showed an adjustment to the changes in the international student population each academic year and also to the related costs to help prepare the incoming students. These documents confirmed some of the data that emerged in the administrator interview regarding ISO’s support approach and services during the sample population’s early enrollment period.

The International Services Office also provided information on international student enrollment trends at the study institution. The data revealed that international student FTIC’s (first time in college) numbers increased significantly from Fall 2012 to Fall 2014. This data supported some of the changes in ISO documents, such as welcome letter information and also
corroborated the administrator’s discussion about responding to enrollment growth trends in terms of services, approach and programming both in ISO and campus-wide.

Table 14 presents the enrollment numbers for first time in college (FTIC) international students (University XYZ, Infocenter, 2016).

Table 14  
**International Student FTIC Enrollment Numbers**

<table>
<thead>
<tr>
<th></th>
<th>Fall 2010</th>
<th>Fall 2011</th>
<th>Fall 2012</th>
<th>Fall 2013</th>
<th>Fall 2014</th>
<th>Fall 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>65</td>
<td>64</td>
<td>98</td>
<td>155</td>
<td>189</td>
<td>187</td>
</tr>
</tbody>
</table>

**Cross-themes Analysis Across Survey and Interview Data**

**Institutional, social & other support systems contributing to success – (research question 4).** For research question four the major concept was institutional, social and other support systems perceived as contributing to success and persistence. Four main themes emerged from the data for this category – Utilization of University Support Services, Campus Involvement, Family Support and Friend Support.

*Utilization of university support services.* The responses around utilization of university support services indicated that students used a variety of both academic and non-academic university resources in order to be successful. Services included tutoring, study groups, academic advising, the writing center, international services, career services and the counseling center.

*Campus involvement.* The responses around campus involvement were exceedingly positive elements that students considered to have contributed to their success. This mainly included involvement in student organizations (both academic and non-academic). Students also
recommended campus involvement to their peers when asked for advice they would give for success. The following interview excerpts from Dario, Duane and Nadine show a range of campus involvement experiences.

*The Institute of Electrical and Electronic Engineers. We have a club here...I was friends with them and you network with people. I also belong to SHPE, Society of Hispanic Professional Engineers...in SHPE they promote the familia. That’s kind of your buddies, so you’re not by yourself. (Dario – Electrical Engineering major from Columbia)*

*I feel like that primarily relates to my involvement on campus. Because of that involvement it helped me to become more attached to my dream of getting a degree....The organizations I was involved in, they are very prestigious organizations on campus. I was surrounded by individuals who shared these ambitions as me or even bigger ambitions. That gave me a zeal to – and that support system because they didn’t necessarily support me, but seein’ them achieve greatness motivated me to achieve greatness. (Duane – Marketing major from Trinidad & Tobago)*

*I feel like when you come to a new place you just kinda change and you reach out to people and you wouldn’t find yourself normally doing that. I think that helped a lot, especially during my freshman year because I reached out to all the organizations that in turn helped me anyways. (Nadine – Psychology major from Canada)*

*Family support. The responses around family support revealed the significant role that family plays in the international student success model. Several participants noted the support and encouragement of family as especially meaningful and helpful. Others expressed the*
sacrifice that parents had made for them to study in the US and they indicated that their success was in part driven by a desire to honor this sacrifice and a determination not to let down their parents/families. Charmaine, Marcus and Dario illustrated the role of family support in their interviews.

I just think my parents are just really – my parents and my sister, they’re just really helpful and supportive. They’re really encouraging. (Charmaine – Bio-Medical major from Jamaica)

My family because they have sacrificed and given me everything they could. You feel like you have that obligation to give back or, even if you don’t give back…but at least use the launching pad that they gave you to reach to the heights and successes that they wanted you to reach to. It’s honoring their sacrifice, I guess. (Marcus – Geography major from Trinidad & Tobago)

I think making my mom happy. That’s the number one motivation by far. She has done a lot for me, and I feel the least I can do is do well academically ‘cause she sees it as a return for her, for doing well and being responsible, not wasting time, not being silly…I owe her that. I don’t have any excuse to be goofing off at any time ‘cause they don’t get time to do that. I think that motivation is always there. (Dario – Electrical Engineering major from Columbia)

Friends support. The responses around friends support also demonstrated the high value that students placed on the support they received from friends in terms of how it contributed to their success. This included support from both international and domestic friends.
Well, I mean, sometimes really hanging out with your friends or meeting new people, it – say if you have a major problem, or you feel like you can’t get out of that low stage, but meeting new people and just talking to them, it helps you get out of that stage.

Yeah. You never know. You might meet people who can help you. (Lily – Marketing major from Ecuador)

Charmaine commented.

My friends...they listen to me a lot when I’m going through my issues. My family, but more so my friends because they actually understand what I’m talking about a lot of times when it comes to classes. My family they’re not really sure....my parents didn’t go to college, so...it’s like a whole new world, so they don’t understand credits or classes or stuff like that. (Charmaine – Bio-Medical major from Jamaica)

Celia explained the value of the support of friends.

I will say the social part...like just having friends in the department, having friends outside of the department, like my roommates played a big role – here in the university is definitely something important....If you don’t feel like you have friends, if you feel like you’re alone here, then the first thing that you want to do is go back...and then you’re not gonna concentrate on studies, you’re not gonna succeed in anything....well, your goal is to do good in academics, but what keeps you doing good I think will be the social aspect. (Celia – Chemical Engineering major from Honduras)

Summary of Research Question Four Findings

Common themes across the data for institutional, social and other support
systems for success included academic advising, tutoring, involvement in student organizations, international services office, orientation, counseling center services, involvement in campus life, make friends and set goals/keep focused. There were four overarching macro themes that emerged from the RQ4 data – Utilization of University Support Services, Campus Involvement, Family Support and Friend Support.

Anecdotal Information

While the study was driven by the four research questions, some additional insights from the data emerged that are noteworthy. These include how the international students related to faculty, commonalities in challenges and coping despite GPA, the possible impact of living on-campus during the first year of college and trends regarding international vs. domestic student friendships.

It should be noted that while faculty emerged as a theme under academic challenges, some of the interview participants also praised their faculty as being helpful and accessible and demonstrating that they want their students to succeed. Others also utilized office hours/meetings with professors as strategies for success, indicating that they also found faculty to be approachable and helpful.

While Fischer (2014) and Mamiseishvili (2012) identified GPA as a factor impacting international student adjustment and persistence, across the board in this study, GPA did not seem to have a major impact on the number and types of challenges, graduation completion rates (most self-reported a 4-year graduation rate with a few graduating in less than 4 years) or withdrawal considerations (with the majority not considering withdrawing).
While there was no specific question in either the survey or the interview protocol regarding living on-campus vs. off-campus, all 9 student interview participants indicated during their interviews that they lived on campus for at least the first year of enrollment. Some mentioned the convenience of living on campus during that time. It should be noted that in 2009, the study institution instituted a requirement (which has remained in effect until 2015) that all FTIC students live on campus for at least their first year of college. Some interview participants remained on campus for at least another year, while others moved off-campus after their first year. The administrator interview data suggested that this initial on-campus housing status is a crucial element in international student persistence. The administrator had the context of working with international students at the study institution both prior to and during the live-on requirement years and was therefore able to provide that comparative perspective regarding on-campus living and its impact on the students’ persistence. It should also be acknowledged that since all the students in the study lived on-campus during their first year of studies, this likely afforded them an easier opportunity to engage in the campus life experience and to develop healthy patterns and habits of both engagement and utilization of support services, which may have contributed to their persistence and success.

Trends from the survey data indicated an almost even recognition of domestic student friendships versus international student friendships in terms of friend support. Noticing this trend which seemed contradictory to the literature, when interview participants noted the role friend support played in their success, the researcher probed to find out if the participants had more international or more domestic friends. Six of the nine participants noted that they had predominantly international friends, which was more in keeping with the trend identified in the
literature that international students tend to gravitate more towards friendships with other international students (Rajapaksa & Dundes, 2002).

**Summary**

This chapter presented analysis of data and findings of the qualitative study. The study focused on four research questions and data collection included a survey, interviews and documents. Main themes connected to each research question were outlined, frequencies were presented and interview excerpts illustrated the major concepts.
Chapter Five – Conclusion and Recommendations

The international student population in the USA continues to grow, with a record 293,766 new international students enrolling for the 2014-2015 academic year, representing an 8.8% increase over the previous year (Open Doors, 2015). In total, 974,926 international students were enrolled in US higher education institutions during the 2014-2015 academic year, representing 4.8% of the total number of higher education students in the USA (Open Doors, 2015). This growing population of international students faces a number of challenges while studying in the USA, including academic, cultural, social and daily living issues. This study explored those challenges specifically focusing on those that impact students’ success and persistence and the factors that help overcome these challenges and contribute to success. This chapter provides a discussion of the significance of the study findings, how the findings connect to the literature, implications for practice, limitations of the study and recommendations for future research.

Purpose of the Study

This study was designed to explore the transition experiences of international students specifically as it relates to their persistence and success. Within the context of challenges that they face, the study examined factors that the students perceived as jeopardizing their success and further explored the factors (institutional and personal) these students perceived as enhancing their success and persistence. The qualitative design of the study enabled the students to share their opinions and discuss their experiences and the narrative report allows the reader to
“hear” the students’ voices through the interview excerpts as they presented their perceptions and perspectives.

Research Questions

This study was designed to answer the following questions:

1. Research Question 1 (RQ1): What specific academic challenges do successful international undergraduate students at a public research university in the USA perceive as jeopardizing their success and persistence?

2. Research Question 2 (RQ2): What specific social, cultural and daily living challenges do successful international undergraduate students at a public research university in the USA perceive as jeopardizing their success and persistence?

3. Research Question 3 (RQ3): How do successful international undergraduate students at a public research university in the USA respond to the academic and other challenges that they perceive as jeopardizing their success and persistence?

4. Research Question 4 (RQ4): What institutional, social and other support systems do successful international undergraduate students at a public research university in the USA perceive as contributing to their success and persistence and how do they use those support systems?

Summary of Method & Findings

This qualitative study utilized a case study design and featured data collection through surveys, interviews and review of archival documents. A total of 29 students completed the electronic survey through a Survey Monkey link issued by the International Services office. An
incentive of $5 Starbucks electronic gift-cards was provided to each participant who completed the survey. Of the survey participants, 10 volunteered to take part in the interviews, however only 9 completed the interviews. There was also an interview with an administrator who provided an institutional perspective and described the context of the institutional support which student participants received when first enrolled at the institution. The explanation of this context was important since increased international student enrollment growth at the study institution has resulted in some changes to the services provided and enhancements in programming. All interviews (student and administrator) were conducted face-to-face and were audio recorded. Interviews were transcribed by a transcription company and individual transcriptions were sent to all participants for member-checking purposes. The researcher also reviewed documents including welcome letters from the International Services office, archives of emails sent to the international student list-serve and international student enrollment reports (for First-Time in College/FTICs).

Survey data was analyzed through Survey Monkey reports and the researcher’s review. Interview data was uploaded into MAXQDA’s qualitative analysis software program. Documents were analyzed manually. All data were analyzed for frequencies, patterns and themes. The researcher grouped codes into categories and identified emerging themes and macro-themes. Cross-case analysis was performed to determine patterns and themes across the data. All themes were aligned to the research questions to organize and present the analysis and findings.

Findings for RQ1 indicated that major academic challenges included teaching styles, course-load/assignments, advising issues, interaction with faculty, language, time management and understanding the US academic system. Challenges tended to occur early in the students’
academic careers or during the first semester. Students mainly responded to these challenges by changing their majors, refining their academic goals or studying harder.

Findings for RQ2 revealed that social/cultural challenges included homesickness, cultural misunderstandings, understanding American cultural rules/way of life, culture shock, making friends and language barriers. Daily living challenges included transportation, finances, food, visa/immigration issues, job restrictions and housing.

Findings for RQ3 disclosed that students mainly had a positive approach in their response to academic and other challenges. This included strategically utilizing study habits and study groups, practicing time management and personal academic goal setting/prioritizing, asking for help, seeking advice from peers and leaning on support from both family and friends. Additionally students coped through campus involvement, (especially with student organizations) and others worked on campus and researched resources that could help them to be successful. While most students faced challenges, the majority never considered dropping out of college.

Findings for RQ4 showed that a variety of institutional support services and programming, as well as social support systems and personal coping factors, contributed to the students’ success. This included academic advising, meetings with professors, tutoring, the writing center, career services, the counseling center, study groups, student organizations, on-campus jobs, scholarships, leadership opportunities, friend support and family support. In addition, personal goals, honoring family sacrifices, self-determination and a positive attitude to challenges were also factors in their success formula.
Alignment with Previous Research

Findings from this qualitative study mostly aligned with previous research. For RQ1, as Robertson, et al (2000) indicated, language barriers can impact classroom participation. Also, most challenges tend to occur during the first year of study (Lee & Wesche, 2000; McLachlan & Justice, 2009; Schutz & Richards, 2003; Senyshyn et al., 2000). For RQ2, acculturative stressors included language, getting used to a new educational system, transportation, housing and finances (Smith & Khawaja, 2011). Andrade (2006) and Sumer, Poyrazli and Grahame (2008) also confirmed language, social adjustment and homesickness as some of the social and cultural challenges that international students face.

Interestingly, findings for RQ3 aligned with Hechanova-Alampay, et al’s (2002) conclusion that students with higher self-efficacy adjust easier. It seemed apparent that the determination, drive and resourcefulness of the study participants served them well in their transition process and ultimately aided their success. Similarly, the study participants’ mostly positive approach and their attitude towards the challenges were consistent with Schlossberg’s (2005) theory of transition, particularly how persons determine their coping plan and the factors (namely Situation, Self and Strategies) that impact their coping. Schlossberg (2005) indicated that persons are impacted by the Situation based on their perceived level of control, role impact, duration and timing; the Self based on personal characteristics and psychological resources such as self-efficacy and resilience and also Strategies such as seeking information and taking direct action. Many of the students displayed positivity, a great deal of self-determination, sought help and utilized personal coping strategies in order to overcome challenges and be successful, thereby aiding in their transition.
For RQ4, another one of Schlossberg’s (2005) 4 S’s (Support) was also evident. Support from family and friends featured prominently across the data in terms of a coping strategy as the study participants faced change and encountered challenges. Support from the institution (provision of support services and programming) was also evident in the study findings. Support from friends/roommates and involvement in student organizations aligned with Abe, Talbot and Gellhoed’s (1998) study regarding factors that helped with international student adjustment and also with Sumer et al’s (2008) conclusion that strong social support networks help students adjust better. Poyrazli and Grahame’s (2007) factors that aid in adjustment confirmed the findings related to institutional support and involvement in extra-curricular and group activities. Similarly, the findings aligned with Andrade’s (2005) assertion that involvement impacts persistence.

Additionally, the use of university support services, commitment to academic goals and the dominant theme of involvement across the study data were consistent with Tinto’s (2002) four pillars of retention (specifically a supportive academic and social environment, involvement and motivation for learning). Furthermore, Boyer and Sedlacek’s (1988) conclusion that self-confidence and strong personal support predicts grades and academic success aligns well with the study findings, which revealed a strong support system, adherence to academic goals and determination as part of the students’ success formula. Finally, Frost (1991) confirmed the findings that students sought help with careers and writing skills to help them cope with the demands of their new academic setting.

However, while several of the study findings were corroborated in the literature, there were a few findings that contrasted with previous research. Cheng, et al (2004) and Andrade (2006) found that pressure to perform well and honor family expectations/sacrifice can create
stress, lessen social interactions and reduce utilization of support/seeking help. However, participants in this study did not seem to be negatively impacted by any pressure they felt to perform or to honor parental sacrificial support and many actively sought help and used support services. Rather, students used the honoring of family sacrifices and making the most of the opportunity to study in the USA as an impetus to succeed. This approach may be due to personal motivation factors/goal setting as well as a comfort level with and awareness/knowledge of support services that were available to them. Additionally, several participants noted that they sought and got advice from peers. It is also possible that peer advice may have influenced utilization of support services.

Another contradictory finding was Mamiseishvili’s (2012) conclusion that social integration (in student organizations, etc.) was a negative predictor of persistence. Findings of this study are clearly at odds with that conclusion, as across data sources, it was evident that involvement played a significant role in both success and persistence and student organizations served as part of a support system that enhanced both development and success.

**Results Summary**

Research Question One (RQ1): The focus of RQ1 was academic challenges that international students perceive as jeopardizing success. Macro-themes that emerged for RQ1 included Faculty, Classes and Academic Cultural Adjustment. The findings indicated that the students encountered a number of academic challenges during the course of their studies. These challenges can be categorized as academic transition. Research Question Two (RQ2): RQ2 focused on social, cultural and daily living challenges that international students perceive as jeopardizing success. Macro-themes that occurred for RQ2 included Acculturation, Adjustment...
and Barriers/Obstacles. The findings indicated a wide variety of challenges that can be categorized as cultural transition.

Research Question Three (RQ3): The focus of RQ3 was personal strategies and coping mechanisms that students used in response to the challenges they faced. Macro-themes that emerged for RQ3 included Personal Study Strategies, Purpose/Goals, Resourcefulness, Positive Attitude and Determination/Resilience. These combined factors can be categorized as personal strengths. Research Question Four (RQ4): RQ4 focused on university and other support systems, programming and services that students utilized for success. Macro-themes that emerged for RQ4 included Utilization of University Support Services, Campus Involvement, Family Support and Friend Support. These elements can be categorized as support.

While it is evident that the international students in this study faced a number of academic, social, cultural and daily living challenges, it is also clear that their willingness to have a positive approach to the transitions they faced, their resilience and their spirit of determination played a major role in their success and persistence. The students seemed to embrace their university experience through involvement, working on campus and investing in their academic success by utilizing university services and remaining focused on their academic goals.

In spite of facing significant challenges, they were able to achieve persistence and success through a blend of personal fortitude and university resources in what emerged as a success model. Figure 3 illustrates this model/summary. This model combines campus involvement, utilization of university support services and support from friends and family to overcome academic and other challenges and remain successful. However, at the core of this model is personal strength which seemed to be a driving force in the students’ coping, focus and
persistence and which ultimately impacted their overall success. This personal strength also includes their determination and resourcefulness which seemed to be motivating factors for their success and coping. It should be noted that this is a grounded model developed from pattern analysis and comparing the experiences and accounts of international students in this context (Merriam & Tisdell, 2015).

Figure 3 - International Student Success Model/Study Summary (Created by Researcher)

Additional Observations

There were some additional observations that emerged from the study data. This section includes how the data connects to recent literature and unexpected results that occurred in the study.
Recent Literature

A small number of studies on international student adjustment, satisfaction and retention have been published since this research study began. It is important to note these studies and indicate that findings of this study both aligned and contrasted with this recent literature. A Ruffalo Noel-Levitz (2015) report (gathered from surveying over 2,700 prospective international students in over 160 countries) on engaging international students in the admissions process indicated that finances (77%), not having friends or family nearby (31%), visa requirements (28%), language barriers (24%) and cultural differences (15%) were some of the major concerns for international students considering studying in the USA. The study findings align with this report showing that some of these concerns become reality and create challenges once students enroll in US institutions. Conversely, the report indicated that students were also concerned about safety around campus (27%) and safety on campus (25%) (Ruffalo Noel-Levitz, 2015). While safety is often an important issue to international students and parents, safety was not identified as a major challenge among the participants in this study.

Interestingly, the report also highlighted parental involvement and influence as an important factor in the admissions process. According to the Ruffalo Noel-Levitz (2015) report, 61% of respondents indicated a joint-decision process with their parents in deciding which US college to attend and 69% reported that they would be funding their US education through personal/family funds. This finding regarding parental influence aligns with the study findings regarding parental support, suggesting that their involvement in the decision making process to study in the US continues once students enroll in the form of ongoing personal and emotional support. The report on financial support also aligns with the finding regarding the study
participants’ recognition of parental financial sacrifice and their deep desire to honor this sacrifice.

In a dissertation regarding integration and persistence of international students at a private four-year institution Adewale (2015) found that hindrances to academic integration included language barriers and adjusting to the US system of education, while factors such as self-motivation, personal goals/goal setting, family support, friends and institutional support were factors that contributed to their persistence. These results are consistent with the findings of this study with regard to both challenges and elements that aided success and persistence. It is noteworthy that Adewale’s (2015) study was at a private institution and included participants from Asia while this study was conducted at a public research institution and no participants from Asia took part in the study. The similarity in findings might suggest that regardless of academic/institutional settings or region/country of origin, international student persistence and success may be impacted by a common set of challenges and may be enhanced by a combination of personal strengths and institutional support. This pattern may warrant further exploration in future studies.

**Unexpected Results**

A number of unexpected results arose from this study related to involvement in international student organizations, involvement in the institution’s international peer mentoring program, usage of certain university services and the impact of language barriers in social vs academic settings.

The survey data revealed that involvement in international student organizations was low as compared to non-international student organizations. This pattern seemed to be contrary to the
trend of internationals tending to seek out other international students for social support/friendships (Rajapaksa & Dundes, 2002). However, while some international students may have been involved in international student organizations, several saw value, found support in and seemed to be enriched by involvement in other student organizations, especially those that were academically or professionally related. Similarly, their involvement in international student specific programming appeared to be low, indicating that while this type of programming is provided, the students may be choosing to participate in other campus social programming that appeals to/is geared towards the general student body.

While Abe et al. (1998); Boyer and Sadlececk (1988); Lacina (2002) and Zhai (2002) indicated that a peer mentoring system is a useful intervention to assist with international student adjustment, the survey revealed low participation in the university’s I-buddy (international buddy) peer mentoring program. However, it should be noted that I-buddy is a fairly new program which was instituted at the study institution in the Spring of 2013. It is possible that many of the international students who had enrolled during the previous year may have felt that they were somewhat integrated into the country and the campus and may not have needed a peer mentoring program at that juncture of their transition experience.

It was also surprising that Orientation and the International Services Office did not feature with higher usage in the survey data regarding non-academic university support systems that contributed to success. While the literature mentions both the Orientation office (Poyrazli & Grahame, 2007; Zhai, 2002) and the International Services Office (Abe et al,1998; Lacina, 2002; Ozturgut, 2013; Wood and Kea, 2000) as important in providing support and helping with international student adjustment, it is possible that while students appreciate the services of these offices, they may perceive a more direct/tangible connection to their overall success and
persistence from other university support services/systems (such as the Writing Center, Tutoring and Career Services). Concurrent with the literature, usage of the Counseling Center was low among most survey participants (Poyrazli & Grahame, 2007; Smith & Khawaja, 2011). However, it should be noted that interview data revealed some usage of Counseling Center services, noting it as a positive/helpful experience that contributed to their success. The interview data also indicated some use of International Services Office services as contributing to their success.

Finally, while most of the study participants reported not being native English speakers, language barriers appeared to be a greater social challenge than an academic challenge. This may be due to the fact that students spend more time in social interactions outside of the classroom than in academic settings. It is also possible that students may be able to mitigate or perhaps hide their language challenges more easily in class by checking in with classmates after class or clarifying with the professor via email or during meetings/office hours. However, it was clear from some of the data that academic English did prove to be more challenging for some study participants.

**Implications for Practice**

The findings of this study have a number of implications for practice among faculty, administration, student affairs, international services and orientation practitioners.

**Family Support**

The role of family support and parental sacrifice featured as a key factor in success both in mitigating against challenges and in serving as a motivational factor for persistence and
success. This important role of international parents/families can serve as a resource for orientation, international services and student affairs practitioners. It may be prudent to ensure that parents and families are included in outreach initiatives and kept informed both during the admissions/enrollment and orientation process as well as ongoing throughout the students’ academic career. It may be useful for Parent & Family Programs staff to reach out specifically to international parents to keep them informed on campus life in order to help provide a context of what their students may be experiencing at the university.

**Implications for Faculty and Academic Services**

Faculty may want to take note of the academic challenges identified in this study as jeopardizing success and persistence, namely language barriers, adaptation to teaching styles, adjustment to the US system of education and problems with the course load. While faculty are not expected to change their classes for this population of students, it is worth being aware of these challenges that international students face and it may be helpful to keep these in mind when creating syllabi and when identifying international students who are struggling academically. Perhaps encouragement to utilize office hours if struggling or if there is anything students don’t understand in class may be useful.

Orientation practitioners may consider including a session or information on the US academic system and academic resources to further encourage international students. Academic advisors might also be critical agents in helping to explain and building awareness of the US academic system/structure and its requirements. Administration may want to consider the factors that contributed to the students’ success and persistence, especially as it relates to the key university academic support services that were utilized, namely tutoring, the writing center,
study groups and utilizing office hours. Awareness that international students are using these resources may help in tailoring some of these services, as relevant, to the unique needs of this special population. Additionally, since language barriers featured prominently across the data, ensuring continued support in the provision of ESL or academic English classes as well as conversational English programs may help more international students to overcome this academic and social challenge.

Implications for Student Affairs Practitioners

Student Affairs practitioners may want to take special note of the value study participants placed on involvement in student organizations (especially professional and academic organizations) and its role in their success formula. It may be useful to ensure involvement and student organization information is featured in international student literature, events and programming. International peer testimonials regarding the benefits of student organization involvement may be a powerful tool in continuing to recruit international students for student organizations. Not to be overlooked is the fact that international students all faced their early adjustment and transition challenges while living on campus during their first semester. The administrator interview highlighted living on campus as a major factor in persistence of international students. This factor may be worth examining for campuses that do not have a live-on requirement for FTIC students.

Implications for International Services and Student Affairs

International Services and Student Affairs may want to continue to be mindful of some of the main daily living challenges faced by international students (namely transportation, finances and job restrictions). Practitioners should consider any support services/programming that can
be created or enhanced to assist with these challenges. It is also noteworthy that in spite of the
campus bus system (which participants reported using), transportation still featured as a major
challenge across the data. It may be useful to survey international students to see what their
specific transportation needs/challenges may be and determine what might be possible in terms
of addressing these needs.

Career services practitioners may want to consider the challenges and frustrations noted
in the findings regarding job restrictions and barriers to post-graduation employment. While visa
regulations create certain inherent restrictions, it may be useful to dialogue and collaborate with
ISO to help international students to realistically face and overcome some of these barriers.
Developing partnerships/outreach with companies that are open to hiring international students
post-graduation or for internships and including the participation of those companies in career
fairs might be one possible approach.

**Implications for Orientation and First-Year Experience**

For International Services, Orientation and Student Affairs it is important to note the
finding corroborated in the literature (Lee and Wesche, 2000; McLachlan and Justice, 2009;
Schutz and Richards, 2003; Senyshyn et al., 2000) that most challenges occurred early or within
the first year of studies among the study participants. This finding underscores how critical it is
for these university divisions to continue support for transition/acculturation and to reach out and
identify students who are struggling with adjustment issues (both personal and academic).
Continued information regarding university support resources and encouraging involvement in
various aspects of campus life is also important in supporting international students.
Limitations

As with all research, there were some limitations to this study. No transfer international students were included in this study. By excluding transfers from this study, it was hoped that a more homogenous experience restricted to only the study institution would be achieved (transfer students may have had a different experience transitioning to the US and may have had varying levels of support and types of resources at their previous institutions).

No exit data from those international students who withdrew was available for inclusion in this study. Similarly, exit survey reports of graduating undergraduate students were not accessible. It is possible that data from these reports may have further contributed to data triangulation.

Due to the volunteer sample, there was no control over the distribution of participants. The survey participants were predominantly female. Also, there was not much regional diversity among the study participants (who were mainly from the Western Hemisphere, namely Latin America and the Caribbean). Notably, there were no participants from Asian countries and very few from European countries. This is significant for two reasons: the majority of international undergraduate students at the study institution are currently from China, Columbia, India, Jamaica and Venezuela (University XYZ, Infocenter, 2016). However, at the time when most of the study participants enrolled (in Fall 2012), the largest numbers of students were from Columbia, Haiti, Canada, Cuba and Venezuela (University XYZ, Infocenter, 2016). Additionally, the largest numbers of international students studying in the USA are from China, India, South Korea and Saudi Arabia (Open Door, 2015). In this way, it could be construed that the sample population wasn’t regionally representative.
**Recommendations for Future Research**

There are a number of possibilities for future research related to this study. This may include a study combining transfer and FTIC internationals or studying transfer internationals separately to see if challenges, experiences, attitudes to change and coping strategies are similar. Perhaps a study on populations based on regions (such as Asia, Europe, the Caribbean, Latin American, etc.) could be conducted and compared to see if there are any major differences in their challenges, as well as their persistence and success formula.

Future research could also consider the following approaches. Conduct the study in a different academic/institutional setting (eg. rural vs urban, small vs large student body, private vs public institution) to see if challenges, persistence and success vary. Conduct a comparison study to see how international student challenges, coping, persistence and success might compare with domestic student challenges, coping, persistence and success. Perhaps conduct a study with undergraduate students in special or conditional admission programs - such as INTO University Partnerships’ Pathway program, Kaplan’s Global Pathway program and Study Group’s Pathway program (Redden, 2013) - who continue enrollment in the institution, and other undergraduate international students to compare their transition experiences, challenges, coping and persistence. Note that there are often some differences with the on-boarding of special admission program students compared to traditional international students.

Conduct a similar study at one or a few peer institutions (large, research, public) to see if the experiences, perspectives and findings are unique to this study institution or are more universal. Finally, a similar study could be conducted with international graduate students to see what challenges they face and their perception of the impact on their persistence and success.
Concluding Remarks

This study illuminates some of the challenges outlined in the literature regarding international student transition and adjustment. It also further examines coping mechanisms and strategies used to respond to these challenges. The findings provide a window into the students’ lived experience and their perceptions regarding both the challenges that could impede their success and the strategies, systems and programming that enhanced their success and helped them to overcome challenges. Most importantly it provided some enlightening insight into the study participants’ persistence and success model which combined both personal strengths and support systems to mitigate against academic, cultural, social and daily living challenges.
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[http://dx.doi.org/10.4135/9781452274645](http://dx.doi.org/10.4135/9781452274645)


Appendices
Appendix I: Informational Questionnaire

1. What academic support programming, academic system or factors have contributed to your persistence and success? *(Please check all that apply).*
   - Tutoring
   - ESL Classes
   - Conversational English Classes
   - Study Groups
   - Meetings with Professors
   - Academic Advising
   - Other *(Please list or describe).*

2. What personal academic coping strategies have contributed to your persistence and success? *(Please check all that apply).*
   - Time Management Skills
   - Study Habits
   - Personal Academic Goal Setting (e.g. maintaining a certain GPA)
   - Other *(Please list or describe).*

3. What non-academic support programming, systems or factors contributed to your persistence and success? *(Please check all that apply).*
   - Orientation
   - International Services Office
   - Involvement in international student organizations
   - Involvement in other student organizations
   - Involvement in Greek Life (Fraternity or Sorority)
   - International Student programming (social events, etc.)
   - I-buddy program
   - Friends of Internationals
   - Living-learning community in campus residence hall
   - Leadership opportunities
   - Counseling Center services
   - Career Center services
   - Scholarships
   - Working on campus
   - General campus programming/events
   - Involvement with faith-based/religious groups (on or off campus)
4. What personal coping factors contributed to your persistence and success? *(Please check all that apply).*
   - Family support
   - Support/friendships with other international students
   - Support/friendships with domestic students
   - Other *(Please list or describe).* ________________________________________

5. What academic challenges have you dealt with/overcome?
   - English proficiency
   - Low GPA/grades
   - Advising issues
   - Interaction with faculty
   - Teaching styles
   - University’s academic expectations
   - Needing tutoring
   - Needing remedial English classes
   - Course load/assignments
   - Other *(Please list or describe).* ________________________________________

6. What social/cultural challenges have you faced?
   - Making friends
   - Language barriers
   - American cultural rules
   - Getting involved in campus life (student organizations, social events)
   - Homesickness
   - Isolation
   - Discrimination
   - Cultural misunderstandings
   - Other *(Please list or describe).* ________________________________________

7. What daily living challenges have you experienced?
8. Are there any factors that have interfered with your success in college or delayed your graduation plans?
____________________________________________________________________
____________________________________________________________________

9. Did you ever consider not completing your studies (withdrawing/dropping out)? (Please explain why or why not).
____________________________________________________________________
____________________________________________________________________

10. What advice would you give to other international students about how to overcome transition challenges and be successful in college? ___________________________
____________________________________________________________________
____________________________________________________________________

11. What would you recommend to this university to help international students overcome transition challenges and be successful in college? __________________________
____________________________________________________________________
____________________________________________________________________

12. When did you begin studies at this university?
   o Fall 2011
   o Spring 2012
   o Summer 2012
   o Fall 2012
13. When will you graduate from this university?
   - Spring 2013
   - Other (please specify)

14. What is your major? ___________________________________________________

15. What is your college within the university?
   - College of the Arts
   - College of Arts & Sciences
   - College of Behavioral & Community Sciences
   - Muma College of Business
   - College of Education
   - College of Engineering
   - College of Global Sustainability
   - Honors College
   - College of Medicine
   - College of Nursing
   - College of Pharmacy
   - College of Public Health
   - Other (please specify)

16. What is your current GPA? ______________________________________________

17. Is English your first language?
   - Yes
   - No

18. What is your age?
   - 18-20 years old
   - 21-23 years old
   - 24-26 years old
19. What is your gender?
   o Female
   o Male

20. What is your country of origin/citizenship?

21. Thanks so much for taking the time to complete this survey! If you wish to participate in
    the interview phase of this study, please provide your name and contact information
    below. (The individual interview will take approximately 60 to 90 minutes).

    Name ____________________________________________
    Email address ______________________________________
    Phone number _______________________________________

22. Thanks so much for taking the time to complete this survey! Please provide a valid
    campus email address in order to receive your $5 Starbucks gift card. (The gift card will
    be sent to you via email).

    Email address ________________________________
Appendix II: Interview Questions (for student participants)

Introduction:

Thank you for agreeing to participate in this research study on international student success and persistence. The interview will take approximately 60-90 minutes, and will be audio-recorded.

The interview questions will be more in-depth than the questionnaire you previously completed online and they will focus on exploring your transition experience as a new international student, challenges you faced and how you overcame them and what has helped you to be successful in college.

Your identity will not be revealed in the study report. Details about the study, confidentiality, etc. are outlined on this informed consent form. Please take some time now to read through the form and sign it if you are willing to participate in this interview. Provide informed consent form and adequate time to read it....

Before we get started with the interview, do you have any questions?

Ok, I’m going to turn on the recorder and we’ll get started. Begin the interview...

1. What academic challenges have you faced during your undergraduate studies?
2a. What were your greatest academic challenges?
2b. Did these challenges occur early during your studies or closer to the end of your studies?
3. How have you been impacted by these academic challenges?
4. What have you done when you have encountered academic problems or challenges as an undergraduate student?
5. Was there ever a time you felt like dropping out of or withdrawing from college? What were the circumstances and how did you deal with them?
6a. Can you describe any of the university’s academic programs which you used as an undergraduate student to help with your academic progress?
6b. Are there any others that you used?
7a. Can you describe a social support system and how it contributed to your academic success?
7b. Are there any other forms of social support that you can describe which helped you
Can you share an example of any social challenge which has created difficulties related to your studies?

What other social challenges did you experience?

Are there any cultural challenges that you can describe which you have encountered related to your experience as an undergraduate student?

Are there any other cultural challenges?

Can you describe any daily living challenges which have created difficulties related to your academic studies?

Are there any other daily living challenges that you encountered?

Regarding daily living issues, how have you dealt with challenges in that area?

Can you provide examples of university support services or programming (e.g. social, financial, immigration) and how it contributed to your success and persistence as an undergraduate student?

Are there examples of any other kinds of support systems (e.g. family) or personal coping skills which contributed to your success and persistence as an undergraduate student?

What do you feel has been the single most important factor that has contributed to your success and persistence and why? (e.g. academic, social/other university programming and services, personal or family)

Conclusion & Wrap-Up:

This is the end of the interview. Thanks so much for your participation and for sharing your experiences and perspectives.

I will be following up with you via email within the next couple months to provide an opportunity for you to confirm if I have accurately interpreted and described the experiences and reflections you shared in the interview.

Is this the best email at which to reach you then?

Please feel free to contact me via email if you have any questions.

Thanks again and enjoy the rest of your day!
Appendix III: Informant Interview Questions (for university administrator)

Introduction:

Thank you for agreeing to participate in this research study on international student success and persistence. It is very important to provide a context for the study regarding the services and programming that was available to undergraduate international students when they first enrolled at this university.

The interview will take approximately 60 minutes, and will be audio-recorded. Your name will not be revealed in the study report. Details about the study, confidentiality, etc. are outlined on this informed consent form. Please take some time now to read through the form and sign it if you are willing to participate in this interview. Provide informed consent form and adequate time to read it....

Before we get started with the interview, do you have any questions?

Ok, I’m going to turn on the recorder and we’ll get started. Begin the interview...

1a. Can you give me an idea of approximately how many international undergraduate students were first time in college in 2010 or 2011?
1b. How does that compare to current enrollment numbers?

2. What was the approach of the International Services office in terms of the level of support offered to international students approximately 4 years ago?

3. What were some of the general services offered by the International Services office approximately 4 years ago?

4. What type of programming was offered for international students at that time?

5. Can you describe some of the differences in the International Services office’s services, programming and level of support now compared with those offered approximately 4 years ago?

6. How has international student enrollment growth at the university informed current institutional support for international students?

7. Can you share some of the general reasons international students do not persist here at this university?

8. What trends have you noticed with international undergraduate retention over the past 4 years at this university? Have retention numbers generally remained stable,
increased or declined?

9a. What would you describe as some of the main needs or challenges faced by international undergraduate students at this university?
9b. Would you say those needs tend to change over time (eg. more challenges or needs during the first year of study) or are there ongoing challenges?

10. How important is institutional support for international student success and retention?

Conclusion & Wrap-Up:

This is the end of the interview. Thanks so much for taking the time to meet with me and for sharing your perspectives.

I may need to follow up with you if I clarify any of the information you have shared – would that be okay with you?

Is this the best email at which to reach you?

Please feel free to contact me via email if you have any questions also.

Thanks again and enjoy the rest of your day!
Appendix IV: Email Invitation to Participants for Survey Research

Hello,

My name is Laurie-Ann Spencer and I am a doctoral candidate in the College of Education here at USF. For my dissertation, I am conducting a survey on the experiences of undergraduate international students as it relates to their persistence and success in their university studies. This study is being conducted under the supervision of my major professor, Dr. Kathleen P. King.

You are invited to participate in this study if you meet the following requirements:

- International undergraduate student at USF (on an F-1 student visa)
- Final year of study (will be graduating in either May 2015 or August 2015)
- Have been enrolled at USF since freshman year (did not transfer from another college or university)

If you volunteer to participate in this study, you will be asked questions related to your transition experience and what factors have helped you to be successful in college. Completion of the survey should take approximately 15 minutes. If you wish to participate in the interview phase of this study, please provide your contact information after completing the survey. You will be contacted if selected for the interview. Please use this link to complete the online survey:

[Insert Survey Monkey link]

You may not get any benefit from participating in the study but your responses will help us to better understand the factors that contribute to international student success and persistence.

Participation in this study is voluntary. You can withdraw and stop participating in the study at any time. You will not be penalized in any way if you withdraw and no longer wish to participate in the study. There are no major anticipated risks from participating in this study.

All information that you provide will be confidential. No identifying information will be included in the study report. Once the study is complete, all IP addresses will be deleted and interview recordings will be erased after five years. The results of this study will appear in an electronic database in the Library and may be presented at professional conferences or seminars or published in a journal, however, your identity will remain completely confidential.

If you have any questions about this study please contact me at spencerl@mail.usf.edu. This research has been approved by the USF Institutional Review Board (IRB # 21182).

Thank you for your time!

Best Regards,

Laurie-Ann Spencer
Appendix V: Email Invitation to Student Participants Selected for Interviews

Hello,

Thank you for being willing to participate in this study on international student persistence and success in their university studies. This is to inform you that you have been selected for the interview phase of this study.

You are invited to participate in a 60 to 90 minute individual, face-to-face interview with me to further discuss your transition experience as you came to the U.S. to study and the factors that have helped you to be successful in your studies. Interviews will take place on campus in the John and Grace Allen building (ALN).

Using the link below, please select the dates and times when you would possibly be available to meet for an interview: (select all that apply)

[insert doodle poll link]

I will follow-up with you by sending a confirmation email with the interview date, time and venue.

Participation in this study/interview is voluntary. You can withdraw and stop participating in the study at any time. You will not be penalized in any way if you withdraw and no longer wish to participate in the study. There are no major anticipated risks from participating in this study.

All information that you provide will be confidential. No identifying information will be included in the study report. Interviews will be audio-taped and all recordings will be erased after completion of the study and in accordance with Institutional Review Board regulations. The results of this study will appear in an electronic database in the Library and may be presented at professional conferences or seminars or published in a journal, however, your identity will remain completely confidential.

If you have questions about this study, please contact me at spencerl@mail.usf.edu. This research has been approved by the USF Institutional Review Board (IRB#21182).

Thanks for your time!

Best Regards,

Laurie-Ann Spencer
Appendix VI: Informed Consent for the Interviews

Informed Consent to Participate in Research Involving Minimal Risk
Information to Consider Before Taking Part in this Research Study

IRB Study # 21182

You are being asked to take part in a research study. Research studies include only people who choose
to take part. This document is called an informed consent form. Please read this information carefully
and take your time making your decision. Ask the researcher or study staff to discuss this consent form
with you, please ask him/her to explain any words or information you do not clearly understand. We
encourage you to talk with your family and friends before you decide to take part in this research study.
The nature of the study, risks, inconveniences, discomforts, and other important information about the
study are listed below.

We are asking you to take part in a research study called:
Exploring the Transition Experiences of Successful International Undergraduate Students at a Public
Research University in the USA: The Impact on International Student Success and Retention

The person who is in charge of this research study is Laurie-Ann Spencer. This person is called the
Principal Investigator. However, other research staff may be involved and can act on behalf of the
person in charge. She is being guided in this research by Dr. Kathleen P. King.

The research will be conducted at The University of South Florida.

Purpose of the study
The purpose of this study is to:

• Explore the transition experiences of successful international undergraduate students and
discover the impact on persistence and success. Your experience will provide valuable insight
into factors that impact persistence and success.
• This study is being conducted for a dissertation and will be conducted by a student.
Why are you being asked to take part?
You are being asked to take part in this research study because you are a final-year international undergraduate student. OR you are an administrator with direct knowledge of international student services and programming offered at this institution over the past four years.

Study Procedures: What will happen during this study?
If you take part in this study, you will be asked to:

- Complete a 60-90 minute individual, face-to-face interview with the principal investigator.
- It is possible that persons interviewed may be contacted via phone or email later in the study (within 3 months of the interview) for follow-up to clarify responses and ensure that their responses are accurately reported.
- This study will be conducted on the campus of the University of South Florida during the Spring 2015 and Summer 2015 semesters.
- Interviews will be audio-taped. Participants will be informed of audio-taping prior to the start of each interview and will be provided with an informed consent form explaining the procedure and requesting their written permission to audio record the interview. Only the principal investigator will have access to these tapes. No identifying information will be reported or published. The audiotapes will be kept for the duration of the study and data analysis and will be erased 5 years after completion of the study (per Institutional Review Board requirements) to preserve privacy and confidentiality.

Total Number of Participants
Approximately 81 individuals will be invited to take part in this study at USF.

Alternatives / Voluntary Participation / Withdrawal
You do not have to participate in this research study.

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. Decision to participate or not to participate will not affect your student status or job status.

Benefits
You will receive no benefit(s) by participating in this research study.
Risks or Discomfort
This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. The main potential risk may be a breach of confidentiality. There are no known additional risks to those who take part in this study.

Compensation
You will receive no payment or other compensation for taking part in this study.

Privacy and Confidentiality
We will keep your study records private and confidential. Certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential. The only people who will be allowed to see these records are:

- The research team, including the Principal Investigator and study advisor.
- Certain government and university people who need to know more about the study. For example, individuals who provide oversight on this study may need to look at your records. This is done to make sure that we are doing the study in the right way. They also need to make sure that we are protecting your rights and your safety.
- Any agency of the federal, state, or local government that regulates this research. This includes the Department of Health and Human Services (DHHS) and the Office for Human Research Protection (OHRP).
- The USF Institutional Review Board (IRB) and its related staff who have oversight responsibilities for this study, staff in the USF Office of Research and Innovation, USF Division of Research Integrity and Compliance, and other USF offices who oversee this research.

We may publish what we learn from this study. If we do, we will not include your name. We will not publish anything that would let people know who you are.

You can get the answers to your questions, concerns, or complaints
If you have any questions, concerns or complaints about this study, or experience an unanticipated problem, call Laurie-Ann Spencer at 813-974-2141.

If you have questions about your rights as a participant in this study, general questions, or have complaints, concerns or issues you want to discuss with someone outside the research, call the USF IRB at (813) 974-5638.
Consent to Take Part in this Research Study

It is up to you to decide whether you want to take part in this study. If you want to take part, please sign the form, if the following statements are true.

I freely give my consent to take part in this study. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

______________________________ ______________________________
Signature of Person Taking Part in Study Date

Printed Name of Person Taking Part in Study

Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect from their participation. I hereby certify that when this person signs this form, to the best of my knowledge, he/ she understands:

- What the study is about;
- What procedures will be used;
- What the potential benefits might be; and
- What the known risks might be.

I can confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in the appropriate language. Additionally, this subject reads well enough to understand this document or, if not, this person is able to hear and understand when the form is read to him or her. This subject does not have a medical/psychological problem that would compromise comprehension and therefore make it hard to understand what is being explained and can, therefore, give legally effective informed consent.

______________________________ ______________________________
Signature of Person obtaining Informed Consent Date

Printed Name of Person Obtaining Informed Consent
Appendix VII: Informed Consent for the Online Survey

INFORMED CONSENT TO PARTICIPATE IN RESEARCH
Information to Consider Before Taking Part in this Research Study

IRB Study # 21182

Researchers at the University of South Florida (USF) study many topics. To do this, we need the help of people who agree to take part in a research study. This form tells you about this research study. We are asking you to take part in a research study that is called: Exploring the Transition Experiences of Successful International Undergraduate Students at a Public Research University in the USA: The Impact on International Student Success and Retention

The person who is in charge of this research study is Laurie-Ann Spencer. This person is called the Principal Investigator.

PURPOSE OF THE STUDY
You are being asked to participate because you are a final-year international undergraduate student. The purpose of this study is to explore the transition experiences of successful international undergraduate students and discover the impact on their persistence and success. Your experience will provide valuable insight into factors that impact persistence and success in college. This study is being conducted for a dissertation and will be conducted by a student.

STUDY PROCEDURES
If you take part in this study, you will be asked to:

• Complete a 10-15 minute survey online (via Survey Monkey) with questions relating to factors that impacted your persistence and success as a student at the university.
• Data from the online survey will be collected anonymously. IP/email addresses will not be retained as part of the study data. However, at the end of the survey you will be invited to participate in the interview phase of the study. If you choose to participate, you will be asked to provide your name and contact information for follow-up.
• No identifying information will be reported or published.
• Please see information below on Survey Monkey’s Privacy Policies:

IF YOU ANSWER SURVEYS:

• Surveys are administered by survey creators. Survey creators conduct tens of thousands of surveys each day using our services. We host the surveys on our websites and collect the responses that you submit to the survey creator. If you have any questions about a survey you are taking, please contact the survey creator directly as SurveyMonkey is not responsible for the content of that survey or your responses to it. The survey creator is usually the same person that invited you to take the survey and sometimes they have their own privacy policy.

• Are your responses anonymous? This depends on how the survey creator has configured the survey. Contact them to find out, or click here to read more about respondent anonymity.

• We don’t sell your responses to third parties. SurveyMonkey doesn’t sell or share your survey responses with third party advertisers or marketers (although the survey creator might, so check with them). SurveyMonkey merely acts as a custodian on behalf of the survey creator who controls your data, except as further described in this privacy policy with regard to public surveys.

• If you think a survey violates our Terms of Use or may be engaging in illegal activity, click here to report it.
**Privacy for Survey Respondents**

**Questions?** For questions regarding our privacy policy or practices, contact SurveyMonkey by mail at 101 Lytton Avenue, Palo Alto, CA 94301, USA, or electronically through this form. You may contact TRUSTe if feel your question has not been satisfactorily addressed.

**ALTERNATIVES/VOLUNTARY PARTICIPATION/WITHDRAWAL**

You have the alternative to choose not to participate in this research study.

You should only take part in this study if you want to volunteer; you are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. Your decision to participate or not to participate will not affect your student status.

**BENEFITS and RISKS**

You will receive no benefit from this study. This research is considered to be minimal risk.

**COMPENSATION**

We will not pay you for the time you volunteer while being in this study.

**PRIVACY & CONFIDENTIALITY**

We must keep your study records as confidential as possible. It is possible, although unlikely, that unauthorized individuals could gain access to your responses because you are responding online. However, certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential. The only people who will be allowed to see these records are: the Principal Investigator and the advising professor and The University of South Florida Institutional Review Board (IRB).

- It is possible, although unlikely, that unauthorized individuals could gain access to your responses. Confidentiality will be maintained to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet. However, your participation in this online survey involves risks similar to a person’s everyday use of the Internet. If you complete and submit an anonymous survey and later request your data be withdrawn, this may or may not be possible as the researcher may be unable to extract anonymous data from the database.

**CONTACT INFORMATION**

If you have any questions about your rights as a research participant, please contact the USF IRB at 974-5638. If you have questions regarding the research, please contact the Principal Investigator at 813-974-2141.

We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are. You can print a copy of this consent form for your records.

I freely give my consent to take part in this study. I understand that by proceeding with this survey that I am agreeing to take part in research and I am 18 years of age or older.

[insert Survey Monkey link]