

ABSTRACT

Nurah Abdullah Al-Dayel, **THE ACADEMIC AND SOCIAL INTEGRATION OF SAUDI INTERNATIONAL STUDENTS IN THE U.S. HIGHER EDUCATION INSTITUTIONS** (Under the direction of Dr. Crystal Chambers) Department of Educational Leadership, October 2018.

The purpose of this research study was to examine the factors that affect the social and academic integration of Saudi Arabian international students in U.S. higher education institutions. Tinto's student departure model was used to explain the personal, psychological, engagement, university, faculty, and financial factors that could predict Saudi Arabian students' persistence propensity. The researcher sought to illustrate the relationship between these factors and students' persistence propensity, as well as the statistically significant differences in these factors based on demographic factors.

Participants were Saudi Arabian students enrolled in U.S. institutions during the fall semester of the 2018-2019 academic year. The researcher collected data through an online survey questionnaire that included close-ended and open-ended questions. The researcher used SPSS and coding to analyze the data and to answer research questions.

Findings indicate that factors found in Tinto's student departure model could predict students' persistence propensity and explained their academic and social integration, with the most impactful factors being personal, university services, and faculty interaction. Findings also indicate that students' persistence and integration are affected differently based on demographic factors. Specifically, personal factors were more likely to predict the persistence of graduate students and students working part-time; male and single students were more likely to engage in on-campus and off-campus activities; and graduate students, 36 years old or older, and those with more than three children were more satisfied with faculty support. The findings of this research provide important practical and theoretical implications for preparing and supporting

Saudi Arabian students as well as international students prior to and during their study abroad experiences.

THE ACADEMIC AND SOCIAL INTEGRATION OF SAUDI INTERNATIONAL
STUDENTS IN THE U.S. HIGHER EDUCATION INSTITUTIONS

A Dissertation

Presented to

The Faculty of the Department of Educational Leadership

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of the Requirements for the Degree

Doctor of Education in Educational Leadership

by

Nurah Abdullah Al-Dayel

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DEDICATION

To my Parents, Abdulla & Aishah, the greatest teachers in my life who taught me how to connect with Allah and how to be strong and positive in all circumstances. I have had their prayers, support, and encouragement by my side for all my life.

To my Grandmother, Fatimah, the beloved and tolerant woman who taught me how a Muslim should be. She passed away during my study, but her positivity impacts me every day of my life.

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CHAPTER I: INTRODUCTION

The number of international students entering the universities in the United States has increased over the last several years. According to the Open Doors Report (2017) conducted by the Institute of International Education (IIE), there were 1,078,822 international students in United States colleges and universities for the academic year 2016-2017 (IIE, 2018). That number represents a growth of 3.4% within the past couple of years and is the highest number of international students since 1978-1979. Table 1 provides the National Center for Education Statistics (NCES) count of international students, pegging combined graduate and undergraduate enrollments at 840,300 in 2013, a figure that has nearly quadrupled since 1976. The U.S. Department of Commerce indicates that the increase of international students who are studying in U.S. colleges and universities positively impacts the U.S. economy: \$39.4 billion in 2016. This funding comes from student families, foreign governments, foreign private sponsors, and international organizations (NAFSA International Student Economic Value Tool, 2017).

The Institute of International Education Enrollment Survey of international students for Fall 2015 indicates that scholarship programs supported by foreign countries are of great importance for international students as well as U.S. institutions (IIE, 2017). For example, in Saudi Arabia, as part of its 2030 Vision, the Saudi government seeks to increase the number of Saudi citizens with a variety of knowledge, skills, and abilities to diversify the Saudi economy and reduce its dependence on oil exports (vision2030, 2018). Through the King Abdullah Scholarship Program (KASP), more than 100,000 Saudi students have studied abroad to gain marketable skills and help diversify the Saudi economy (Ministry of Education, 2017). KASP is sponsored by Saudi Arabia Cultural Mission (SACM), a Saudi governmental agency and is one of the largest international scholarship programs with 84% of all international scholarship

Table 1

Total Fall Enrollment in Degree-Granting Postsecondary Institutions, by Level of Enrollment, Sex and Attendance Status of Nonresident Alien Student: Selected Years, 1976 through 2013

	Fall enrollment (on thousands)										
	1976	1980	1990	2000	2005	2008	2009	2010	2011	2012	2013
Undergraduate, Total	143.2	209.9	218.7	288.0	314.7	360.3	376.5	398.4	422.6	450.5	483.4
Male	96.4	139.8	126.1	150.2	151.8	177.7	188.3	201.5	217.7	237.1	258.4
Female	46.8	70.1	92.6	137.8	162.9	182.6	188.2	196.9	204.9	213.3	225.0
Post baccalaureate, Total	75.5	95.1	172.7	240.7	270.1	300.3	305.7	309.3	317.9	332.4	356.9
Male	57.7	71.0	120.2	147.1	157.7	175.5	177.4	178.2	181.4	187.5	201.7
Female	17.8	24.1	52.5	93.6	112.4	124.8	128.3	131.1	136.5	144.9	155.2
Full-time	160.0	234.4	289.6	410.0	459.4	522.3	539.6	565.2	598.2	641.4	695.3
Part-time	58.7	70.6	101.8	118.7	125.5	138.3	142.6	142.5	142.3	141.5	145.0

Note. U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Fall Enrollment in Colleges and Universities" surveys, 1976 and 1980; Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment Survey" (IPEDS-EF:90); and IPEDS Spring 2001 through Spring 2014, Enrollment component. Retrieved from https://nces.ed.gov/programs/digest/d14/tables/dt14_306.10.asp

students in the United States (IIE center for Academic Mobility Research& Impact, 2015). The KASP program began in 2005, and by Fall 2015, there were about 600,000 Saudi students enrolled in the U.S. institutions (personal contact with SACM, 2016). Given the symbiotic gains between U.S. institutions and Saudi economic diversification, the purpose of this study is to examine the indicators of persistence among Saudi students in the United States. In particular, using Tinto's Theory of Student Departure (1993), the study seeks to examine the academic and the social integration of Saudi students under the King Abdullah Scholarship Program (KASP) and explores factors that influence persistence in the U.S. universities.

Significance of the Study

International students contribute to building diversity in U.S. university campuses as well as bringing economic benefits to the country. According to IIE, Saudi international students ranked among the most populous of international students in third place in 2016 with 61,287 students enrolled and in fourth place in 2017 with 52,611 students enrolled in U.S. universities (see Table 2).

Concomitantly, there are several factors which may inhibit Saudi student persistence in U.S. universities. In the wake of the 2016 U.S. presidential election, students of Muslim origin may now feel ill at ease amid national discussions of Muslim bans and extreme vetting. Beyond these discussions, the number of hate crimes in the U.S. escalated in the election's wake, many against Muslims, immigrants, and those perceived to be outsiders (Aljazeera, 2016; Lichtbau, 2016).

Beyond fears of violence, international students, Muslim students, generally stand out especially within predominantly white campus environments. Cultural distinctions hallmarked

Table 2

Top 4 Places of Origin of International Students, 2015/16 - 2016/17

R	Place of Origin	2015/16	2016/17	% Of Total	% Change
	WORLD TOTAL	1,043,839	1,078,822	100.0	3.4
1	China	328,547	350,755	32.5	6.8
2	India	165,918	186,267	17.3	12.3
3	South Korea	61,007	58,663	5.4	-3.8
4	Saudi Arabia	61,287	52,611	4.9	-14.2

Note. Institute of International Education (2017). Retrieved from <https://www.iie.org/Research-and-Insights/Open-Doors/Data/International-Students/Places-of-Origin>

by physical appearance, clothing, and accents, often create segregation between international students and domestic students as well as faculty (Yan, Sgueglia, & Walker, 2016). On campuses, there are many discussions on how to help international students feel comfortable in their new environment and how to facilitate integration so that students can get the most from their higher education experience in the United States. However, there is a lack of research on the experience of Saudi students, their persistence in the U.S. institutions, and their ability to integrate academically and socially.

Saudi Arabian students were selected as the population of interest given Saudi Arabia's high ranking among countries of origin for international students, especially Muslim students. The aim of this study is to address the gap in research by understanding the experience of international Saudi students in U.S. higher education. The findings of this study will provide stakeholders in the United States vital information to help enhance programs for international students and have a positive impact on international student retention as well as social and academic integration. It may also open the door for future studies that relate to international students and their general academic/social preparation before they arrive to the United States.

This study is also significant for Saudi international students who want to achieve their goals from studying abroad, seek their academic development, and receive their degrees at U.S. universities. It will also benefit the Saudi nation, as the King Abdullah Scholarship program continues to fund scholarships with an aim of developing the program such as employing students before they enroll (Ministry of Education, 2017).

Conceptual Framework

The conceptual framework that will use in this study is Tinto's Model of Student Departure (1993) (see Figure 1). This model was used to understand Saudi students' academic

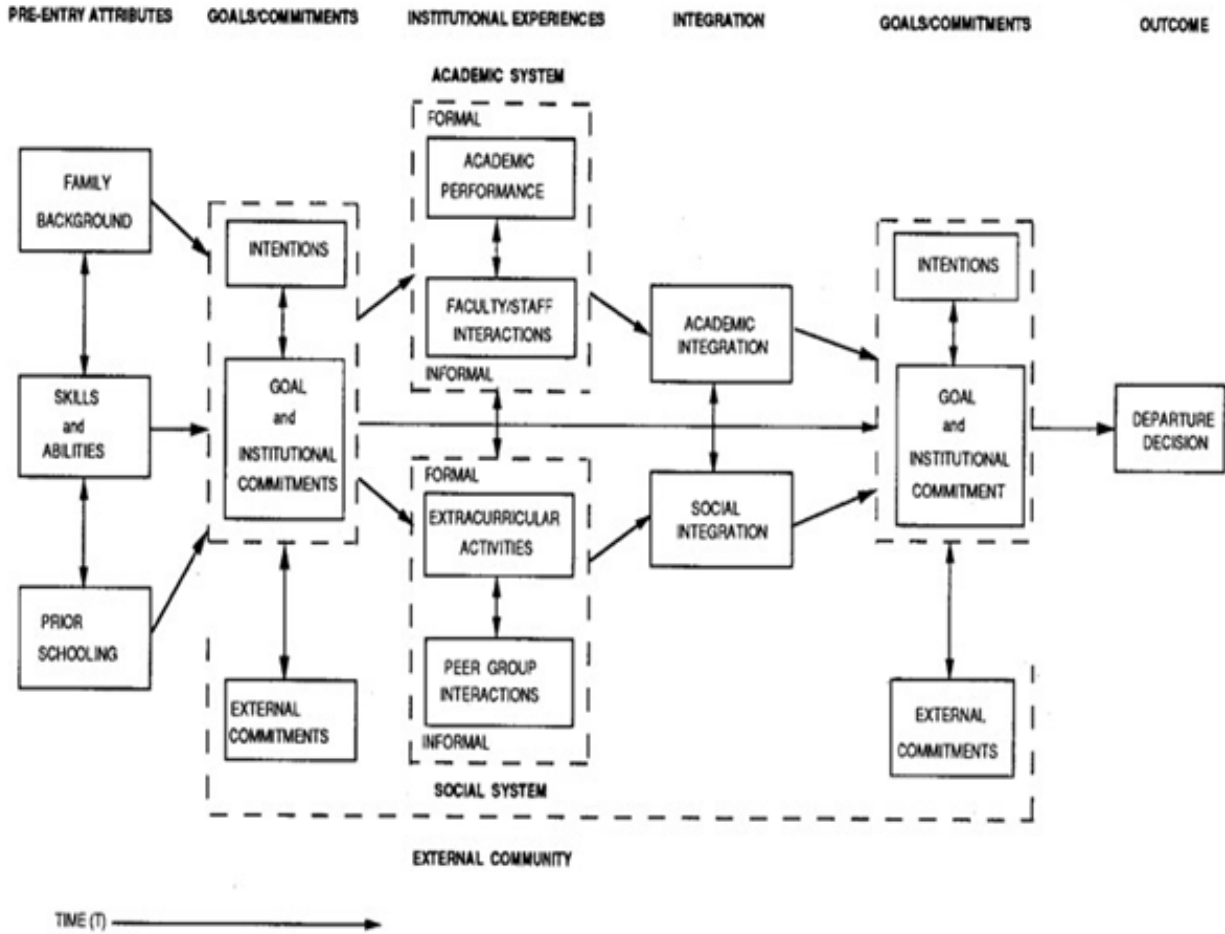


Figure 1. A longitudinal model of institutional departure.

and social integration and how these factors influences their experiences as well as their decisions to stay in or leave the United States. According to the model, beyond background characteristics and pre-collegiate academic experiences, the factors that influence international students' persistence relate to the institutional environment (e.g., campus services, classroom environment, and teaching methods) and personal characteristics of the student (e.g., goals, future vision, self-motivation, and self-pride). Tinto connects student departure decisions to what is going on in the institution, which Tinto called *institutional experiences*. Institutional experiences in this model include the formal interactions between students and faculty members (in the classroom) or informal encounters (outside of the classroom), as well as students' interactions within their peer groups. If students are satisfied with their institutional experiences, they are more likely to integrate socially and academically in their institution. Academic and social integration contributes to reshaping students' goals and commitments positively and leads them to persist. On the other hand, if students are not satisfied with their institutional experiences, they will not successfully integrate and consequently will depart (Tinto, 1993).

A significant part of the institutional support for domestic students is financial aid (DesJardins, Ahlburg, & McCall, 2002; Stewart, Lim, & Kim, 2015; Tinto, 2006). While for international students, financial support is not an institutional concern, it can still be a significant challenge. Much research has indicated that financial issues such as the high cost of university tuition, health insurance, and transportation strongly influence an international student's decision to enroll and stay enrolled (IIE, 2016; Yan & Berliner, 2013). However, Saudi scholarship recipients who are supported by KASP are less likely to experience such financial challenges. For example, the recipients and their family members, such as spouse, children, and parents,

receive a monthly salary, full university tuition coverage, health insurance, funding for scientific trips and conferences, and annual airline tickets to return home (SACM, 2016).

This research seeks to answer why some Saudi scholarship students leave the U.S. universities and why others stay. The research is focusing on Saudi scholarship students because they represent many different groups of students such as Saudi students, scholarship students, and Muslim students who study at U.S. universities. In addition, with financial issues largely attended by the government, this research can discover other issues impacting students persistent.

Research Questions

The aim of this research is to address the three main questions. An overview of the instrumentation, data collection, and data analysis are presented below. A more detailed methodological description is provided in Chapter 3, with survey questions attached in Appendix C.

RQ1: What is the nature of academic and social integration of Saudi students in the United States? The purpose of this question is to generally assess the overall academic integration and social integration of Saudi students in the United States. This question will be answered using descriptive statistics generated from the survey employed to assess student academic and social integration. Statistics will be generated for each question, and then vectors for academic integration and social integration will be created. Responses to open-ended questions will help garner an understanding of academic and social experiences contributing to Saudi student academic and social integration. As this question is generally exploratory, null hypotheses are not necessary.

RQ2: To what extent do academic and social integration factors explain persistence propensity among Saudi students in the United States? This study is designed to provide a cross-

sectional analysis of Saudi student academic and social integration in the United States. As such, examination of an actual persistence of current Saudi students over time is beyond the scope of the present study. The propensity of Saudi students to persist will be examined utilizing student response to the question of whether s/he believes s/he will complete his/ her degree. Linear regression analysis was used to determine whether academic and social integration indicators predict student propensity to persist.

H_0 RQ2: Academic and social integration factors do not explain persistence propensity among Saudi students in the United States.

RQ3: Are there statistically significant differences in the academic and social integration of Saudi students in the United States. based on their background (gender, age, marital status, number of children, and income), academic status (scholarship status, academic level, major, attending university, and first generation in the scholarship program), and institutional factors (working on campus and working hours)? ANOVA will be utilized to separately analyze the influence of these factors on student academic integration and student social integration.

H_0 RQ3: There is no statistically significant difference in the academic or social integration of Saudi students by student background, academic status, or institutional factors. *F*-scores are analyzed for statistical significance at $p \leq 0.05$.

Overview of Research Design

The study, employed an online survey research method combining both close-ended and open-ended survey questions. Participants for the study included Saudi Arabian students enrolled in academic programs in the U.S. higher education system during the fall of 2018. The researcher contacted the Saudi Arabian Cultural Mission (SACM) to get permission to post the survey on SACM official accounts of Facebook and Twitter.

Instrumentation

Survey questions were adopted from a dissertation research study that was conducted by Abdul Aziz Aldossari (2016). The study focused on factors contributing to college retention of undergraduate Saudi students studying in the United States. The six scales (personal, psychological, engagement, university, faculty, and financial) used in the study were developed based on the findings of previous studies focused on factors affecting the integration of international students studying abroad. For each scale, participants are asked to indicate their level of agreement to statements using a 5-point Likert Scale from strongly disagree (1) to strongly agree (5).

Open-ended questions were added to the survey to further understand the factors affecting Saudi students' persistence propensity. For each scale, participants were asked to add additional details using their own words. Examples of the questions are "In your opinion, what are the most personal factors that help or prevent you from completing your study in the United States? Explain why." and "How do you engage on-campus academically? And how do you engage on and off-campus socially? Does your academic and/or social engagement affect your academic progress? How? What could help you to improve your engagement academically? Socially?"

A fuller discussion of survey construction and validation will be provided in Chapter 3. Data collection will be facilitated using Qualtrics software tool.

Data Analysis

First, the researcher will analyze quantitative results using basic descriptive statistics item by item and then across academic and social integration vectors. Then, the researcher will conduct an ANOVA test to analyze whether there are any differences by gender or other

demographic factors such as age, marital status, number of children, scholarship status, academic level, major, region, being the first generation in the scholarship program, type of visa, and working part-time. Finally, regression analysis will be conducted to determine the modular fit and productiveness of Saudi student academic and social integration responses to their persistence propensity. Finally, I will use coding analysis of open-ended qualitative responses. Emergent themes are expected to help explain quantitative findings in research question 1.

Operational Definitions

The following are the definitions of the key terms that will be used in this study:

Persistence - It is the ability of Saudi scholarship students to stay in their academic programs until they achieve their objectives and get their degrees.

Academic integration - It is the formal and informal relationship and interaction between Saudi scholarship students and other members of the educational environment that are related to their academic development and performance.

Social integration - The informal relationships and interactions between Saudi scholarship students and other members of the university that make them feel like a member of the community.

Saudi international students - Saudi students who are in the United States completing full-time or part-time studies in the U.S. higher education system.

King Abdullah Scholarship Program (KASP) - The scholarship program that was created and supported by the Saudi government after an agreement between the previous King of Saudi Arabia, King Abdullah, and the previous president of the United States, George W. Bush, to increase the number of Saudi students who are studying in the United States. This program started in 2005 and opened the door for Saudi students to get their educational degrees from

foreign countries that have the best higher education institutions in the world, such as the United States, Canada, United Kingdom, Australia...etc. (SACM, 2017).

Saudi Arabia Cultural Mission (SACM) - The administration that follows the Ministry of Education in Saudi Arabia. It is responsible for all Saudi students who are studying in the United States.

Limitations of the Study

The researcher will use an online survey which prevents face-to-face interaction and receiving more details about Saudi students' experiences. Most of the Saudi international students who are studying at U.S. universities have some language barriers that could cause misunderstanding when I apply the survey, especially if some of them just passed an English language program to bridge into a degree program. For this reason, the researcher plans to use the survey in both English and Arabic languages. In addition, as this is a cross-sectional rather than longitudinal design, the researcher cannot measure student persistence over time, but can examine student propensity to persist.

Outline of Chapters

This dissertation will contain five chapters. The first chapter will include an overview of the study (the purpose, the significance, the limitations, the theoretical framework, and the design of the study). The second chapter will present the literature review of the study starting with Tinto's Theory of Student Departure, international students' persistence in U.S. universities, and Saudi international students under King Abdullah scholarship program. The third chapter will focus on the methodology that will be used in this study. It will describe the sample and the tool that will be used to collect the data. The fourth chapter will include an analysis of the data.

Finally, the fifth chapter will discuss the findings and provides some recommendations and suggestions for future studies.

CHAPTER II: A REVIEW OF LITERATURE

Saudi Students' Retention and Persistence in U.S. Institutions of Higher Education

The history of Saudi students studying in institutions of higher education in the United States can be traced back to 1947 when the first Saudi student, Abdullah Tariki, attended the University of Texas to obtain his Masters' degree in petroleum engineering and geology (Al-Madinah, 2015). Since that time, the number of Saudi students studying in the United States has steadily increased. In 2016, Saudi students were reported to be the third largest group of international students attending U.S. institutions of higher education (IIE, 2017). This chapter will present an overview of the literature and research that relates to Saudi students studying in U.S. institutions and the challenges that these students encounter while working to achieve their academic goals, as well as the issues students face while attempting to seamlessly integrate into a culture unlike their own.

In the literature review, the researcher has collected information from different resources, including theses, dissertations, article journals, and textbooks. the researcher also used the university's databases and websites that relate to international student affairs in general, including the Association of International Educators (NAFSA), and the Institute of International Education (IIE), or websites related to Saudi students in general, such as the Saudi Arabian Cultural Mission (SACM), and the Ministry of Education in Saudi Arabia. In addition, the researcher collected some information from Arabic websites that discuss the scholarship programs in Saudi Arabia or that are related to the history of education in Saudi Arabia; the researcher also used some Arabic resources, such as textbooks, newspapers, and journal articles.

Due to the limited literature that explores factors that influence the academic and the social integration of Saudi international students in the United States and in their respective institutions of higher education, this review draws from research and studies that relate to international students in general. Also, the researcher benefitted from studies conducted to evaluate the experience of Saudi students in countries such as the United Kingdom, Canada, and Australia.

This chapter is divided into the following sections: (1) International Students in U.S. Institutions of Higher Education, (2) Saudi Students in U.S. Institutions of Higher Education, (3) Tinto's Theory of Student Departure, (4) International Students' Persistence in U.S. Institutions of Higher Education, (5) Saudi Students' Persistence in U.S. Institutions of Higher Education and (6) Summary of the Literature.

International Students in U.S. Institutions of Higher Education

The history of international students in the United States can be traced back to 1784, when a group of international students studied at Yale University during the U.S. colonial era. However, the number of international students did not increase significantly until the 1950s, after World War II, when many scholars and students came to the United States from other countries. They were looking for a high-quality education and training that they could not obtain in their countries. These students wanted to get the benefit of scholarship funds, and they also wanted to learn more about the United States (Bulthuis, 1986).

According to Abualkhair (2012), international students are non-U.S. citizens who come to the United States under temporary visas that allow them to obtain undergraduate, graduate, or professional degrees. They often return to their home countries once their degree program is complete. There are many reasons motivating international students to leave their home countries

and come to the United States to earn degrees. For example, in some countries outside the United States, higher education institutions have limited access to high school students, even though there is a high demand for educated people in their countries. Also, career opportunities increase for students who earn degrees in countries other than their own; this is particularly due to the prestige associated with specific degree programs outside their home countries (Mazzarol & Soutar, 2002). The Fall 2016 Enrollment Report, conducted by The Institution of International Education (IIE), reported many factors that influenced the enrollment of international students in the last academic year (see Figure 2), including recruitment efforts from individuals outside and inside institutions, reputation of institutions, jobs and careers tailored to international students, and the growing number of English as a Second Language (ESL) programs.

The enrollment of international students in U.S. institutions of higher education has grown significantly since the 1948-1949 academic year (IIE, 2017). In that academic year, the number of international students was 25,464, which represented 1.1% of total U.S. student enrollment. In comparison, during the 2015-2016 academic year, the number of international students grew to 1,043,839, reaching 5.2% of the total U.S. student enrollment, with a 7.1% increase from the previous academic year. In the last academic year, 2016-2017, the number of international students continued to grow by 3.4%, but enrollment of new students decreased by 3.3% from 2015-2016 (IIE, 2017).

Though international students come from all parts of the world, in recent years, most of international students enrolled in U.S. institutions of higher education have come from China and India (see Figure 3). Of the total international student enrollments during the 2015-2016 academic year, 32% of students were from China, and 16% were from India. Following these two countries, South Korea has had the third largest student population since the 2001-2002

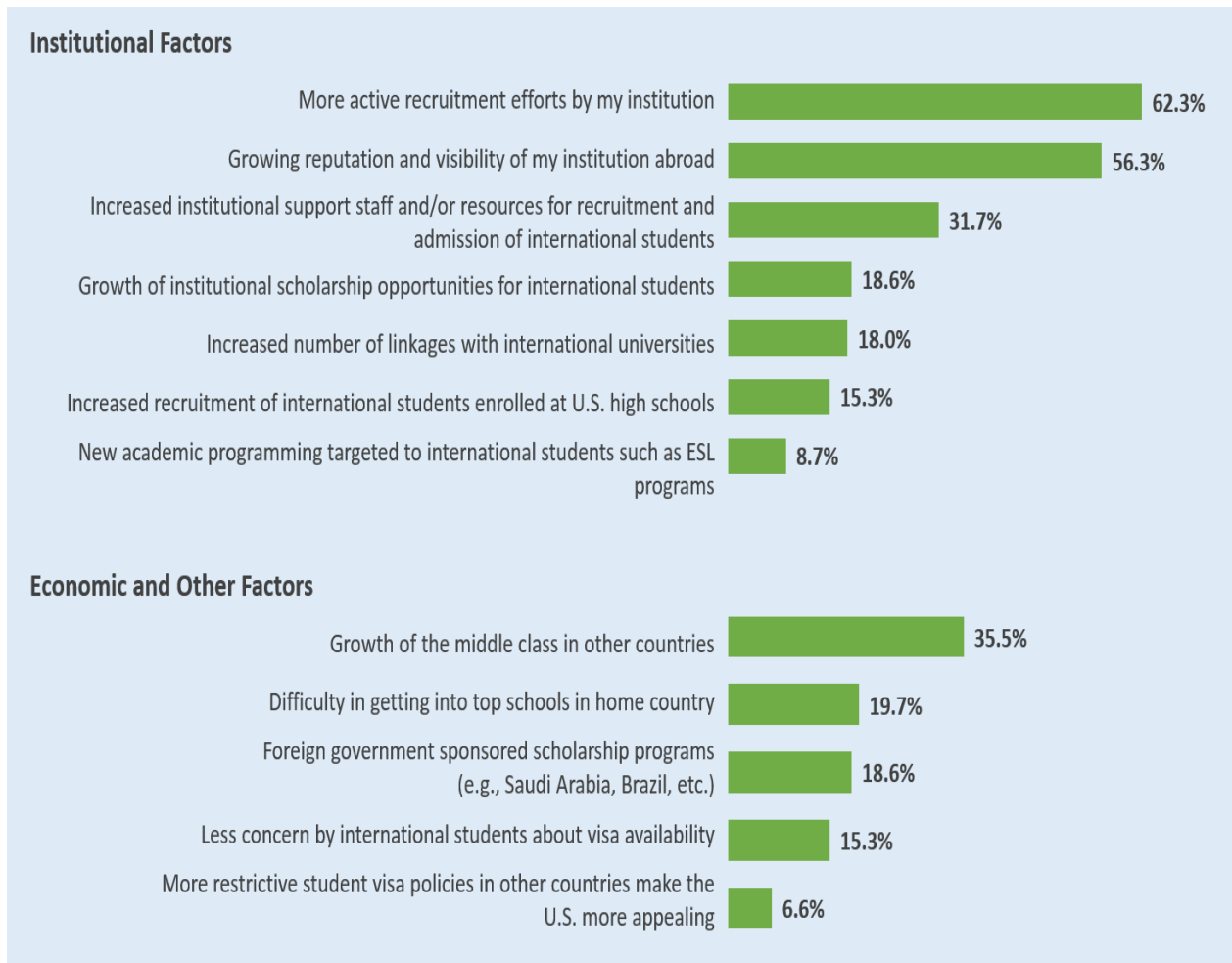
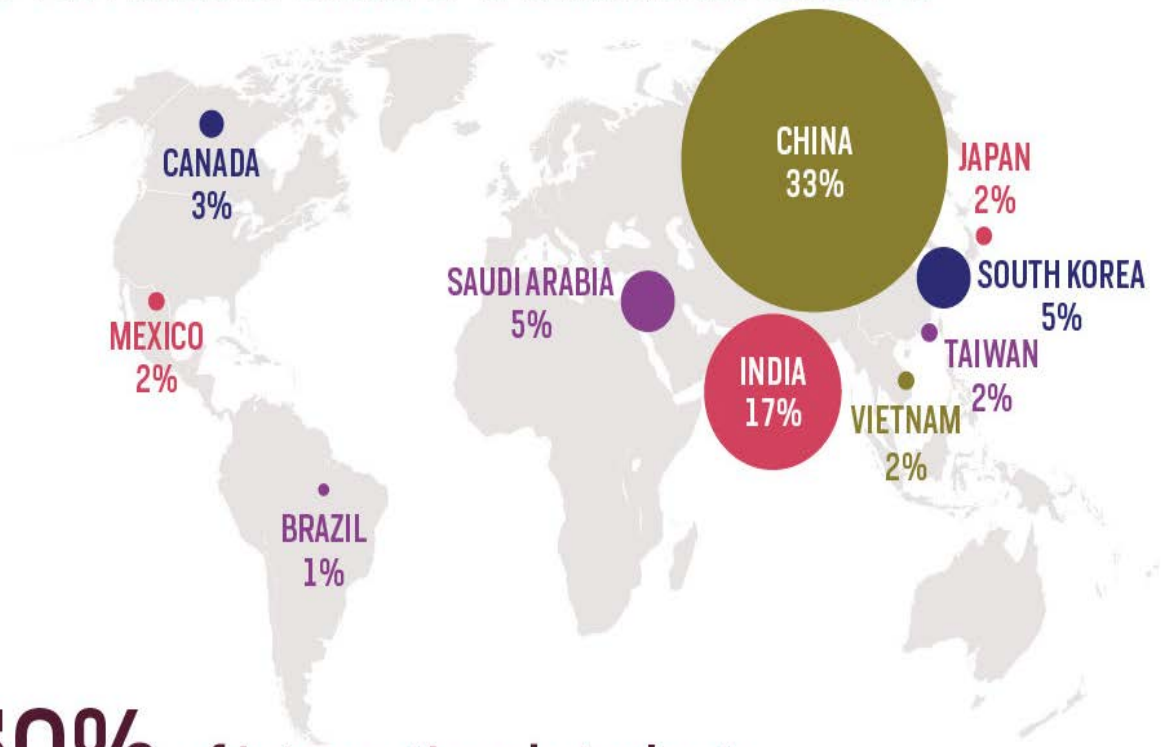


Figure 2. Key factors driving international student enrollment.

TOP TEN PLACES OF ORIGIN OF INTERNATIONAL STUDENTS



50% of international students
come from China and India.

Note. (Open Door IIE, 2017).

Figure 3. Top ten places of origin of international students.

academic year; but, because of a decrease in South Korean students in the 2015-2016 academic year, Saudi students moved up to third place in total student enrollment with Saudi students accounting for 6% of all international students. In the 2016-2017 academic year, Saudi students returned to fourth place, and the number dropped by 14% from the previous year (IIE, 2017).

According to the U.S. Department of Commerce (2017), there are a lot of benefits that international students bring to the United States. These benefits include having a positive economic impact. For example, international students contributed more than \$39.4 billion to the U.S. economy in the 2016-2017 academic year. Furthermore, there are invaluable cultural and academic benefits that come from having international students at U.S. institutions, such as sharing their international perspectives and experiences and diversifying the student body, thus creating a multicultural environment on college campuses, improving cross-cultural interactions amongst students, and aiding in preparing students to be global citizens and leaders. In addition, international students who return to their native countries can aid in fostering and improving relationships between their home country and the United States, especially if these students return home and are in leadership positions in their country's educational, economic, or government system (Charles-Toussaint & Crowson, 2010).

Even though the number of international students has steadily increased, the Fall 2016 Enrollment Report (IIE, 2017) highlights several factors that have contributed to the decrease in the number of international students (see Figure 4) enrolled in U.S. colleges and universities in recent years. Factors include rising tuition costs, changes in overseas governments that previously provided study abroad opportunities through scholarship programs, international students' enrollment in or transfer to other institutions in the United States or abroad, students returning to their home countries to finish their studies more stringent visa processes, a decrease

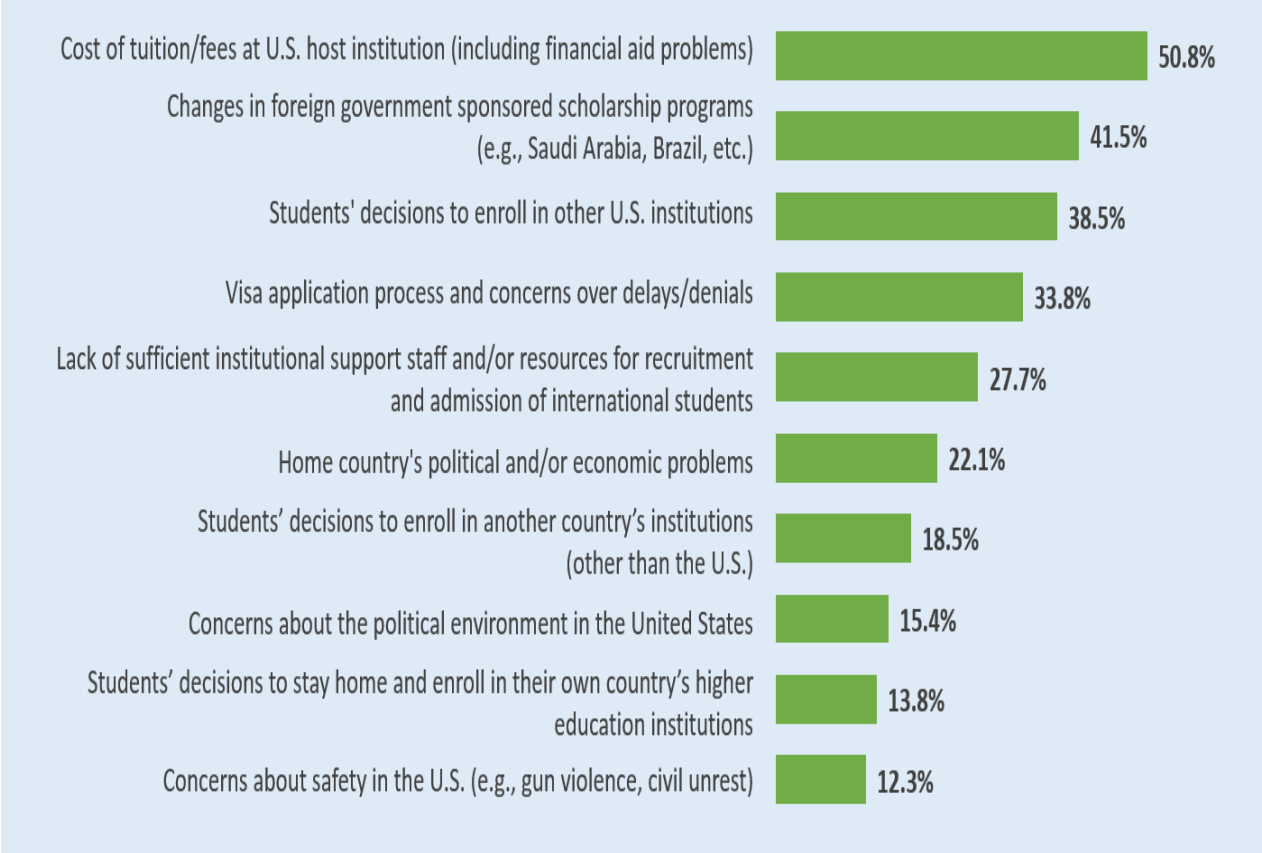


Figure 4. Key factors affecting declines in international student enrollment.

in institutional support of international student affairs, rising political issues and tensions in the United States and abroad, and safety concerns in the United States.

International Students' Experiences and Challenges in the United States

Personal, financial, social, and academic challenges can be detrimental to the success of any college student and can impede a student's ability to adjust, thereby affecting his or her academic development. These challenges are even more pronounced for international students, especially when considering linguistic and cultural barriers (Ellis, Sawyer, Gill, Medlin, & Wilson, 2005; Gautam, Lowery, Mays, & Durant, 2016; Lin & Yi, 2007; Tidwell & Hanassab, 2007). These challenges can consequently lead to feelings of homesickness, lack of personal interactions with U.S. peers, and trouble navigating through the U.S. educational system (Haydon, 2003; Ota, 2013; Shin, 2013).

English Language Proficiency

One of the most prevalent issues that most international students face while studying in the United States and other countries that host international students is the language barrier. Research conducted by Ellis et al. (2005) explored the experiences of international students enrolled in Australian universities; these students indicated that they had language difficulties during conversations while listening to lectures, and while engaging in academic writing and reading required in their coursework. Lack of language proficiency can negatively impact the academic performance of international students, making it difficult to disentangle a student's lack of knowledge regarding the content versus their linguistic difficulties (Lin & Yi, 1997). Moreover, the lack of language proficiency decreases the confidence of international students, which can consequently impact their academic performance and success (Sato & Hodge, 2015;

Stoynoff, 1997). Overall, linguistic challenges make it difficult for international students to adjust to a new academic environment (Lin & Yi, 1997).

Discrimination

Discrimination against one group of people, or students, is a major topic of discussion on college campuses, especially on multi-cultural campuses. In the case of international students, discrimination against them in the United States has become more prevalent since the attacks on 9/11, and more so for those students coming from Middle Eastern countries (Poyrazli & Grahame, 2007).

There are a few studies that discuss the issues of discrimination against international students studying in U.S. institutions. A review of the available literature identified studies conducted to gauge international students' *perceived* discrimination, or the students' "interpretation of being subject to prejudicial treatment" (de Araujo, 2011, p. 5). Lee and Rice (2007) indicated that international students from countries such as Canada and New Zealand did not face any discrimination at all because of their race and/or culture. International students from the Middle East reported more discrimination than students from Asian, Indian, and Latin American cultures. A study conducted by Hanassab (2006) explored and assessed perceived discrimination in international students, specifically, discrimination as it relates to a student's geographical region of origin. Study results indicated that international students reported experiencing discrimination on varying levels; however, international students from the Middle East and Africa experienced a higher rate of discrimination than did students from other parts of the world, both on and off campus.

Navigating U.S. Higher Education Policies

The federal nature of the U.S. system can render institutions difficult to navigate for domestic students, but even more so for international students. Several policies both at the national and institutional level can prove challenging, and the list to follow is not exhaustive.

Academic integrity standards in U.S. institutions. The University of Illinois website (2017) defines *academic integrity* as “honesty and responsibility in scholarship. Students and faculty alike must obey rules of honest scholarship, which means that all academic work should result from an individual's own efforts. Intellectual contributions from others must be consistently and responsibly acknowledged. Academic work completed in any other way is fraudulent.” However, there is not one consistent definition of *academic integrity* across institutions in the United States. Each institution decides how to define the term and how to enforce policies to punish those who violate the terms set forth in their definition.

International students may not be familiar with standard English writing styles and academic integrity policies of the educational institutions in their host country; this lack of knowledge can make the academic integration of international students even more challenging. A lack of understanding of what plagiarism means, combined with the lack of English language and writing skills and impending assignment deadlines could all explain the reason for the number of incidents of international students failing due to issues with plagiarism (Song-Turner, 2008).

Federal immigration regulations. After the tragic attacks on 9/11, the U.S. federal government created the Student and Exchange Visitor Information System database (SEVIS), a database that created a unique challenge for international students that American students do not face. International students are required to report information for inclusion in the SEVIS

database. This information includes, but is not limited to, whether the student enrolled full-time in the previous semester, if the student attended all classes, and a student's commitment to the program's end date or requesting an extension if one is necessary (NAFSA, 2016). This unique challenge could possibly impact the retention of international students, because if students do not follow SEVIS regulations the United States could void their I-20 form; students are then required to leave the United States. (U.S. Immigration Customs Enforcement, 2017).

More recently, on January 27, 2017, the current U.S. president's administration executed Executive Order 13769, titled *Protecting the Nation from Foreign Terrorist Entry into the United States*, which temporarily banned immigrants from seven Muslim majority nations from entering the United States. (White House, 2017). Upon legal challenges from state courts, the original executive order was amended to include only six of the original seven countries. The amended order also included procedural protections absent in the initial order, which led to significant travel issues for individuals with legal entry documentation. The amended order is currently enjoined by several district court judges in Hawaii (Gonzales, Rose, & Kennedy, 2017). While the ultimate status of the executive order lingers before U.S. courts, the negativity generated by the order still creates unfavorable conditions for current and future international students studying in the United States (Fischer, 2017).

Saudi Students in U.S. Institutions of Higher Education

Students studying in the United States come from all parts of the world. Countries encourage study abroad, especially in the United States, and have established programs and systems of support for the students they send to study abroad. Saudi students have come to study in the United States., as well as to other countries, for many years. The Saudi government recognized the need for educational training for its citizens and set forth to develop a program by

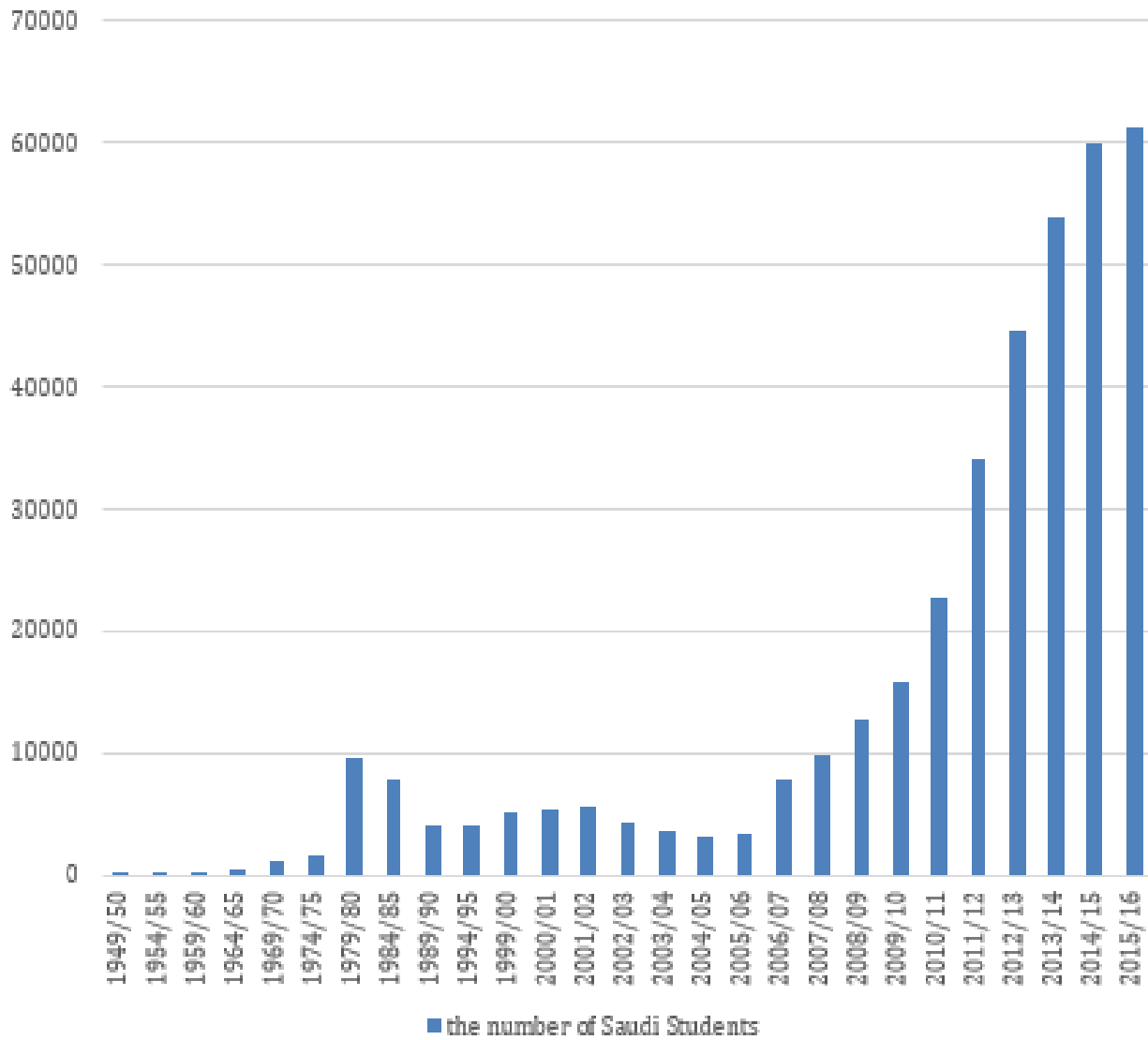
which its citizens could be trained, after which they would return home to impart their knowledge, skills, and expertise on the citizens of their own country.

The History of Saudi Scholarship Programs

The history of Saudi higher education shows that the Saudi scholarship program started in 1927, when King Abdul-Aziz, the founder of Saudi Arabia, sent the first scholarship recipients to study in Egypt. The scholarship was awarded to six students and their supervisors. Then, in 1929, the King sent the first scholarship students to study in European countries, with the majority attending institutions in London, including three employees from the Makkah post office. The government wanted these employees to get the best training at the Marconi Company in England (Al-taleb, 1980). Research indicates that Abdullah Al-Triki, the first minister of Petroleum and Mineral Resources in Saudi Arabia was among the first Saudi students who studied in the United States. In 1948, a group of thirty Saudi scholarship recipients arrived in the United States; two years later, in 1951, the Saudi government established the first Saudi cultural office in the United States, in Washington DC, to supervise these students and to provide support (Al-Madinah, 2015).

Over time, the number of Saudi students in the United States. has grown from 18 students to 61,287 students (see Figure 5). This growth allowed many Saudi students to earn their academic degrees from many prestigious American universities in a variety of disciplines. However, there has been a decrease in the number of Saudi students who have enrolled in the U.S. institution as of the 2016-2017 academic year. There were 61,287 in the 2015-2016 academic year compared to 59,945 Saudi students in the previous year. This decrease was influenced by factors such a change in policy around the scholarship program in Saudi Arabia, Trump administration viewpoints on foreigners, and the competition from Europe and Australian

The Number of Saudi Students in the U.S. from 1950-2016



Note. (Open Door IIE, 2017).

Figure 5. The number of Saudi Students in the United States.

universities and language academies that are attracting more foreign students (Open Doors IIE, 2017).

King Abdullah Scholarship Program (KASP)

The King Abdullah Scholarship Program (KASP), in all its stages, represents a quantum leap in Saudi higher education. This program is considered the biggest scholarship program in the world. The KASP started in 2005 after an agreement between the former King of Saudi Arabia, King Abdullah, and the former President of the United States, George W. Bush. This program opened the door for many Saudi students to achieve their dreams of studying abroad. The KASP offers the opportunity for Saudi students to attend foreign universities in different countries around the world, including the United States., Canada, the United Kingdom, Ireland, France, Spain, Italy, Australia, Germany, the Netherlands, Poland, and New Zealand (SACM, 2017).

Saudi Student Experiences in U.S. Institutions of Higher Education

Just like all international students studying in the United States, Saudi students must overcome many challenges, such as successfully integrating socially and academically. While in the past few years, the number of studies that have investigated the experiences of Saudi students has grown, there is still a need for more studies, especially given the enrollment of Saudi students in U.S. institutions.

A review of the literature relevant to the experiences of Saudi students studying abroad is detailed below and is divided into three sections. The first section discusses studies that explain Saudi students' experiences *before* the KASP, the second section discusses the Saudi students' experiences *after* the KASP, and the last section details studies that discuss the experiences of Saudi female students studying abroad.

Saudi Students' Experiences before the KASP

There are a few studies that discuss Saudi students' experiences, a period of adjustment, and their ability to cope in a new environment during their time while studying abroad.

These studies started to appear in the literature in the 1970s, 1980s, and 1990s in dissertations and in research conducted by Saudi students; however, after the attacks on 9/11, studies such as these became almost non-existent in the United States.

In his study, Al-Shehry (1989) explored the experiences of Saudi students in U.S. institutions in the 1980s. He surveyed more than 300 Saudi students who were enrolled in the 1986 spring semester. The analysis of the data collected showed that the understanding of the English language was one of the biggest challenges that Saudi students encountered while studying in the United States. Among these challenges were difficulties with oral presentations, writing, the pronunciation of words, and vocabulary when writing and/or speaking. Moreover, the study found that students' academic performance was affected by the lack of language proficiency. Most study participants reported that they were concerned about writing papers in the course, anxiety around their grades, and inadequate advice from their academic advisors. The second challenge identified by the study was financial issues, including the need for funds due to students' limited incomes; maintaining a more expensive lifestyle than they previously had, which is due in part to higher living expenses in the United States; and unforeseen financial expenses. Also, students reported issues with admission to U.S. institutions as another challenge they faced. For example, they either had difficulty being admitted to the college of their first choice or were not admitted to a U.S. institution at all.

A quantitative study conducted by Mustafa (1985) discussed and analyzed problems that Saudi students encountered at Western Michigan University (WMU) from the perspective of

WMU faculty and administrators, academic advisors in the Saudi Arabian Cultural Mission, and the students themselves. The analysis of the data collected from a questionnaire showed that students at WMU reported having some difficulties with the acquisition of the English language. These difficulties included problems with giving oral presentations, issues with pronouncing some words in English, apprehension in participating in class discussions, and lack of confidence in one's skills in writing essays and term papers, which turned out to be the most challenging issue that students faced. This study also found that the length of time that Saudi students spent studying in the United States does have an impact on their writing skills, as well as their success as international students. Taking more classes, developing better note-taking skills, and gaining a better understanding of how the U.S. higher education system works aided in the successful integration of Saudi students. Surprisingly, a students' marital status influenced the time that students take to complete their program of study in comparison to their American counterparts.

In another study, conducted by Al-Nusair (2000), the relationship between the Saudi students' experiences, their satisfaction, and educational outcomes based on their own perceptions were analyzed. The research used the College Students Experience Questionnaire (CSEQ) to collect the data needed for analysis. The findings of this study presented that the academic involvement of Saudi students was more than American students, but that the social interactions and writing skills of Saudi students were less than those of American students. Also, Saudi students reported not being satisfied with their grades and educational outcome, with the exception in technology and science disciplines and/or courses. A summary of Saudi students' experiences is provided at the end of this section.

Saudi Students' Experiences after the KASP

In a qualitative research study using a phenomenological approach, McKean (2016) described the experience of Saudi students working on a team project setting at one midwestern university. The data were collected through a series of semi-structured, open-ended interviews. The results of this study indicated that language barriers, misunderstanding of the new culture, the students' unfamiliarity with coeducation, and the differences between Saudi and American students' values were some of the barriers encountered by the participants. Also, the findings showed that Saudi students were able to overcome these barriers by engaging in resilient thinking and building positive relationships with their American peers. In addition, the findings emphasized the importance of the role that the instructor and the team assignments play in the acculturation process.

In another study conducted in Australia, Alshafi and Shin (2017) explored factors that impacted the Saudi student's educational life. The research method used in this study was a mixed method, and the data used was collected from 100 Saudi students at Sydney University. The results of this study showed that the primary challenge preventing Saudi students from adjusting both socially and academically while studying in the United States was their lack of English proficiency. Also, the activities in the classroom and the methods of assessment were academic challenges that affected the participants. In addition, being away from home and loneliness also posed additional social challenges for these students. Students discussed coping strategies to help alleviate these feelings, including developing their language proficiency, utilizing university resources more, and participating in the cultural activities and practices of those outside of their own culture.

In a study of Saudi and Emirati students, Al Marshedi (2011) tried to explore the academic and cultural challenges that affected Saudi and Emirati students who were studying abroad. She used the mixed methods approach by posting an online questionnaire that was responded to by 219 students; she then interviewed six students. These students reported having language challenges that kept them quiet and afraid to interact in the classroom. The most difficult task discussed in the interviews was the lack of writing skills of the students. The students reported trying to overcome the difficulty of writing on the required level by taking more writing classes, using dictionaries, or utilizing the writing center on their campus. In all, the findings for both Saudi and Emirati students were similar because of the shared culture, religion and language of these two subsets of students.

Saudi Female Students' Experience in the United States

The experience of Saudi students is potentially more challenging than other international students because they come from a gender-segregated society. Therefore, these students have more transition barriers when coming to a mixed-gender environment. Alhazmi and Nyland (2013) explained some factors related to the transition experience of Saudi students studying in a mixed-gender environment. This study of Saudi students took place in Australia. The findings showed the significant relationship between Saudi cultural identity and their new experience in a mixed-gender society. However, in a study by AlMarshedi (2011), the analysis of data showed that Saudi and Emirati students do not consider gender as an issue; nevertheless, female Saudi and Emirati Students interacted less with male students. This may be attributable to gender segregation perceived as a fact of life and a positive way to practice Islam, as opposed to the perception of gender segregation as a challenge.

The history of education in Saudi Arabia shows that schools were opened in 1949 for male students only; then, in 1959, the first school of female students was opened (Al-Abdulkareem, 2012). The education of Saudi female students in Saudi Arabia started ten years after their male counterparts; however, the number of Saudi female students who have graduated from Saudi universities in the last few years is greater than the number of men who have graduated. According to the Ministry of Education (2015), the number of Saudi female students who graduated from higher education institutions in Saudi Arabia was 72,087, and the number of male students who graduated was 69,109. Similarly, the scholarship programs were initially started for the benefit of male students; but later, the government started to send female students to study abroad. Like all international students, and like male Saudi students, Saudi female students have encountered a lot of challenges and barriers that they have had to cope with to better adjust in their new environment. Because of cultural and traditional factors, Saudi female students have their own unique challenges that require more support.

Lefdahl-Davis and Perrone-McGovern's (2015) qualitative study explored the experience of Saudi female students in U.S. colleges and universities, and their way of adjusting to this change. The researcher used grounded theory and collected from 25 Saudi female students from around the country. The findings of this study indicated that limited English proficiency, lack of social support, and failure to understand cultural differences (gender integration, increased diversity and mobility, and freedom) were some factors that affected the adjustment of Saudi women. Additionally, Saudi women indicated that they were transformed by their time in the United States. They reported having more confidence, feeling more independent, and being accepted more by others.

In another study, Alremainh (2016) explored the social and academic challenges that Saudi female students face in the United States. This study presented three prevalent challenges: social challenges, which include sub-themes, such as social judgment, friendship, mahram (an Arabic word that means male guardians for women like father, brother, husband) issues, discrimination, managing responsibilities, and cultural differences; academic challenges, such as language barriers, admissions, different teaching methods, different laws, and lack of support; and emotional challenges, including homesickness and lack of spiritual connection.

The challenges faced by Saudi female students can be more complex depending on their situation, especially for those who are enrolled in doctoral programs and who have a spouse and/or child(ren). In her study, Alhajj (2016) investigated the experience of Saudi female doctoral students who have their children during their journey to complete their degrees. She interviewed 14 Saudi female students and asked them about the way that they managed their life as doctoral students and as mothers. Also, she asked them about the support that they received and the coping strategies that they developed during their educational journey. The findings of this study presented some important themes, such as how Saudi female doctoral students can be successful even when they have their children with them, and that they received support from their husbands, faculty members, and classmates as they work to complete their degree program. Moreover, these students have unique barriers such as academic difficulties, lack of support from the universities and Saudi Arabia Cultural Mission (SACM), feelings of discrimination, and feelings of guilt. Female students reported employing several strategies to help them overcome these challenges, including, but not limited to, limiting social activities with their peers, asking for help for housekeeping duties, utilizing childcare facilities for small children, finding activities to engage older children, and learning to better manage their time.

From the aforementioned studies, several themes emerged. Though these studies were conducted in different regions, the themes that emerged included similar challenges and barriers affecting Saudi students' educational experiences. Qualitative research methods are more suitable for the purposes of this study, even though most studies conducted before KASP were quantitative, and they all recommended qualitative research methods for future studies. After KASP, researchers started to explore the experience of Saudi students by using qualitative research methods. One prevalent challenge in most of the studies discussed was the limited English proficiency of the Saudi students, a challenge that could impact both the social and the academic integration of all international students, and especially Saudi students. Even though the challenges presented in these studies are important, the researchers failed to acknowledge the challenges that affect the information retention of Saudi students in their academic programs, specifically in understanding what is meant by academic integrity and in learning to adapt to the teaching methods in U.S. institutions.

Other common themes from the studies indicated that Saudi female students face more challenges and barriers than their male counterparts, even though they believe that studying abroad is one of the positive experiences that they have because it increases their confidence, makes them more independent, and allows for more freedom and mobility than in their home country. On the other hand, women are most likely to face discrimination and racism due to their appearance, especially if they are wearing a hijab (headscarf). However, women have a few unique experiences when studying abroad that Saudi men do not have. For example, Saudi women can experience challenges related to mahram, childcare while studying, and new experiences like learning to drive a car or navigating the public transportation system. On a positive note, these studies reported that overall, Saudi women felt that the gender environment

in the United States was very liberal, and encouraged women to step up to positions of leadership and other facets of life. Because of these factors, female students from Saudi Arabia are more likely to be motivated and strive to work harder of their education. Moreover, by observing the faculty, staff, and fellow students, Saudi female students realize that women are well treated in the United States.

Lastly, before KASP, financial issues were one of the top challenges encountered by Saudi students, but after KASP, students were able to afford to study abroad. One reason for this change can be attributed to the financial advantages provided by the Saudi government for Saudi students after the KASP was established (SACM, 2017). In fact, the literature indicated that the 2016-2017 academic year showed an increase in the number of dissertations written and defended by Saudi doctoral students (Aldossari, 2016; al Ramadan, 2016; Alremaih, 2016; Alhajjuj, 2016). This growth can be attributed to the growing number of Saudi international students under KASP; there is an increase in the awareness, sharing, and exploration of Saudi students' experiences studying in U.S. institutions, a potential indicator of KASP programmatic success.

Students Retention in U.S. Institutions of Higher Education

Tinto's Theory of Student Departure

One of the theories cited and used the most in student persistence and/or retention studies is Tinto's Theory of Student Departure (Braxton, Hirschy, & McClendon, 2004). According to this theory, the persistence of students in their programs is directly related to their academic and social integration (Tinto, 1987). In 1975, Tinto presented his fundamental Theory of Student Departure. Then, he illustrated a review of his theory in 1987 and 1993.

Tinto's Longitudinal Model of Institutional Departure

Tinto's (1993) Longitudinal Model of Institutional Departure is probably one of the most robust and cited models in higher education as a field of study, receiving 12,900 hits in Google Scholar. In it, he illustrates several factors that affect student departure (see Figure 1). First, Tinto's model confirmed that students attending higher education institutions all have different family backgrounds, pre-school experiences, skills, and abilities, as well as different goals, intentions and commitments. Second, after students attend their academic programs, their departure decision is more affected by what is going on in the institution, which Tinto called *institutional experiences*. Institutional experiences in this model include the formal interactions between students and faculty members (in the classroom) or informal encounters (outside of the classroom), as well as students' interactions within their peer groups. Finally, if students are satisfied with their institutional experience, they are more likely to integrate socially and academically. Then, the academic and the social integration contribute to reshaping a student's goals and commitments positively and lead them to continue. On the other hand, if students are not satisfied with their institutional experiences, they cannot be integrated well, which causes their departure (Tinto, 1993).

Tinto's (1993) Longitudinal Model of Institutional Departure is used as a theoretical framework for this study to examine the persistence of Saudi students who are studying in United States institutions of higher education.

International Students' Retention in U.S. Institutions of Higher Education

Even though the number of international students in the United States is increasing dramatically, the number of studies that explore international student's retention and persistence is still not enough. Most of the studies focus on the factors that affect international student's

retention and persistence in the U.S. and other countries that have the same academic and social environments, such as Canada and Australia.

Regarding the factors that influence international students' persistence, there are factors related to the institutional environment (campus services, classroom environment, and teaching methods) or personal characteristics of the student (goals, future vision, self-motivation, and self-pride) that can impact persistence. Also, researchers use different theoretical models for students' persistence and retention such as Tinto (1987, 1997), Astin's (1970) Theory of Student Involvement, and Kuh's Model of Student Engagement (Kuh, 2003, 2009). In addition, most studies collected the data from first-year student populations because, as indicated in Tinto's Theory (1987), the integration of students in the first year in their programs could predict their persistence through graduation.

Different studies confirmed that the prediction of international students' persistence in the higher education institution cannot be measured by a specific factor or model as Kwai (2010) indicated in his study. He tested the factors that affect the retention of 454 international undergraduate students in statewide university between the fall of 2006 and the fall of 2007. He also found that academic performance (GPA, student credit hours) and on-campus jobs positively impact international undergraduate students' persistence. In comparison to local students, the study did not show any statistically significant differences.

Mamiseishvili (2012) found similar findings in his study that explored international students' characteristics in the first year and the factors that affect their persistence in U.S. institutions of higher education. The findings of his study showed that GPA, the degree plan, and academic integration all had a positive effect on international students' persistence. On the other hand, the lack of English language skills and social integration negatively influenced

international students and their persistence. Finally, the study confirmed the need for collaboration among all departments on campus to service international students because their persistence in the university is not only on the shoulders of international offices; all departments on campus should share the responsibility.

Most studies that try to explore the retention and the persistence of international students presented the factors that affect international students to leave or persist in their program, but Fass-Holmes (2016) illustrated some unique factors that international students were most likely to encounter. For example, poor English writing skills, failure to comply with American immigration regulations or academic honesty standards, and unfamiliar teaching methods were some factors that could be a reason for academic struggles. In contrast, the study confirmed the academic success of international students in west coast American universities where the study was applied.

In the context of first-year international students attending Canadian universities, Zhou and Zhang (2014) sought to discover their experiences while pursuing a degree. Surveys and focus groups were used to collect the data. The findings of this study presented that the lack of social integration, like the poor interaction with faculty, local students and staff, English language barriers, and different cultural and educational systems were some challenges that affected the retention of international students in Canadian universities. Also, regarding the importance of students' persistence and retention, the study illustrated that colleges and universities should extend their services to cover the needs of international students on their campuses.

In another study conducted in the Netherlands, Rienties, Beausaert, Grohnert, Niemantsverdriet, and Kommers (2012) highlighted the differences between international

students and domestic students in the level of their academic and social integration. The findings showed that the academic and social integration of international students differed. International students with backgrounds related to western culture were most likely to integrate well, socially and academically, and their academic performance was higher compared to local students and non-western international backgrounds. Academic performance of local students, western students, and mixed-western students could be predicted by academic adjustment. On the other hand, academic performance can be negatively impacted by social adjustment. Finally, the study indicated that the social and the academic integration for non-western international students need to be studied more closely, as the literature lacks sufficient information in this area.

In a qualitative case study conducted at Falcon University, a U.S. private university, Titlola (2015) interviewed six non-western culture international students and two administrators in the university to explore international students' persistence. The author examined the factors that affect non-western culture international student academic and social integration. The results showed that language difficulties affect both social and academic integration of these students. However, lack of friendship and homesickness also affect the social integration of the students and adapting to new teaching methods affects their academic integration. In addition, there are some factors that help these students to persist, such as the support that comes from their family or their institution, self-motivation, self-pride, personal goals, future vision, and friends.

Saudi Students' Retention

To understand the factors that affect Saudi international students, in the next part of this study, I will highlight the background of these students, how their backgrounds develop their academic capabilities before they come to the United States, and how their backgrounds affect

their goals and intentions upon enrolling in U.S. institutions of higher education. Then, I will present a study that explores Saudi students' persistence and retention in U.S. institutions.

Background of Saudi Students

Saudis are the citizens of the Kingdom of Saudi Arabia (KSA), one of the largest Arabian countries located in the Middle East. Arabic is the main language used in Saudi Arabia, and some Saudis are bilingual; they speak Arabic and English. In addition, Saudi Arabia is an Islamic country, considered to be the birthplace of Islam, and is home to the two holy cities in the Islamic world, Makkah and Al-Madinah. Saudi Arabia follows Islamic law (Al-Sharia) in all aspects of public life, including politics, finance, social interactions, and education. Most Saudi citizens are Muslim (Abo-Hilal, 1986).

Saudi Family and Society

The family is one of the most important elements in Saudi society. Most Saudi families are traditionally structured with a father, a mother, and children. The size of a Saudi family is usually between four and six children, with some families having more than 6 children. Saudi society is a mixture of Arabic culture and Islamic law. Men and women are equal in Islam; however, Saudi society gives men more privileges than women due to the mainstream culture. Also, the interactions between men and women in public places are limited because of the gender-separated culture, and public places in Saudi Arabia are separated by gender, including banks, universities, schools, and hospitals (Abo-Hilal, 1986).

Education in Saudi Arabia

Since Saudi Arabia was established as a modern nation, education has improved dramatically. Saudi Arabia offers free education from elementary school through post-secondary education (Ministry of Education, 2017). However, illiteracy has been one area that has received

attention from the government. Saudi Arabia has succeeded in transforming the illiteracy rate, which, in 1972, was more than 60%, to 4% in 2016, while school enrollment rate reached 98.7% in the same year (the New Gulf, 2016). Most of the students enrolled in Saudi schools and universities are Saudi students, which means that the learning environment that Saudi students come from is less diverse (Ministry of Education, 2017).

Regarding men's and women's education, as mentioned before, all public places in Saudi Arabia are separated by gender; all university campuses are separated by gender, except King Abdullah University, which also educates international students from around the world. Princess Norah University is regarded as the largest university for female students in the world. Its male counterpart is King Faisal University. It should be noted that Saudi universities do not have all majors that satisfy students' educational and professional desires. Due to cultural practices, there are some majors that women cannot study in Saudi Arabia, such as Engineering (Ministry of Education, 2017).

A review of the literature exploring Saudi student retention showed there is one study that explored the factors that affect Saudi student retention. The study, conducted by Aldossari (2016), focused on the retention of undergraduate students (senior students), with data collected from three universities in Wisconsin. The data were collected in two stages; first, researchers surveyed 45 students and then conducted face-to-face interviews with 10 students from the survey participants. The results from the survey included results that personal scales (ambition, prospective career, improving skills, prestige of the degree, GPA, English proficiency and students skills and preparedness) and psychological scales (self-efficacy and self-esteem) had more frequencies than other scales; financial scales had fewer frequencies than other scales; married students had more self-efficacy and self-esteem than single students; married students

were influenced more by the financial scales than single students; and that the father's education affected students' personal factors to complete their degree, but the student's mother's education had no impact.

In addition, the findings of the face-to-face interview indicated that personal and psychological factors, institutional factors, social and academic integration, cultural considerations, and financial influence were the factors that enhanced students retention; GPA, academic achievement and English proficiency were not significant challenges that might affect Saudi students retention because students know how to overcome these challenges; and faculty interaction and university services and resources were some factors that affect positively in Saudi students retention.

Summary of the Literature

This chapter of Saudi students' retention in the U.S. higher education institutions presents some studies that are related to international students and their experiences and challenges that they have faced in the United States. There are multiple factors shown to affect international students' college experiences (e.g. English language proficiency, academic integrity standards, and discrimination). Specifically, the review of the literature introduces the history of Saudi scholarship programs, the history of the King Abdullah Scholarship Program (KASP), and the experience of Saudi students before and after KASP. Finally, the literature review highlights students' retention, starting with Tinto's Longitudinal Model of Institutional Departure, then studies that related to international students' retention, and lastly Saudi students' retention and background. The next chapter will introduce the methodology of this study with more details about the population, the sample, the research method, collecting data, and analyzing the data.

CHAPTER III: METHODOLOGY

This chapter provides information regarding the research method for this study. The first section presents the purpose of the study, research questions, and null hypotheses. The second section includes detailed information about the research design, population, and the study's sample. The third section explains the instrumentation (which includes all process that will be used to collect the data), data analysis, and potential ethical issues that could affect the result of the study.

Purpose of the Study

The purpose of the present study is to examine indicators of persistence among Saudi students in the United States, using Tinto's Theory of Student Departure (1993), the researcher seeks to examine the academic and the social integration of Saudi students under the King Abdullah Scholarship Program (KASP). Towards this end, this study aims to explore factors that influence their persistence in the U.S. universities.

Research Questions and Null Hypotheses

To understand the persistence of Saudi students in U.S. institutions, the following three questions were developed using Tinto's Model of Departure:

RQ1: What is the nature of academic and social integration of Saudi students in the United States? The purpose of this question is to assess the academic integration and social integration of Saudi students in the US. This question was answered using descriptive statistics generated from the survey employed to assess student academic and social integration. Statistics were generated for each question and then vectors for academic integration and social integration were created. Responses to open-ended questions will help with the understanding of academic and social

experiences contributing to Saudi student academic and social integration. As this question is exploratory, null hypotheses are not necessary.

RQ2: To what extent do academic and social integration factors explain persistence propensity among Saudi students in the United States? This study is designed to provide a cross-sectional analysis of Saudi student academic and social integration in the United States. As such, examination of the actual persistence of current Saudi students over time is beyond the scope of the present study. The propensity of Saudi students to persist was examined utilizing student response to the question of whether s/he believes s/he will complete his/ her degree. Linear regression analysis will be used to determine whether academic and social integration indicators predict student propensity to persist. An R^2 was used to determine modular fit.

H_0 RQ2: Academic and social integration factors do not explain persistence propensity among Saudi students in the United States.

RQ3: Are there statistically significant differences in the academic and social integration of Saudi students in the United States based on student background (gender, age, marital status, number of children, and income); student academic status (scholarship status, academic level, major, region, and first generation in the scholarship program); and institutional factors (working on campus and working hours)? ANOVA was used to separately analyze the influence of these factors on student academic integration and student social integration.

H_0 RQ3: There is no statistically significant difference in the academic or social integration of Saudi students by student background, academic status, or institutional factors. F -scores were analyzed for statistical significance at $p \leq 0.05$.

Research Design

Since this study aims to obtain a large sample to more adequately capture the experiences of a wide variety of Saudi students, a survey with a combination of close-ended and open-ended survey questions will be used. The researcher will use an internet-based survey platform called Qualtrics Survey Software. East Carolina University provides Qualtrics Survey Software for university faculty and student researchers.

The Population and the Sample

This study seeks to recruit Saudi students studying in U.S. institutions in the fall semester of the 2018-2019 academic year under the King Abdullah Scholarship Program (KASP) or other SACM programs. According to the Institution of International Education (IIE, 2017), the number of Saudi students who are attending U.S. institutions in Fall 2017 was 52,611 students. The instrument will be an internet-based survey with a link that will be posted on the official (Facebook and Twitter) accounts of Saudi Arabia Cultural Mission (SACM). The SACM Twitter account: (@SACM_USA) has 59.5K followers and the SACM Facebook account: (@SACM_USA) has 100k followers. They both are managed by the Department of Social and Cultural affairs in the Saudi Arabia Cultural Mission. This study will solicit Saudi scholarship students including those in the King Abdullah Scholarship program, Saudi university, and government employee students Medical and health science students, private sector employee students, and diplomate spouse students. The researcher measured the sample size of this study by using a G*Power software tool (see Table 3 and Figure 6). The minimum targeted number of students for a robust sample was 44 students.

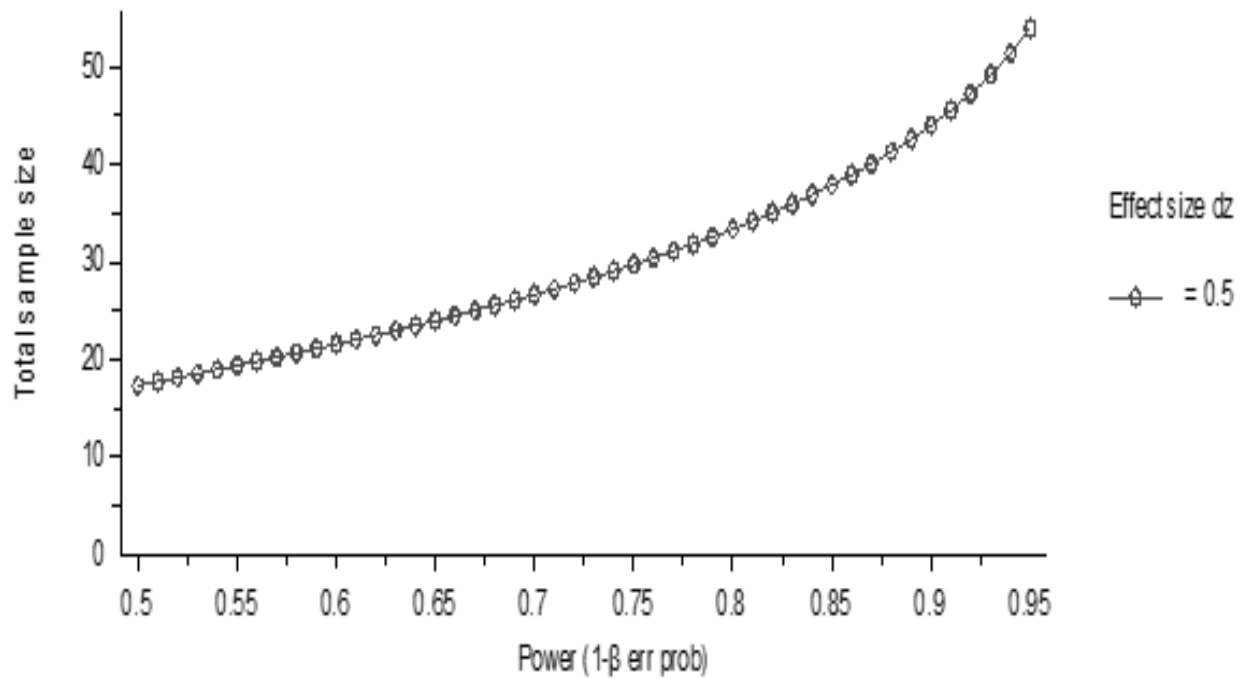
Table 3

T-tests Means: Difference from Constant (One Sample Case)

Analysis: A priori: Compute required sample size

Input:	Tail(s)	Two
	Effect size	0.5
	α err prob	0.05
	Power (1- β err prob)	0.90
Output:	Noncentrality parameter δ	28.2842712
	Critical t	2.0166922
	Df	43
	Total sample size	44
	Actual power	0.9000306

t tests - Means: Difference between two dependent means (matched pairs)
Tail(s) = Two. α err prob = 0.05. Effect size $d_z = 0.5$



Note. (G*Power, 2018).

Figure 6. Sample size in different power degrees.

Instrumentation

After reviewing the scholarly literature regarding Saudi students' experiences and persistence in U.S. colleges and universities, it became apparent that more studies need to be conducted. Most of the previous studies on this topic used quantitative research methods, especially before the King Abdullah Scholarship Program (KASP) was established in 2005. Other studies used qualitative research method or mixed research method with a small sample size. In this study, the researcher will collect qualitative and quantitative data from Saudi scholarship students via an internet-based survey. On the one hand, using the internet-based survey has many benefits such as obtaining a large same sample size that is also diverse, cost-effective (Qualtrics is free for users and the researcher) and convenient (individuals can complete the survey anywhere and the link of the survey can easily be shared). On the other hand, the internet-based survey could affect response rates, for participants may not respond to all questions or leave the survey before they complete it (Fanning, 2005).

The survey in this study included following parts:

1. Consent Form. It is an invitation letter that comes at the beginning of the survey to give the participants an overview of the researcher, the aim of the study and the survey, and the rights of the participants. As is explained in the letter, participation is requested, not required.
2. Demographic Form. This is related to the participants. In this study, the survey will ask the participants to provide some information about (gender, age, marital status, number of children, income, scholarship status, academic level, major, region, first generation in the scholarship, working on campus, and visa type).

3. Academic and Social Integration. This part includes close-ended questions to collect quantitative data and open-ended questions to collect qualitative data.

The close-ended questions of the instrument were adopted from Aldossari's factors contributing to college retention of undergraduate Saudi students studying in the United States (2016). Aldossari's instrument has six scales that could affect Saudi students' retention, corresponding to student academic and social integration. This part focused on each scale (personal, psychological, engagement, university, faculty, and financial). For each scale, participants were asked to indicate their level of agreement to statements using a 5-point Likert Scale from strongly disagree (1) to strongly agree (5). All items of scales were summed to obtain a total score for each participant.

Six Scales

The personal scale consisted of five statements and was developed to understand the characteristics or motivations that allowed a person to accomplish his/her goals. Examples of statements found in the personal scale are "I would like to improve my skills and knowledge" and "I have the ambition to get a better job". The lowest possible score for this scale is 5 and the highest is 25.

The psychological scale consisted of six statements and was developed to understand students' feelings regarding studying abroad. Examples of statements are "Sometimes I feel lonely and not welcome in inside or outside the classroom" and "I do not have difficulty making friends with Americans inside or outside the university." The lowest possible score for this scale is 6 and the highest is 30.

The engagement scale consisted of six statements and was developed to understand the extent of students' engagement at their university/college and their relationship and interaction

with their peers. Examples of statements are “I love to participate in different activities on-campus” and “I have good communication skills that help me communicate well with my classmates.”

The lowest possible score for this scale is 6 and the highest is 30.

The university scale consisted of seven statements and gauged students’ perceptions of campus, facilities, and services provided by their university/college. Examples of statements are “I am satisfied with the services provided by the university” and “I like the university cultural activities.” The lowest possible score for this scale is 7 and the highest is 35.

The faculty scale consisted of seven scales and was developed to gauge students’ perceptions of faculty members and their interaction with faculty members. Examples of statements are “I have good communication with faculty” and “My professor understands my needs and my situation as an international student.” The lowest possible score for this scale is 7 and the highest is 35.

The financial scale consisted of six statements and was developed to understand the extent to which students felt that their scholarship covered their financial needs. Examples of statements are “My scholarship covers all my book and class materials” and “My scholarship covers all my child care expenses.” The lowest possible score for this scale is 6 and the highest is 30.

Table 4 provides a correspondence map between survey questions and Tinto’s Theory of Student Departure. The dependent variable, persistence propensity, is measured by the question “I have a strong desire to achieve my goal and graduate from my program.” Independent variables are broadly characterized under academic integration, social integration, and program variables. It should be noted that variables labeled as psychological in the survey are psycho-social in nature and correspond to individual student adjustment within institutional

Table 4

Connection of Survey Items to Tinto's Theory of Student Departure

Elements of Tinto's Model of Student Departure	Variable Cluster
Academic Integration	Other Personal Variables Faculty Variables Amended Help Questions from University Variables
Social Integration	Psychological Variables Engagement Variables University Variables
Persistence Propensity	I have a strong desire to achieve my goal and graduate from my program.
Program Support	Financial Variables

environments. As such, for purposes of this study, they are posited as indicators of social integration as are engagement variables. Academic integration variables include the rest of the variables classified under personal variables and faculty variables. University variables can be divided between academic and social integration. Questions regarding help seem to correspond better to academic integration, although they could be classified as social integration depending on the assistance sought (Aldossari, 2016). As such, these questions are divided with specificity between the two, with academic help questions appearing within the faculty variables section. Other university variables regard social integration. The financial variables would for domestic students be considered as part of their institutional support which influences both academic and social integration (see Figure 1). As such, it is analyzed separately as a mediating factor and will be independently assessed for influences on the academic and social integration factors.

Open-ended questions were added to the survey to further understand the factors affecting Saudi students' persistence. For each scale, participants were asked to add additional details using their own words. Examples of the questions are "In your opinion, what are the most personal factors that help or prevent you from completing your study in the U.S. universities? Explain why" and "How do you engage on-campus academically? And how do you engage on and off-campus socially? Does your academic and/or social engagement affect your academic progress? How? What could help you to improve your engagement academically? Socially?" The adapted instrument was selected because it was developed using the concept of Tinto's original model and additional concepts that were added by later researches that further expanded and contributed to the understanding of the model. The goal of allowing students to explain in their own words, through open-ended questions is to obtain a more in-depth understanding regarding the extent to which factors affect Saudi students' academic and social integration and

capture specific examples; this will help address the limitations of just having close-ended questions. The full survey is available in Appendix C.

Validity of the Instrument

The instrument used in this research is adapted from Aldossari's dissertation (2016) *Factors Contributing to College Retention of Undergraduate Saudi Students Studying in the United States*. As recommended by Creswell (2014), I received permission from the author to use his instrument. The authors of the instrument performed two tests of reliability. For the first test, a reliability survey items were analyzed using Cronbach's alpha test, based on the results of this analysis items were re-assigned, changed or removed. After adjusting items another Cronbach alpha test was performed. All scales (personal $\alpha= 0.87$, psychological $\alpha=0.71$, engagement $\alpha= 0.80$, university $\alpha= 0.76$ and financial $\alpha=0.81$) had a Cronbach alpha greater than 0.70, except for the faculty scale which had a 0.60 Cronbach alpha score. These scores indicate high levels of reliability within the instrument. Given that the instrument was adapted for this study, the researcher performed an additional Cronbach alpha test using a pilot test of Saudi students.

For the pilot study, the survey was first distributed to a group of non-Saudi international students studying at East Carolina University (ECU). The researcher distributed a link of the survey to the Global Office at ECU, who then sent an email to the non-Saudi international students. Due to the low participation rate of non-Saudi international students, another pilot test was conducted among a group of 30 Saudi students. Using this sample data, Cronbach alpha and Pearson's Correlation tests were performed to test the validity and reliability of the adapted instrument (see Table 5). For the open-ended questions, the researcher recruited ten Saudi

Table 5

Internal Reliability of Pilot Study

Variables	Items	Cronbach's Alpha
Personal	5	.837
Psychological	6	.670
Engagement	6	.816
University	7	.939
Faculty	7	.838
Financial	6	.924
Overall	37	.939

students from ECU (8 female, 2 male) for a focus group. In the focus group, questions were discussed, and participants were asked to provide feedback on the questions.

Cronbach's alpha coefficients for each scale was strong, ranging from $\alpha=0.84$ to $\alpha=0.94$, except for the psychological scale ($\alpha=0.67$). As such, all constructs were deemed valid and reliable for use in this study (see Table 5). The results of Pearson's Correlation test indicate a strong relationship between the scales (see Table 6).

The final version of the survey received approval from the IRB. The researcher was also given permission from the SACM to distribute the survey through its official Facebook account (note IRB letter and SACM letter in Appendix A and B).

Survey Distribution

At the beginning of the Fall 2018 semester, the survey was made available through Qualtrics for two weeks. The survey link was posted on SACM's official Facebook account. Due to the low response rate was seen in the first three days, it was posted, the researcher contacted more than 240 presidents of Saudi clubs located in U.S. institutions through the states; their numbers and contact information were found on SACM's official website (SACM, 2018). They were asked to post the survey on their club's social media site and were also asked to encourage students to participate.

After two weeks the number of participants reached 200 students. To further recruit participants and increase the response rate, the researcher kept the survey open for one more week and contacted accounts on twitter related to Saudi scholarship issues such as @saudiinusa which has 189.3K followers and @GoB3tha which has 7,218 followers. The researcher also used snowball recruiting techniques, contacting friends and relatives who knew Saudi students in the United States. At the close of the survey, there were 944 participants.

Table 6

Person Correlation for Survey Variables (Pilot Study)

Variables		Personal	Psychological	Engagement	University	Faculty	Financial	Overall
Personal	Pearson Correlation	1	.663**	.664**	.622**	.506**	.370*	.825**
	Sig. (2-tailed)		.000	.000	.000	.004	.044	.000
Psychological	Pearson Correlation	.663**	1	.685**	.372*	.526**	.255	.724**
	Sig. (2-tailed)	.000		.000	.043	.003	.174	.000
Engagement	Pearson Correlation	.664**	.685**	1	.708**	.491**	.364*	.847**
	Sig. (2-tailed)	.000	.000		.000	.006	.048	.000
University	Pearson Correlation	.622**	.372*	.708**	1	.431*	.292	.772**
	Sig. (2-tailed)	.000	.043	.000		.017	.118	.000
Faculty	Pearson Correlation	.506**	.526**	.491**	.431*	1	.275	.708**
	Sig. (2-tailed)	.004	.003	.006	.017		.142	.000
Financial	Pearson Correlation	.370*	.255	.364*	.292	.275	1	.625**
	Sig. (2-tailed)	.044	.174	.048	.118	.142		.000
Overall	Pearson Correlation	.825**	.724**	.847**	.772**	.708**	.625**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	

Note. n=30. *Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

Analysis of Data

Quantitative data were analyzed using the SPSS program, and qualitative data were coded into the themes of their respective scales. Data was exported from Qualtrics to Excel for cleaning. The researcher, who is a Saudi native, translated Arabic responses to English. Cleaned quantitative data was then transferred to SPSS for further cleaning such as recoding variables and deleting data for participants who only responded up to the demographic questions at the beginning of the survey. For some quoted responses, demographic variables such as gender or number of children were extracted and tied to their quote to further explain findings.

Demographic Profile and Statistical Procedures

The demographic section in the survey considers as the independent variables (gender, age, marital status, number of children, income, scholarship status, academic level, major, university, first generation in the scholarship program, parents' education, working on campus, and attending orientation). After measuring the means (M) and standard deviations (SD) for all responses of the six scales on the first part of the survey (personal scale, psychological scale, faculty scale, engagement scale, university scale, financial scale) the researcher compiled vectors of academic and social integration. Thereafter, the researcher compared the within and between groups means using ANOVA, then use regression analysis to test whether academic and social integration explains and/or predicts student persistence propensity.

Potential Ethical Issues

In this research, potential ethical issues are minimal. The researcher aims to collect data from participants using well established only survey design techniques. The data that will be collected does not include participants' private information. Furthermore, the first page of the instrument states that participation in this study is completely voluntary. Also, the study needed

an in-depth explanation about the retention of Saudi students using a survey method and the researcher, a current Saudi scholarship student, who has the same background as the participants, which could be perceived as subjective. That could help in all steps during the study and in the discussion of the result. For example, understanding the educational system that Saudi students come from, the regulations of the country, and sharing the same language (Arabic) and believes (Islam). On the other hand, there may be subjectivity issues in interpreting results because the researcher is a Saudi student in the United States. Finally, the researcher completed an online Human Subjects Review Board training that is provided by ECU and will go through all the processes that are required from the Institutional Review Board to receive approval to apply for the study.

Summary

This chapter presents the research method that will be applied in this study. The research method will consist of a combination of close-ended and open-ended survey questions. This method was chosen because it is suitable for the study to explore the experience of Saudi students in U.S. institutions and obtain a robust sample to facilitate external validity. Saudi students who are enrolled in U.S. institutions in Fall 2018 were the participants of this study. The survey was posted on the official accounts of SACM on Tweeter and Facebook. For the analysis stage, the descriptive statistical analysis was used for the close-ended questions such as *t*-test and ANOVA. The open-ended questions were coded by themes. This chapter also discusses the procedures of collecting data as well as research questions and hypotheses. In the next chapter, results and data analysis will be discussed.

CHAPTER IV: FINDINGS

The purpose of this study was to examine the academic and the social integration of Saudi students who are recipients of the King Abdullah Scholarship Program (KASP) and other scholarship programs that are advised under Saudi Arabia Cultural Mission (SACM). The Saudi students who participated in this study were students currently enrolled in a U.S. higher institution.

Data were collected via Qualtrics, an online survey platform, and included both close-ended and open-ended questions. Survey questions explored factors that influence the persistence of Saudi students in the U.S. colleges and universities based on (personal, psychological, engagement, university, faculty, financial) variables. The survey sought to address the following research questions:

1. What is the nature of academic and social integration of Saudi students in the United States?
2. To what extent do academic and social integration factors explain persistence propensity among Saudi students in the United States?
3. Are there statistically significant differences in the academic and social integration of Saudi students in the United States based on their background (gender, age, marital status, number of children, and income), academic status (scholarship status, visa type, academic level, major, region, and first generation in the scholarship program) and institutional involvement (working on campus)?

An understanding of the academic and social integration of Saudi students can be gleaned from Figure 7. Here you see that overall Saudi student persistence is driven by their academic

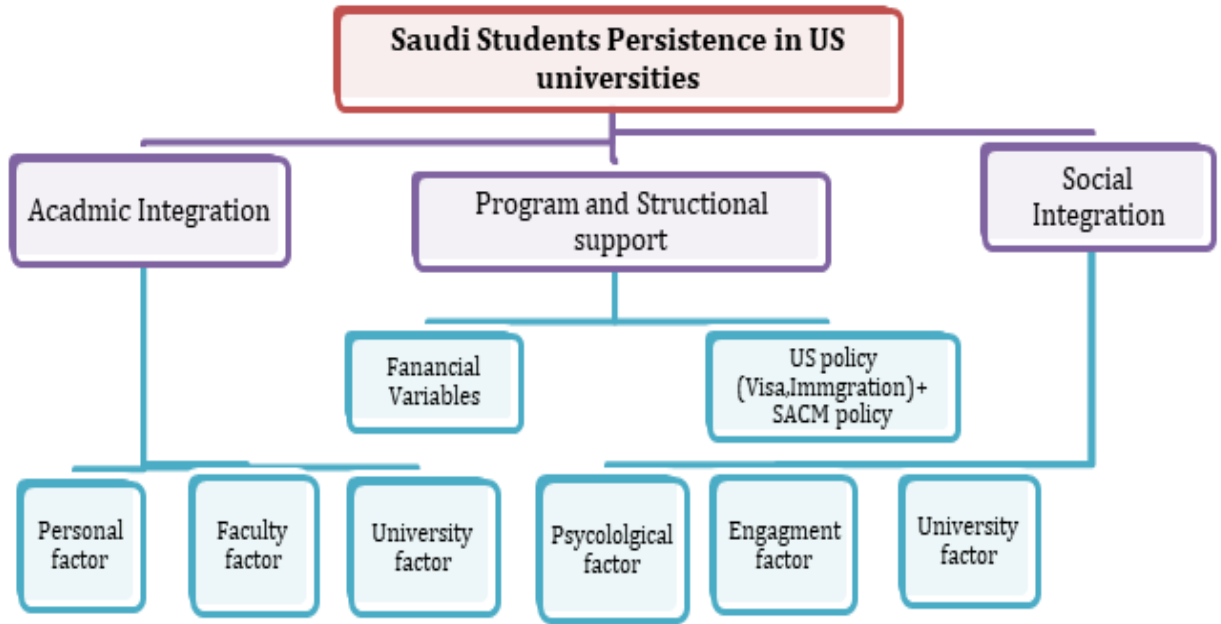


Figure 7. Study model of Saudi students' persistence in U.S. universities.

and social integration, as well as program and structural support. Academic integration includes personal, faculty, and university factors. Social integration includes psychological, engagement, and university factors. Program and structural support include financial support and the U.S. and Saudi policies. These are further described in the findings.

Findings

Participants were Saudi students, enrolled in a U.S. institution during the 2018 fall semester. After cleaning the data, the final sample size was 759 (see Table 7). In total there were 245 females and 514 male participants ranging from 18-20 to over 36 years of age. Nearly one-third of students were in the 26-30 age bracket with about 25% of participants age 25 and younger, signifying an age distribution leaning towards students older than traditionally aged undergraduates. This yield may be a function of sampling technique given the use of Facebook, whose demographic reach is stronger with individuals over the age of 25, as well as snowballing techniques, given the social connections of the researcher. However, the traditionally aged student group is large enough to produce robust findings.

Just over half of participants are married, which stands to reason given the age distribution of the group and strong emphasis of marital bonds in Saudi and Islamic cultures. Almost 60% of participants had no children, however. As such, many of the households were married without children. Most participants with children had just one to two, which may be a function of manageability when studying abroad. The average Saudi household has 4 children (Abdul Salam, Elsegaey, Khraif, & Al-Mutairi, 2014).

In terms of financial support, just over 50% of participant had monthly living stipends of \$1,500 to \$2,000 USD. Near 40% more had stipends of \$2,000 to \$4,000 per month with the

Table 7

Demographics of the Survey Participants

Item	Category	Frequency	Percentage
Gender	Female	245	32.3
	Male	514	67.7
Age	18-20	36	3.8
	21-25	218	23.1
	26-30	281	29.8
	31-35	153	16.2
	36 and more	71	7.5
Marital State	Married	398	52.4
	Single	361	47.6
Number of Children	0	441	58.1
	1-2	224	23.7
	3-4	77	8.2
	5-6	16	1.7
Monthly stipend in US	\$1,500-\$2,000	380	50.1
	\$2,000-\$4,000	303	39.9
	\$4,000-\$6,000	57	7.5
	More than \$6,000	6	.8
Another income	Yes	252	33.2
	No	501	66.0
Funding Education	Students under KASP	414	54.5
	Saudi universities and government employees	199	26.2
	Private sector employees	11	1.4
	Other SACM program	63	8.3
	Medical and health science student	9	1.2
	Self-sponsored student	39	5.1
	Diplomat spouses	4	.5
Visa	F1	670	88.3
	F2	47	6.2
	Other	34	4.5

Table 7 (continued)

Item	Category	Frequency	Percentage
Education Level	English Language program	79	10.4
	1-year certificate program	15	2.0
	2 years college degree (associates)	16	2.1
	Undergraduate	290	38.2
	Graduate	336	44.3
	Other	14	1.8
	Major	Business	148
Communication & Journalism		23	3.0
Computer Science		80	10.5
Education		50	6.6
Engineering		126	16.6
Health		97	12.8
Language & Arts		30	4.0
Law		18	2.4
Mathematics		17	2.2
Other		32	4.2
Science		39	5.1
Security Studies		13	1.7
Social Science		8	1.1
Region		Midwest	286
	Northeast	170	22.4
	Pacific	52	6.9
	South	124	16.3
	Southwest	20	2.6
	West	31	4.1
Family member studied abroad	Yes	382	50.3
	No	369	48.6
Work part-time	Yes	63	8.3
	No	688	90.6

Table 7 (continued)

Item	Category	Frequency	Percentage
Work part-time	Yes	63	8.3
	No	688	90.6
Working hours	1-5	15	2.0
	6-10	14	1.8
	11-15	4	.5
	16-20	24	3.2
	More than 20	1	.1

Note. All percentages may not total 100% due to rounding error.

remainder having over \$4,000 per month. For 66% of participants, these stipends are the sole source of income for living expenses in the United States including housing, transportation, food, childcare, and the like. Only 8.3% of students worked part-time, and most of those worked only 1-5 hours per week.

Regionally, students tended to be distributed in the Midwest (37%), Northeast (22.4%) and South (16.3%). Stipends were not contingent upon the region, yet the cost of living varies significantly by region, especially between the Northeast and the South (Sauter, 2018).

With respect to tuition and fees, 54.5% of this sample were supported by King Abdullah's Scholarship Program, while another significant population, 26.2% were Saudi university and/or government employees. Another 8.3% of students were supported by other SACM programs. Only 5.1% of students were self-sponsored. The remaining 2% of students were medical/ health sciences sponsored or diplomatic spouses. Most participants (88.3%) held F-1 visas, reflecting their student status. A small minority of participants held F-2 visas (6.2%), and 4.5% held other visas that allow international students to study in the United States through short-term, exchange programs such as the J-1 and J-2 visas. Just over half of participants had family members who previously studied abroad (50.3%).

In addition, the vast majority of participants, 82.5% were enrolled in a traditional undergraduate (38.2%) and graduate (44.3%) programs. The distribution of participants in this manner stands to reason given survey distribution techniques as mentioned above. Another 10.4% of students were enrolled in English learning programs with an additional 5.9% enrolled in certificate, associate degree, and other postsecondary programs. The most popular programs among Saudi students were in business (19.5%) and engineering (16.6%). The least popular

programs were in the social sciences (1.1%) and security studies (1.7%). The lack of popularity in these programs may reflect cultural incongruities.

Research Question Analysis

Research Question 1 (RQ1)

RQ1: What is the academic and social integration of Saudi students in the United States?

The purpose of this question was to generally assess the overall academic integration and social integration of Saudi students in the United States. RQ1 was answered using descriptive statistics generated for each question. Vectors for academic integration and social integration were created. Responses to open-ended questions further enhanced the understanding of academic and social experiences contributing to Saudi student academic and social integration.

The researcher ran descriptive statistical analyses (see Table 8) to determine the mean and the standard deviation for each scale (personal, psychological, engagement, university, faculty, and financial). The personal ($M=21.80$, $SD= 3.692$), university ($M=25.77$, $SD=5.32$) and faculty ($M=24.93$, $SD= 4.137$) scales had high means. For personal, this indicates that students have characteristics and motivation that allows them to be able to successfully integrate academically. For the university, this indicates that students have positive perceptions of their institution with regards to the campus and facilities and are also satisfied with the services and resources provided by their institution. For faculty, this indicates that students also have positive perceptions of their faculty members and are satisfied with their interactions with faculty members. Participants responses were divided on the engagement ($M=19.60$ $SD=3.911$), financial ($M=18.82$, $SD=6.534$), and psychological scales ($M=17.44$, $SD=3.461$) resulting in mean scores that fell in between either agreeing or not agreeing with statements. Answers to open-ended survey questions help garner an understanding for each of the academic and social

Table 8

Means and Standard Deviation for All Variables

Variables	Mean	Std. Deviation
Personal	21.80	3.692
Psychological	17.44	3.461
Engagement	19.60	3.911
University	25.77	5.319
Faculty	24.93	4.137
Financial	18.82	6.539

integration domains: Personal, psychological, engagement, university, faculty, and financial.

These are discussed in order of highest to lowest means. In addition, there is one emergent theme regarding U.S. immigration policy that organically arises from the data despite no direct question being asked.

University

Participants were asked to indicate through open-ended questions, in their opinion, what the university does do that helps or prevents them from adjusting and how that affects them. For this question, a lot of Saudi students expressed their satisfaction with the services and resources provided by their universities such as the library, writing center, help center, security system, transportation system, as well as events and activities. One student explains,

The university provides a lot of academic resources such as office hours, tutor hours, supplemental instruction hours and more. Also, there exist a lot of life coaches and general life guidance and assistance.

Another student added in Arabic, that s/he was satisfied because “البيئة التعليمية الممتازة و وسائل الترفيه في الحرم الجامعي” (the excellent educational environment and the entertainment on-campus). For another student, the library/media center was a central component to their satisfaction and integration on campus. S/he explains, regarding the library, that “it provides all kinds of resources such as technology, tools, books and articles, and tutoring.”

For other students, security is of a concern as reports of violence in the United States travel to Saudi Arabia. Several students remarked on their safety and its importance:

“Security of campus at night”

“Set a security parameter around campus, offer free rides from and to campus”

“I know that if I get in anything and I need help the university will help me. So I feel safe”

In addition, some students indicated that university activities help them to integrate into their social and academic life:

“الاهتمام بالطالب ... تقديم خدمات تساعد الطالب على تطوير نفسه أكاديمياً واجتماعياً” (they take care of students, providing useful services that help students to improve socially and academically). Also, another student illustrated his/her feeling by responding that

“دائماً الأنشطة الجامعية المتنوعة تساعد على التكيف و تجعلك تشعر بأن لا فرق بينك و بينهم” (university activities always help to adjust and make me feel like that there are no differences between students).

Students also expressed satisfaction with the way that university deals with international students, especially the services that provided by the international office, for example, “They provide great support for international students.” Also, they think that being in such environment that supports and encourages diversity will help their academic and social integration. One student provided an example, stating “sometimes they do different international events like Saudi nights, Indian night... seeing those students who go through the same situation from different countries help [sic] me a lot to adjust in my new community.” Another student added, “Having more activities for international students and trying to engage them with the community and introduce them to some American students.” One student illustrated on Arabic the benefits of the multicultural environment:

“ني يلودل بالطلل ديفم اذمو هانبتو يفاقثلاو يقرعلا عونتلانضتحتة عم اجل” (the university embraces ethnic and cultural diversity which is very useful for international students). Furthermore, the university helps them to integrate with American students and join some of their celebrations and holidays:

يف يكارش او يل ناكيرم أ دارفأ وأ تالئاع داجي إ يف يندعاسي لانويشانرتن إإا مسق نأ
خلأ...“ “قنقق سكنات لثم تابسانملا

(the international office help me to find American families or friends and they encourage me to participate in holidays such as thanksgiving...etc.)

Also, some students appreciate the welcoming environment that understands the basic needs of Muslim students; for example, some universities have a prayer room and provide halal food and celebrate students' religious holidays. For example, “Providing a prayer room and halal food helps a lot.” In addition, “They are celebrating cultural and religious holidays” which was helpful in showing a spirit of welcomeness.

On the other hand, a few students indicated negative academic and social integration at the university level. One student said s/he had an “unclear plan for an international graduate student about their project and graduation preventing completion.” While this may be a common experience among doctoral and masters' thesis students, the uneasiness with this circumstance emerges in this student's response.

An additional consideration in that many of the participants are graduate students, and many are parents, several seem to lack access to activities on the main campus. Moreover, some students could not participate because of their academic schedule. For example, one student observed “They just offer activities in the main campus but off-campus activities are rare.” Another said, “the arrangements of the conferences and events could matter to me in a way. Having conferences and events at the end of the semester is not a good thing that won't keep adjusted”

Faculty

Regarding faculty, students were asked, from your experience, how do faculty members in your college/ universities help or hinder you in achieving your academic goals? In this question students divided into two groups. The first one, which includes most students, perceives that faculty members offer knowledge, support, and encouragement. Also, they appreciated the way that faculty members deal with international students. They understand their situation and problems as international students and as people with full lives on campus and off. For example, one participant explained how much faculty members helped international students by responding:

ومناك من هم متيقظون ليلا مع دلالا، الكيرم ألعجرا مناشل عتحفاك سان رثكا مه سيردتل مقاط
ت عجر هل لدمحل او، لم ألاتدق فام دعب يثتعبب كسمتا ينولخ دودحلا قاف الاريبك سب
ه عم اجلا ةي حان نم يمام أله سم رومال لك تيقلو مس اردلأ أدبال

(faculty members were the important reason that drew me back to America to continue my education. The unlimited support that I received from them made me not lose hope and give up. Thank God, I am back to study and everything was facilitated by the university)

Another student added, “They are supportive, and they are always there when I need them.” Said another, the faculty, “Support me and understanding that I don’t have any family here to help me with raising my child or helping me with anything that could happen to me or my family.” Yet still, another expressed, the faculty assist by “Trying to take me away from any homesick moments.” Here, faculty support is not merely academic.

However, academic support is clear as well. When asked about faculty, one student stated,

Very broad question. Although in some cases I get most of the help I need from a faculty member of the student advising, some professors, when it comes to class assignments, they tend to give international students subjects that are relative to their background, which makes it easier for us and wonderful for the professors.

In addition, faculty “guide us to use the knowledge and apply it in the real world instead of memorizing. This is a very interesting and authentic education which leads me to deep and comprehensive understanding.” “They suggest related studying materials, offering office hours for any extra help, and can communicate via emails with quick responses.” For at least one student, the equity dimension was important: faculty shows support “by providing equal opportunities for all students whether they are Americans or not.”

A few students offered a different opinion. This group indicated that faculty members in the U.S. universities are not helpful, and they are not culturally competent. Also, some students think that their professors deal with them poorly comparing with their American peers. They made statements such as “Most professors are not culturally competent, unfortunately” and “They don't understand the needs of international students. Just having to learn new words and concepts in English makes it harder for us to take certain subjects. We have to spend three times the time normal students spend just to reach their level.” They also expressed that “They treat us differently to American students. I mean badly,” signaling inequity. In addition, “They try to understand and accommodate my needs but they lack interest in me finishing my studies.” One student found faculty particularly unhelpful when navigating institutional policy. S/he states.

Unfortunately, being the only international student in my department led to dismiss the point that the advisor expects me to know the policy of the academic issue, such as

changing the catalog of my classes. It's something I have no idea about until my classmates told me.

Personal

Students were asked, in your opinion, what are the most personal factors that help or prevent you from completing your study in the U.S. universities? Explain why? Many Saudi students in this study showed a strong desire to achieve their dreams and graduate from their programs. They have motivation, ambition, self-confidence, and a higher level of English that help them to come over all challenges that they have in their study journey. Some of them reported that they can make good progress in their study because they are good at managing time, setting goals, and working hard, as some of them said [sic]:

“I have a big ambition”

“My personal goals motivate me a lot”

“My English is strong and I'm easy going person. I also liked my major which made me wanna learn outside of school”

“Trusting yourself, because when you trust yourself you will be able to do anything in the world”

“What helps me the most is my passion and determination to achieve my goals”.

“Time management-goal clarity”

“I'm an open-minded person so I'd like to learn and develop more universally”

“Knowing the English skills very well helped me a lot”.

“Desire to achieve higher education and the fear of failure both are reasons for me to not quit”

“The internal desire to get the Ph.D. degree which will take me to the next level of success”

“My English level is high which helped me. Also, my undergraduate GPA was high too. I think because I tried hard to get into the university.”

More lengthily, one student explained,

Being close to god and family by heart encourages us Saudis to complete our studies abroad. After that comes the time management, which plays a huge role. I find us Saudis lack the knowledge of time management a lot. Moreover, self-confidence and self-control are as important as the other points I mentioned.

Similarly, many other participants saw family as the biggest source of support and encouragement as a factor in their continued studies. Family wishes, desires, and expectations from them make Saudi students more diligent to make their family proud and to achieve their parents’ dreams by graduating in a foreign country. Some of them said their motivation came from “My family. Because I want to get back home and make them happy and proud of me,” “Support from family is really helpful,” and “my family ambition and my desire to study.” Explaining further, one student said

The trust I carry from my family and siblings in KSA. Because I don’t want them to feel sorry for me and for the trust they gave me, I worked harder to achieve my goal.

Still, another stated,

I received big support from my family. Plus, my desire to get higher education in the field I am studying. Keeping these two factors in my mind gives me the power I need to achieve my goals.

Reflecting specifically on the marital relationship, one student asserts

Having my husband with me, as a family member, and me not being alone was one of the most important factors that helped me to complete my study in the United States. and overcome any obstacles in my way.

Family support to Saudi students is not only limited to helping them achieve their desires, but they are also visiting them, staying with them, and supporting them financially. On the other hand, some students complain that family who live with them in the United States. could affect them negatively, especially if they have children. They said that taking care of children posed challenges. For one participant, a limitation was “Being a parent of more than two kids. Having a wife who doesn’t drive.” This latter limitation may change as the law in Saudi Arabia has changed to permit women drivers.

Even though there are some students with a high level in English proficiency, there are other students struggling because of language proficiency and academic writing. They explain that the “language barrier is a major factor” and that “English skills helps to integrate and get you engaged.” Another student illustrated challenges in academic writing by responding: “اللغة الانجليزية تساعد و الكتابة الأكاديمية تعيق” (the English language helps, but the academic writing prevents).

Additionally, Saudi students have a strong desire to get a better job. Thinking of a future job and the prestige that they can gain from a foreign certificate decreases the chance of them leaving their program. Also, for those who are government or university employees, they believe that it is important to them to get their degree to achieve their job requirements and upgrade or get a higher position when they return home.

“I have to go back to work in KSA”

“To have a better job, I was thinking of better education but not in all of University”

“To get a high income and a great job!”

“Because I want a good education and a good job”

“الرغبة في الترقية لدرجة أستاذ مساعد” (my desire to upgrade to associate professor)

“الرغبة... كوني محاضر في الجامعة” (my desire, I am a lecturer in my university)

“My work requirements to get my degree was the first motivation to face all the obstacles”

Being a continuing rather than a first-generation international Saudi student was found to be particularly beneficial. In the demographic section of the questionnaire, there was an open-ended question asking, did any of your family members (parents, siblings, spouse) have the experience of studying abroad? If Yes or No, please explain how could that affect your own experience of studying abroad? The number of participants who answered this question were 751 students. There were 382 students who answered “yes” and 369 students who answered “No”.

From the participants’ answers, having some family members who had the experience to study abroad has a positive impact on Saudi students who are studying in the United States. “Support,” “encourage,” “help,” “motivate,” “good memories,” “problem-solving,” “easy to adjust,” “learn from their mistakes,” are some of the repeated positive terms that they used to explain how they get benefits from other family members’ experience. The benefits were related to studying issues, culture issues, and living issues. For one participant

Since my mother studied abroad, it gives me a broad understanding of how to manage myself during my stay at the states. Also, receiving advice from a former student helps a lot and ease the experience of studying in the states.

Others shared

“It (having family members who studied abroad before me) has greatly affected my decision making and has definitely helped in making the right choices study-wise.”

“It helps in understanding the new culture and understand the unfamiliar educational life”.

“My father taught me a lot of things that helped me to live here, like how to use the busses.”

“the advising they gave me help me understand how the collages work in the United States. Also, they help me find a house when I just arrived.”

“they helped prepare me to live in a foreign country by explaining to me the culture, laws and living situations.”

On the other hand, some students stated that they did not think of any benefits from having other family members studying abroad. Some of the explanations include that their family member studied in a different period of time and there had been changes since then. Also, some of them mentioned that their family member had the experience in another country:

“لم يؤثر على تجربتي الخاصة لكون دراسته في دولة أخرى” (it doesn't effect on my experience because his study was in another country).

In contrast, some students believe that not having had a family member who studied abroad before is a positive thing. They said they take it as a challenge and they challenge themselves to be better, and they become more independent. Also, they want to make all their families proud by achieving their goals and having their certificates. Because they couldn't come

to the United States easily, they have a strong desire to get the degree. They think that they will be the reason for other family members to study abroad when they see their success.

“بعد ان خضت التجربة في العائلة بعدها بنسبة كبيره من العائلة أرسلوا ابنائهم للدراسة في أمريكا” (after having experienced studying abroad, a lot of my relatives have sent their children to study in the United States)

“أثر إيجابي بحيث يجعلني أكون مرشد لمن يريد الابتعاث من أسرتي مستقبلاً” (it has a positive impact because I will be the advisor of any other scholarship student from my family)

On the other hand, some students explained the negative impact of not having had a family member study abroad before. They think it is hard to be the first member studying abroad in the family, especially in the beginning. Starting with making the decision of applying in the scholarship, taking a long time to figure out what to do, and making a lot of mistakes; some students explained that by responding:

“It could save time when you know someone who studied abroad and his/her obstacles.”

“كان فيه صعوبة بسبب شيء جديد تجربة جديدة ولا فيه شخص أخذ منه نصيحة بالعائلة من تجربته السابقة” (there were difficulties because it was a new experience and there was not any person from my family that s/he could give me advice about previous experiences)

“it was hard at the beginning but now I’m used to it”

Engagement

Students were asked, how do you engage in on-campus academically? And how do you engage in on and off-campus socially? Does your academic and/or social engagement affect your academic progress? How? What could help you to improve your engagement academically? Socially?

Saudi students have engaged in a lot of academic and social activities. They understand the value that they can gain from such activities. They participate in workshops, seminars, conferences, symposiums, and group projects. Also, they join some celebrations, events, and other social gatherings on campus and off campus. They think that they can improve their language and build good relationships that affect their academic progress as well as their social lives. Some of them said:

“Building a relationship with classmates is important on and off-campus especially when a person breaks the ice with others it’s easier to achieve and accomplish something academically and socially”

“I engage on-campus to the extent that I need to in order to do well in my studies, otherwise I don't. I also only engage with people socially on- campus if I need to. At times social engagement on-campus worked well for me and caused me to get a higher grade. I think in order to improve academic and social engagement for me on-campus, the school would have to hold gatherings for international students.”

“I like to engage with other students it helps me improve my language and help me learn about the culture the school and any information that might help me in the future”

Additionally, some students indicate that their social engagement off- campus limited to Saudi friends and Saudi cultural clubs (SCC) because they can eliminate the homesick feeling. They explain:

“My engagement on-campus is kind of limited to class work, but off-campus I spend most of my time with Saudi friends. I believe that I am getting the best of the two worlds actually, because my on-campus interaction helps me overcome any academic

difficulties, while my off-campus interaction with my Saudi friends helps me maintain a good mental health”.

“Academically, I go to the library to study and use any given resources (tutor, career center, etc.) that can help me. Socially, I volunteered to be a mentor for a summer session. Off-campus, I hang out with friends as a stress reliever. I also enjoy playing video games”.

“I’m the events coordinator of my Saudi club at my university, that helps me boost my leadership and social skills, which help me make better friends in university and outside”.

By contrast, some female Saudi students indicated that they cannot participate in some academic or social activities because they do not have enough time with their children. For example:

“Actually, studying and my family take most of my time. Manage my time can help to improve my social engagement”

“No time with 2 kids so I did not”

“اضيق لضفا ايناث يدالوا عمو فس اردلاب لغشنا ينال الوات الكراش مل هذه يلع صرحا ال
ني يدوعسلا عم يتقو”

(I am not interacting on such these activities, first, I am busy with my study and my kids, second, I prefer to spend my time with Saudis)

“I hoped that if I have much chance to be more involved in school’s activity but with my kids and my husband’s study I could not”

Also, some students have another reason that could limit their engagement. English language barriers may prevent some Saudi students from interacting well with others. For example:

“I don’t have communication skills or strong English language. That makes me avoid interactions.”

Financial

Students were asked, do you have any financial difficulty during your study? Can you explain? If you recall in the quantitative data, there was a wide degree of variation on this variable. However, most of the students who answered this question confirmed that they have financial difficulty. There are several reasons that affected their financial situation such as: having children, living in an expensive state, needing study materials, self-sponsored...act. A lot of the participants who answered this question are parents and they have kids; some of them have more than one child, which requires more money, especially for the daycare, as the following participants said:

الصعوبة التي تواجهني هي مصروف الاطفال لا يكفي اذا كنت احتاج حضانة لطفلي لان المصروف المقدم للطفل اقل بكثير من ابسط احتياجاته

(The difficulties that I have faced is kids' expenses not enough when I need daycare, the expenses less than my child basic needs)

عدم القدرة على ادخال اطفالي لحضانات اطفال. مما انعكس سلباً على نفسياتهم و شخصياتهم حيث أصبحوا حبيسين داخل شقة صغيرة وقد انعكس اثر ذلك السلبي على نفسيتي وتحصيلي الدراسي مع الأسف

(I am not able to put my kids in a daycare which affected them negatively because they are locked up in a small apartment. Unfortunately, that affected my psyche and my academic development negatively)

Saudi students who are not sponsored by the government readily expressed their financial stress.

”نعم، على حسابي الخاص ولم يتم قبولي حتى الان. ولا أستطيع الذهاب للجامعات الموصى بها بسبب الدفع“

(Yes, I am self-sponsored, and I can't get admitted to any recommended universities that SACM required)

“Yes! I've been in the U.S. since 2015 and I'm still not sponsored by SACM”

In addition, students who live in expensive states are suffering financially, as stipends do not account for variations in living expenses: Rent, taxes, transportation, and daycare, to name but a few. For example, some students answered:

“Yeah, it is not enough in Chicago. The city is literally expensive”

“I live in Northern VA which is considered expensive in terms of rent and property tax”

“نعم، صعوبات مالية ضخمة في حضانات الاطفال وايضاً المعيشة في الولايات المرتفعة السعر”

(yes, we have huge financial difficulties in kid's daycare and living expense in the high-cost states)

“There are huge financial difficulties in the daycare and the living in expensive states”

Additionally, students mentioned that they cannot save money for emergencies such as car accidents and medical issues. For example:

“Yes, I have had an accident with a drunk driver who didn't have insurance. My car is unrepairable, and I lost a lot of money and time.”

“No savings for emergency”

As a result, some students decided to work as part-time to face the financial issues for example:

“Yes, living in the U.S. is quite expensive and this is why I had to work as TA on-campus”

“I had difficulty before I got a paid GRA position”

However, work opportunities are not always available:

“الدخل المادي لا يكفي، ولا نستطيع العمل خارج الحرم الجامعي، و الحصول على وظيفة داخل الحرم صعب جدا”

(the monthly income is not enough and we can't work off-campus and getting a job on-campus so hard)

With regard to the need to work within the context of a family's living expenses, one student shared,

Yes, a lot and more than a lot. Moving in, furniture, and starting to live expenses a lot but the scholarship doesn't cover or even keep that in their minds. They even cut the sometimes with no understanding of what the student struggles with. We got into many financial problems because of SACM and they knew they were wrong after we got charged for our apartment, insurance, bills. My husband worked in-campus for one semester in a part-time job just to cover our transportation expenses but after that, he couldn't find a job because opportunities are limited on campus and I cannot work to take care of my baby and focus in studying.

Moreover, some students stated they were struggling financially because of courses materials, books, research traveling. Some participants answered:

“Yes, every new semester I struggle financially because I have to pay for textbooks. It is hard to save money for emergencies since we pay for expensive gas, rent, and electricity!”

“Yes. My professor wants 10,000 \$ for research materials and my university cannot pay for that only for tuitions”

“Travel for research purposes is only covered one time while I need to gather more data I need to travel more than that”

On the other hand, there are some students who do not have financial difficulties due to some reasons such as: living in small town, having financial support from family, managing and planning their money well...some of them answered:

“No, I get help from my parents back home and I think if I didn’t I might have difficulty”

“No, my father sends me money when I need it.”

“No, I live in a small town and it’s not expensive at all and it covers all my expenses and more.”

“Not in North Carolina. But I’ve heard other people suffer on other states.”

Herein lies the significance in the cost of living among regions. The cost of living in Chicago is 29% higher than Raleigh (Nerdwallet, 2018).

As such, the difference in the financial stress between this participant and the Chicago respondent above is palpable as stipends do not vary by region.

Psychological

Students were asked, from your experience, what are the psychological factors that affect you the most and explain how they influence your academic life? There were a lot of reasons why Saudi students are under pressure. Some of these reasons are related to their family, their study, or their new life. Homesickness and missing family, especially on the holidays, were the most common psychological factors that affect Saudi students’ social and academic lives. Sadly, some students indicated that some of their family members passed away during their time studying in the United States. They explained their experiences as follows:

“Occasionally I feel homesick, also sometimes I feel pressured from school and my personal life’s tasks which make feel like I’m going to give up studying in the U.S.”

“يلا علكش ب ن طولل نين ح ب س ح ا ناض مرو داي ع ال ل لثم ت اب س ان م ة يدوع س لا يف ن اك اذا” (if there is any celebrations or holidays in Saudi Arabia such as Eid or Ramadan I really feel homesick)

“Losing both my parents while I’m studying here let want to go back asap stop everything”

Additionally, some Saudi students were worried about grades, course requirements, GPA, graduate admissions, ILETS, TOFEL, and GRE scores, as well as their relationship with faculty members or classmates. For one student who studied abroad for undergraduate and graduate education,

Being in schools for so many years may negatively affect me. I started my undergraduate degree in 2008, and now I'm still a student. Sometimes, I feel I should take a break few years and come back to continue my education. However, I don't think that is possible since I already have started my Ph.D. program.

Others expressed

“Sudden depression after getting a low grade on something that I worked really hard for”

“stress for difficult courses and overload of assignments and school work”

“The stress of studying and understanding the English language in high level. Living away from the family balance between study and personal life”

“Feeling hopeless to keep working well when getting sick or have a difficult situation, have only 1-2 Saudi friends but from different major so, alone in my major with Indian students work in groups and nobody really can help without any benefit back”

“Most people in research lose time because they are going nowhere, for a student like me time is crucial but my advisor does not care about time”

“The high pressure from professors make me feel disappointed about my academic life.

However, being surrounded by my Family and Saudi friends make me feel better and encourage me to perform better at school”

Furthermore, some students were stressed by futuristic thinking: one’s future job, the future of her/is kids (regarding kids’ education, daycare, and identity), etc. Also, the financial issues, health issues, and their life duties were reasons to make them feel anxious.

They showed these difficulties in their own words:

كلذ دجاو لافطا ثالث يدل يلح لثم مه نمل خصوصاً بل اطلال لخد فعضو يدامل ا روصق ل

”ةيلام ةقئاض يل ببسي

(financial difficulties especially, for people like me with three kids)

“Being a wife and a mother makes me stressful”

“Being a mom and the guilt that comes with being away from my child. Second is lack of family support”

“I believe that anxiety affects me the most. Even if time was not an issue, anxiety makes you hasten your actions, which makes you lose unnecessary time. Also, anxiety can lead to depression that directly affects my academic life.”

مهفت ىلع لمعلا ، سرددل ادعب جمارب يف مهطارخا و مهميلعت و لافطالا ةيرسال اتاطبترال
ةريثكلا تابطللا ، نطولل مدوعلل مهبلط و صقنلاب مهروعش مدعلا انبالا و ةجوزلا ةيسفن
و يذلك ، روصق يادخي ال ىتح ادج زاتم لكشب بلطتم لك ميلست يف ةبغرلا و ةدام لك
ىوتسملا ىلع يباچي و ايبلس لكشب رثات دق ام يتييسفن ىلع رثات

(family’s issues such as the kids, their education, after-school programs, also, trying to understand my wife and my kids and take care of them and make sure that they don’t feel

bad because they are homesick. In addition, course requirements and trying to do everything on time. All of that has affected me psychologically)

نعلم عاا ال رخال رمال او ءجال ال ففك ال ءأالف ال او لروو وون ءوال و فف شوعا انا ءال روال
ءءاهش ال قوقح و ءال ال ءعب نطوال ال ءءوع ال او ءرءال ءعب فررم

(life issues, I am living in NY and my stipend is not enough. Also, I am worried about what will happen to me after graduation and when I get back home)

راعسال او لافطال اب ءال اب مامءءءءو ال ءل ءل ءل ءل ال فف ءكء نم هبل ع فف و ءل فط
فءوز ءءعب ءءءنا ءرف رخال ببسل او فسال ال اب ضارمال رءكف و نمءل ءظه اب

(my child, I worry when I put him in the daycare because they don't take care of him very well even with the high cost. Another reason is the scholarship of my husband not being extended)

Also, some Saudi students feel anxiety about fitting in to American society. These students expressed that they did not feel welcome. Culture shock was also influential in their propensity to persist:

“The American culture especially when it comes to relationships. We come from a different culture where it is easier to make new friends and socialize, but here in the U.S. everyone seems distance.”

“Loneliness and culture shock are the hardest two factors that are hardest to deal with. In turn, these two factors might cause you to become momentarily depressed and in turn affect your academic achievements.”

“Fear of rejection, being out of the group and not fitting with locals keeps me alone most of the time and effects my emotions which in turn effects my studying abilities.”

“being not welcomed by my fellow Americans students”

“What affects the most is the huge intellectual gap between me and the average American individuals, it influences my academic life by setting limits as to how to interact with them.”

Yet, some Saudi students explained how they overcame psychological factors, largely attributing their resilience to being close to (Allah) and having good friends.

"being with good Saudi friends could boost you emotionally and psychologically which contribute to the outcomes of your academic life"

"Living all seasons, and praying peacefully have a great influence to push me away from negativity"

SACM Regulation and U.S. Immigration Policy

Even though the survey did not have a specific question for SACM regulations and U.S. immigration policy, a lot of students mentioned these two reasons as factors that could prevent them from completing their education in the United States in any time. Also, these two factors keep Saudi students worried about something out of their control. These are some responses:

“Not renewing my Visa or if my country got to war with the U.S.”

ةدق عمل اةيق حل مل اةمظنا وه ينق يعي ام ةق يق حل ا ، ري تس جاملا لىل ع لوص حل لواح او فظومك ان
مش يعن يذلا ع قاول لىل ع ةين بم ريغو ةس وردم ريغل او

(I am as an employee who wants to get the master degree, actually what prevents me is complicated SACM rules)

“Immigration issues, payment issue, SACM”

“The roles of the embassy”

“يتس ارد لامك! نم ين عنمي هيق حل مل ا يف يس اردل ا فر ش مل ا” (my academic advisor in SACM prevents me from continuing my study)

“Because my visa expires they want not to renew it”

These factors emerge beyond the scope of individual college and university campuses, and there are limits to what assistance institutions can provide in these areas of concern.

Research Question 2 (RQ2)

RQ2: To what extent do academic and social integration factors explain persistence propensity among Saudi students in the United States? To answer this question, the researcher ran an ANOVA and linear regression to measure variation in student propensity to persist and predict Saudi students' persistence based on personal, psychological, engagement, university, faculty, and financial factors. The propensity of Saudi students to persist was examined utilizing student responses to the question (i.e. I have a strong desire to achieve my goal and graduate from my program), and the answer to this question was Yes or No. The academic integration measured by personal, faculty, university variables, as well as the social integration, was measured by psychological, engagement, and university variables (see Figure 8). Results indicate that there is a statistically significant difference in the propensity of students to persist by their academic and social integration. With respect to the ANOVA, the mean squares within (regression) are greater than the mean squares without (residual), producing a strong and statistically significant different result ($F(6, 242)=48.535, p \leq 0.0001$). The regression analysis further pinpoints where among the vectors differences lie. Of all the vectors, only personal is statistically significant and it is strong ($\beta=0.235[0.015], t=15.524, p \leq 0.0001$). This model, Model 1, explains 54.6% of the variance in student propensity to persist (see Table 9).

Table 9

ANOVA and Regression Results

Model 1	Unstandardized Coefficients		Standard Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	.231	.456		.506	.613
Personal	.235	.015	.727	15.524	.000*
Engagement	.002	.013	.010	.180	.857
University	.006	.011	.035	.596	.551
Faculty	-.002	.014	-.009	-.157	.875
Financial	.000	.007	.002	.046	.963
	Sum of Squares	df	Mean Square	F	Sig.
Regression	134.146	6	22.358	48.535	.000 ^b
Residual	111.476	242	.461		
Total	245.622	248			
	R	R Square	Adjusted R	Std. Error of the Estimate	
	.739*	.546	.535	.679	

Note. Dependent Variable: Persistence.

Research Question 3 (RQ3)

RQ3: Are there statistically significant differences in the academic and social integration of Saudi students in the United States based on student background (gender, age, marital status, number of children, and income); student academic status (scholarship status, academic level, major, region, type of visa, and first generation in the scholarship program); and institutional factors (working on campus, and hours of working)? ANOVA was used to analyze the influence of these factors that have more than two means, on student academic integration and student social integration. Also, an independent samples t-test was used to compare bivariate independent variables.

H_0 RQ3: There is no statistically significant difference in the academic or social integration of Saudi students by student background, academic status, or institutional factors. *F*-scores and *t*-values were analyzed for statistical significance at $p \leq 0.05$. Statistically significant differences in student academic and social integration found were as follows:

- By gender, with respect to student engagement
- By age and number of children with older and students with more children having more positive perceptions of faculty support
- By major with business and engineering students having more negative perceptions of faculty support
- By marital status with respect to student engagement and faculty, by scholarship status with respect to financial support
- By academic level with respect to personal factors and financial support
- By working status with students who were working having higher perceptions of personal and university support. This perception is positively associated with more

working hours, with perceptions of personal support being strongest among students who worked more.

In only these cases can the null be rejected. In all other cases, the null hypothesis is not rejected. These results are further detailed, discussed and summarized below.

Gender

Gender was examined to see if there is statistical significance between Saudi students' responses based on their gender. An independent samples t-test was used to compare the two means. Table 10 shows the comparison of all variables by gender. There was a significant difference between male and female on the engagement variables. The mean of male ($M= 19.91$, $SD=3.768$) was higher than female ($M=18.85$, $SD=4.155$; $t(442)= -2.635$, $p=0.009$), indicating that male students were more engaged at their institution than female students. No other statistically significant differences were found.

Age

A one-way ANOVA was used to see if there was a statistic significance between the six factors based on the age. From Table 11, there was a statistically significant difference on Saudi students' responses in the faculty variables at $p<.05$ level for the three conditions [$F(4,390) = 4.271$, $p = 0.002$]. To determine which group has the difference, a post-hoc test was run. Table 12 shows the post-hoc result for the significant group. The difference came from the group of Saudi students who were 36 years old or more. They had the highest mean $M =27.09$ in faculty variables, comparing to the groups 21-25 ($M = 24.21$, $p = 0.001$), 26-30 ($M = 24.97$, $p = 0.023$), 31- 35 ($M = 24.87$, $p = 0.027$). Other variables did not show any significant differences.

Table 10

T-test Results Comparing Female and Male on All Persistence Variables

Variables	Female			Male			t-value	p-value
	N	M	SD	N	M	SD		
Personal	134	21.80	4.013	312	21.80	3.552	-.007	.99
Psychological	131	17.72	3.572	321	17.32	3.413	1.097	.27
Engagement	130	18.85	4.155	314	19.91	3.768	_-2.635	.009*
University	117	25.65	5.245	289	25.81	5.357	-.280	.78
Faculty	118	25.08	4.239	277	24.87	4.098	.461	.64
Financial	100	17.99	6.517	237	19.18	6.530	_-1.526	.12

Note. * $p < .05$.

Table 11

ANOVA Result for Age Groups

Variables	Groups	N	M	SD	DF	F-value	p-value
Personal	18-20	13	20.77	5.118	(4,441)	1.809	.126
	21-25	126	21.66	3.267			
	26-30	161	21.85	3.499			
	31-35	102	21.48	4.371			
	36 and more	44	23.07	3.165			
Psychological	18-20	14	17.86	3.527	(4,447)	.227	.923
	21-25	123	17.38	3.418			
	26-30	170	17.44	3.543			
	31-35	100	17.60	3.324			
	36 and more	45	17.09	3.655			
Engagement	18-20	14	18.00	3.903	(4,439)	2.280	.060
	21-25	120	20.00	3.773			
	26-30	166	19.75	4.031			
	31-35	98	18.81	3.910			
	36 and more	46	20.22	3.596			
University	18-20	11	25.09	7.341	(4,401)	1.429	.224
	21-25	114	25.54	5.685			
	26-30	146	25.71	5.133			
	31-35	91	25.37	5.523			
	36 and more	44	27.52	3.540			
Faculty	18-20	10	23.30	3.335	(4,390)	4.271	.002*
	21-25	107	24.21	4.153			
	26-30	143	24.97	4.156			
	31-35	92	24.87	4.220			
	36 and more	43	27.09	3.301			

Table 11 (continued)

Variables	Groups	N	M	SD	DF	F-value	p-value
Financial	18-20	8	18.88	9.687	(4,332)	.258	.905
	21-25	77	18.71	5.677			
	26-30	120	18.73	6.709			
	31-35	92	19.34	6.788			
	36 and more	40	18.15	6.538			

Note. *p<.05.

Table 12

Post-Hoc Test for Age Groups

Faculty	Age	SE	p-value
36 and more	18-20	1.429	.063
	21-25	.735	.001*
	26-30	.708	.023*
	31-35	.752	.027*

Marital Status

Similar to gender, the statistical significance by the marital status was measured by an independent samples *t*-test. As seen in Table 13, the responses of Saudi students show statistical significance at $p < .05$ in the engagement variables and the faculty variables based on the marital status. For engagement, single students were more likely to engage with others ($M = 20.24$, $SD = 3.886$) than married students ($M = 19.01$, $SD = 3.848$; $t(442) = -3.364$, $p = .001$). On the other hand, Saudi students who are married had the highest mean ($M = 25.35$, $SD = 4.117$) in their opinion about faculty variables more so than single students ($M = 24.44$, $SD = 4.117$); $t(393) = 2.182$, $p = .030$.

Number of Children

One-way ANOVA was used to examine the relationship between student responses regarding a number of children. In Table 14, the three groups show significant differences in faculty variables at [$F(2,391) = 6.038$, $p = .003$]. Since p was significant, a post-hoc test was run to see which group had the effect. From Table 15, the students who have more than 3 children were able to get more support from faculty ($M = 27.19$) more so than the group with no kids ($M = 24.38$).

Students Income

In the survey, there were two questions regarding student income; the first one was about the stipend, and the other question was about whether they have another income or not. To see the statistical significance between the means of the stipend, a one-way ANOVA was used. As shown in Table 16, there were no statistical significances in all variables based on the stipend that students earn.

For students' other income, the answer was Yes/No, so an independent samples *t*-test was used to compare the means. Table 17 shows no statistical significance at ($p < .05$).

Table 13

T-test Results Comparing Married and Single on All Persistence Variables

Variables	Married			Single			t-value	P-value
	N	M	SD	N	M	SD		
Personal	237	21.96	3.797	209	21.62	3.569	.984	.33
Psychological	233	17.48	3.260	219	17.40	3.669	.243	.81
Engagement	231	19.01	3.848	213	20.24	3.886	-3.364	.001*
University	217	25.95	5.042	189	25.56	5.626	.744	.46
Faculty	212	25.35	4.117	183	24.44	4.117	2.182	.030*
Financial	222	19.20	6.621	115	18.10	6.344	1.458	.14

Note. * $p < .05$.

Table 14

ANOVA Result for Number of Children Groups

Variables	Groups	N	M	SD	DF	F-value	p-value
Personal	0	250	21.58	3.737	(2,443)	1.233	.292
	1-3	173	22.03	3.590			
	More than 3	23	22.52	3.918			
Psychological	0	258	17.44	3.640	(2,448)	.346	.708
	1-3	169	17.50	3.268			
	More than 3	24	16.88	2.879			
Engagement	0	252	19.87	4.008	(2,440)	1.375	.254
	1-3	168	19.24	3.718			
	More than 3	23	19.30	4.215			
University	0	228	25.74	5.474	(2,403)	.087	.916
	1-3	155	25.74	5.256			
	More than 3	23	26.22	4.242			
Faculty	0	216	24.38	4.149	(2,391)	6.038	.003*
	1-3	157	25.37	4.047			
	More than 3	21	27.19	3.763			
Financial	0	144	18.63	6.375	(2,334)	.193	.825
	1-3	173	19.03	6.735			
	More than 3	20	18.40	6.227			

Note. *p<.05.

Table 15

Post-Hoc Test for Number of Children

Faculty		SE	p-value
More than 3	0	.935	.008*
	1-3	.950	.135

Table 16

ANOVA Result of Students Stipend Groups

Variables	Groups	N	M	SD	DF	F-value	P-value
Personal	\$1500-\$2000	210	21.57	3.695	(3,437)	.541	.654
	\$2000-&4000	187	21.96	3.891			
	\$4000-\$6000	41	22.05	2.889			
	More than \$6000	3	23.00	3.464			
Psychological	\$1500-\$2000	210	17.44	3.538	(3,443)	.542	.654
	\$2000-&4000	191	17.48	3.523			
	\$4000-\$6000	42	17.50	2.839			
	More than \$6000	4	15.25	3.202			
Engagement	\$1500-\$2000	209	20.00	3.778	(3,435)	1.538	.204
	\$2000-&4000	187	19.25	3.967			
	\$4000-\$6000	39	19.05	4.489			
	More than \$6000	4	19.00	2.160			
University	\$1500-\$2000	187	25.45	5.668	(3,397)	.770	.511
	\$2000-&4000	170	26.21	5.260			
	\$4000-\$6000	40	25.58	3.775			
	More than \$6000	4	24.00	5.944			

Table 16 (continued)

Variables	Groups	N	M	SD	DF	F-value	P-value
Faculty	\$1500-\$2000	186	24.64	4.066	(3,388)	.639	.591
	\$2000-&4000	164	25.15	4.358			
	\$4000-\$6000	38	25.42	3.446			
	More than \$6000	4	25.00	5.228			
Financial	\$1500-\$2000	137	17.67	6.156	(3,331)	2.490	.060
	\$2000-&4000	157	19.32	6.810			
	\$4000-\$6000	37	20.41	5.918			
	More than \$6000	4	19.25	8.057			

Table 17

T-test Results Comparing Saudi Students with Another Income and Without on All Persistence

Variables

Variables	With another income			Without other income			t-value	p-value
	N	M	SD	N	M	SD		
Personal	163	21.88	3.861	282	21.76	3.602	.342	.73
Psychological	170	17.39	3.387	281	17.46	3.513	-.210	.83
Engagement	161	19.28	3.910	282	19.77	3.909	1.278	.20
University	148	25.42	5.206	258	25.97	5.382	-.996	.32
Faculty	144	25.43	4.227	251	24.64	4.064	1.830	.07
Financial	124	19.15	6.769	213	18.63	6.410	.703	.48

Scholarship Status

Because some groups had fewer responses, the researcher recoded the scholarship status groups by grouping the medical program with Saudi universities and government employees and diplomat spouse with other SACM programs in the other group. To see the statistical significance for the remaining four groups, One-way ANOVA was run (see Table 18). The result shows a statistical significance in the financial variables [$F(3,329) = 3.624, p = .013$]. Post-hoc was used to see the group that showed the significance (see Table 19). Saudi students who are employees in Saudi universities or government had the highest mean ($M = 19.98$) compared to self-sponsored students ($M = 14.83$) in the financial variables ($p = .010$). Other variables were not statically significant.

Academic Level

One-way ANOVA was used to compare the mean of the six groups. As Table 20 shows there are statistical significances in the two variables personal [$F(5,440) = 2.629, p = .023$] and faculty [$F(5,389) = 2.369, p = .039$]. For the personal variables, a post-hoc (LSD) test was run to see which group drove this significance. Table 21 shows that Saudi graduate students have the highest mean ($M = 22.35$) compared to 2-year certificate degrees ($M = 19.22, SE = 1.24$) and undergraduate ($M = 21.41, SE = .371$). The post-hoc test was also running (see Table 22) to see which group was different from the other group. Also, Saudi graduate students ($M = 25.51$) were more satisfied with faculty interaction than Saudi undergraduate students ($M = 24.24, SE = .441$).

Major

A one-way ANOVA was conducted to compare the means of all variables regarding Saudi students' majors (see Table 23). The result of the test shows that there are statistical significances in faculty variables [$F(7,365) = 2.051, p = .048$]. A post-hoc test was used to see

Table 18

ANOVA Result of Scholarship Status Groups

Variables	Groups	N	M	SD	DF	F-value	p-value
Personal	KASP Students	239	21.60	3.844	(3,436)	1.498	.214
	S.A. Universities and government employees	136	22.31	2.935			
	Other SACM program	40	21.73	3.457			
	Self-sponsored	25	21.00	5.715			
Psychological	KASP Students	243	17.28	3.714	(3,446)	.392	.759
	Universities and government employees	141	17.67	3.053			
	Other SACM program	39	17.44	3.370			
	Self-sponsored	27	17.44	3.332			
Engagement	KASP Students	245	19.94	3.755	(4,437)	1.787	.149
	Universities and government employees	130	18.97	3.880			
	Other SACM program	40	19.50	4.443			
	Self-sponsored	26	19.46	4.366			
University	KASP Students	228	25.48	5.406	(3,399)	.648	.585
	Universities and government employees	120	25.79	4.851			
	Other SACM program	30	26.83	5.305			
	Self-sponsored	25	26.12	6.373			

Table 18 (continued)

Variables	Groups	N	M	SD	DF	F-value	p-value
Faculty	KASP Students	217	24.75	4.157	(3,387)	1.141	.332
	Universities and government employees	119	25.39	3.971			
	Other SACM program	32	24.03	3.720			
	Self-sponsored	23	24.91	5.143			
Financial	KASP Students	182	18.53	6.116	(3,329)	3.624	.013*
	Universities and government employees	105	19.98	6.405			
	Other SACM program	28	18.25	7.235			
	Self-sponsored	18	14.83	8.424			

Note. *p<.05.

Table 19

Post-Hoc Test for Scholarship Status Groups

Financial		SE	p-value
Universities and government employees	KASP Student	.790	.256
	Other SACM program	1.370	.587
	Self-sponsored	1.644	.010*

Table 20

ANOVA Result of Students' Academic Level Groups

Variables	Groups	N	M	SD	DF	F-value	p-value
Personal	English Language program.	34	21.12	3.608	(5,440)	2.629	.023*
	1-year certificate program	5	21.80	2.864			
	2 years college degree (associates)	9	19.22	4.969			
	Undergraduate	175	21.41	3.834			
	Graduate	218	22.35	3.390			
	Other	5	20.60	6.656			
Psychological	English Language program.	36	17.22	2.674	(5,446)	.778	.566
	1-year certificate program	7	15.57	1.397			
	2 years college degree (associates)	8	17.00	1.773			
	Undergraduate	175	17.33	3.838			
	Graduate	220	17.60	3.351			
	Other	6	18.83	3.125			
Engagement	English Language program.	37	20.41	4.304	(5,438)	1.894	.094
	1-year certificate program	6	18.33	4.676			
	2 years college degree (associates)	8	19.25	4.621			
	Undergraduate	174	20.12	3.933			
	Graduate	213	19.07	3.739			
	Other	6	20.17	3.656			

Table 20 (continued)

Variables	Groups	N	M	SD	DF	F-value	p-value
University	English Language program.	33	26.70	4.896	(5,400)	1.494	.191
	1-year certificate program	6	24.83	5.193			
	2 years college degree (associates)	6	21.67	7.528			
	Undergraduate	160	26.05	5.581			
	Graduate	198	25.47	5.089			
	Other	3	29.67	2.082			
Faculty	English Language program.	28	25.46	3.958	(5,389)	2.369	.039*
	1-year certificate program	6	25.50	2.429			
	2 years college degree (associates)	6	22.83	5.707			
	Undergraduate	156	24.24	4.066			
	Graduate	194	25.51	4.147			
	Other	5	22.80	3.421			
Financial	English Language program.	29	19.93	7.126	(5,331)	.685	.635
	1-year certificate program	6	19.17	5.115			
	2 years college degree (associates)	6	17.83	2.714			
	Undergraduate	115	18.00	6.583			
	Graduate	178	19.21	6.555			
	Other	3	18.33	6.506			

Note. *p<.05.

Table 21

Post-Hoc Test (LSD) for Level of Education

	Personal	SE	p-value
Graduate	English Language program	.675	.068
	1-year certificate program	1.655	.738
	2 years college degree (associates)	1.244	.012*
	Undergraduate	.371	.012*
	Other	1.655	.290

Table 22

Post-Hoc Test for Level of Education

	Faculty	SE	p-value
Graduate	English Language program	.829	1.000
	1-year certificate program	1.700	1.000
	2 years college degree (associates)	1.700	.616
	Undergraduate	.441	.047*
	Other	1.858	.691

Table 23

ANOVA Result of Students Major Groups

Variables	Groups	N	M	SD	DF	F- value	p-value
Personal	Business	87	21.01	4.591	(7,409)	1.822	.082
	Language & Communication	30	22.77	2.445			
	Math & Science	78	22.22	2.612			
	Education & Social studies	43	22.72	3.195			
	Engineering	82	21.80	2.800			
	Health	68	21.79	4.437			
	Law	17	21.00	4.783			
	Other	12	23.25	1.815			
112 Psychological	Business	91	17.47	3.778	(7,413)	.636	.726
	Language & Communication	31	17.23	3.149			
	Math & Science	81	17.27	3.279			
	Education & Social studies	41	17.59	3.585			
	Engineering	78	17.44	3.048			
	Health	68	17.21	3.552			
	Law	20	18.00	3.464			
	Other	11	19.27	2.102			

Table 23 (continued)

Variables	Groups	N	M	SD	DF	F- value	p-value
Engagement	Business	90	19.58	4.227	(7,408)	.551	.796
	Language & Communication	29	19.86	3.378			
	Math & Science	82	19.71	3.927			
	Education & Social studies	42	19.31	3.396			
	Engineering	79	19.33	3.775			
	Health	67	19.64	4.420			
	Law	17	20.00	2.937			
	Other	10	21.70	2.791			
University	Business	80	25.99	6.054	(7,374)	.333	.939
	Language & Communication	28	26.00	4.055			
	Math & Science	71	25.56	4.968			
	Education & Social studies	43	25.86	4.688			
	Engineering	73	25.21	5.523			
	Health	62	25.45	5.168			
	Law	16	27.06	5.144			
	Other	9	26.11	3.983			

Table 23 (continued)

Variables	Groups	N	M	SD	DF	F- value	p-value
Faculty	Business	76	23.95	4.934	(7,365)	2.051	.048*
	Language & Communication	26	26.19	2.417			
	Math & Science	73	24.56	4.177			
	Education & Social studies	39	25.56	3.523			
	Engineering	69	24.17	3.854			
	Health	64	25.63	4.169			
	Law	18	26.28	3.739			
	Other	8	25.25	4.234			
Financial	Business	70	19.24	6.511	(7,307)	.536	.807
	Language & Communication	25	18.20	5.972			
	Math & Science	56	19.38	6.917			
	Education & Social studies	39	18.23	5.865			
	Engineering	56	18.32	6.385			
	Health	43	18.30	6.501			
	Law	16	20.38	6.965			
	Other	10	20.90	7.965			

Note. *p<.05.

which groups were different from each other (see Table 24). The result shows that business and engineering Saudi students were less satisfied about faculty support than other majors, with the lowest means in business ($M=23.95$) and engineering ($M=24.17$).

Region

As seen in Table 25, the result of One-way ANOVA shows no statistical significance in all variables based on the region.

Type of Visa

From Table 26, the independent t-test shows no statistical significance based on Saudi students Visa type.

First Generation

Table 27 showed no statistical significance at $p < .05$ for all variables regarding the Saudi students with family members who experienced studying abroad.

Working Part-Time

The independent t-test showed a statistical significance in two variables (see Table 28). The first one was the personal variables. Saudi students who were working part-time had the highest mean ($M=23.07$) compared to not working Saudi students ($M= 21.66$). The second one is the university variables. Saudi students who were working part-time had the highest mean ($M=28.30$) compared to not working Saudi students ($M=25.49$).

Working Hours

Also, independent t-test was run to see the effect of working hours on students' persistence. The result in Table 29 shows the statistical significance at ($p=.006$) in the personal variables. Saudi students who were working 11-20 hours had the highest mean ($M=23.80$) compared to students who were working 1-10 hours ($M=22.00$).

Table 24

Post-Hoc (LSD) Test for Major

	Faculty	SE	p-value
Business	Language & Communication	.934	.017*
	Math & Science	.674	.362
	Education & Social Studies	.810	.047*
	Engineering	.684	.741
	Health	.697	.017*
	Law	1.078	.031*
	Other	1.528	.394
Engineering	Business	.684	.741
	Language & Communication	.946	.034*
	Math & Science	.690	.575
	Education & Social Studies	.823	.092
	Health	.713	.043*
	Law	1.088	.054
	Other	1.535	.484

Table 25

ANOVA Result of Region Groups

Variables	Groups	N	M	SD	DF	F- value	p-value
Personal	Midwest	176	21.76	3.748	(5,403)	.960	.442
	Northeast	93	21.55	3.769			
	Pacific	32	22.22	2.419			
	South	76	21.72	3.804			
	Southwest	12	23.58	1.676			
	West	20	22.55	2.089			
Psychological	Midwest	175	17.77	3.425	(5,408)	1.195	.311
	Northeast	97	17.42	3.685			
	Pacific	32	16.47	2.951			
	South	76	16.99	3.512			
	Southwest	12	17.58	3.942			
	West	22	17.95	2.627			
Engagement	Midwest	172	19.76	3.936	(5,401)	1.997	.078
	Northeast	98	18.70	4.019			
	Pacific	30	20.90	3.418			
	South	76	19.84	3.745			
	Southwest	10	19.50	5.126			
	West	21	18.81	3.043			

Table 25 (continued)

Variables	Groups	N	M	SD	DF	F- value	p-value
University	Midwest	172	19.76	3.936	(5,368)	1.318	.255
	Northeast	98	18.70	4.019			
	Pacific	30	20.90	3.418			
	South	76	19.84	3.745			
	Southwest	10	19.50	5.126			
	West	21	18.81	3.043			
Faculty	Midwest	153	24.63	4.189	(5,356)	1.033	.398
	Northeast	88	24.98	4.386			
	Pacific	27	25.37	3.499			
	South	66	25.30	4.361			
	Southwest	11	27.09	3.448			
	West	17	24.18	3.167			
Financial	Midwest	127	19.06	5.887	(5,303)	.334	.892
	Northeast	81	18.16	6.611			
	Pacific	20	18.95	7.458			
	South	59	19.22	6.883			
	Southwest	8	20.38	6.989			
	West	14	18.57	8.777			

Table 26

T-test Result Comparing Saudi Students with F1-Visa and Other Visa Type on all Persistence

Variables

Variables	F1-Visa			Other- Visa			t-value	P-value
	N	M	SD	N	M	SD		
Personal	414	21.76	3.686	32	22.34	3.781	.342	.73
Psychological	419	17.47	3.500	32	17.09	2.955	-.210	.83
Engagement	410	19.53	3.897	33	20.39	4.100	-1.278	.20
University	375	25.69	5.308	30	26.60	5.475	-.996	.32
Faculty	363	24.86	4.126	31	25.61	4.271	1.830	.07
Financial	305	18.86	6.443	32	18.50	7.501	.703	.48

Table 27

T-test Result Comparing Saudi Students with Family Member that had the Experience Studying

Abroad or Not on All Persistence Variables

Variables	With family member studied abroad			First member of the family studying abroad			t-value	p-value
	N	M	SD	N	M	SD		
Personal	224	22.01	3.552	221	21.59	3.833	1.201	.23
Psychological	223	17.36	3.493	228	17.50	3.438	-.446	.65
Engagement	217	19.71	4.030	226	19.49	3.808	.599	.55
University	199	25.94	5.558	207	25.59	5.086	.663	.51
Faculty	192	25.09	4.099	202	24.78	4.186	.733	.46
Financial	167	18.40	6.514	170	19.24	6.556	-1.180	.24

Table 28

T-test Result Comparing Saudi Students Working Part-Time or Not on All Persistence Variables

Variables	Working part-time			Not working			t-value	p-value
	N	M	SD	N	M	SD		
Personal	45	23.07	3.306	401	21.66	3.710	2.440	.015*
Psychological	43	16.95	3.922	409	17.49	3.410	-.965	.33
Engagement	44	20.52	4.613	400	19.50	3.819	1.650	.10
University	40	28.30	4.735	366	25.49	5.312	3.210	.001*
Faculty	39	26.00	4.371	356	24.81	4.100	1.707	.11
Financial	29	18.48	7.735	308	18.86	6.429	-.294	.77

Note. * $p < .05$.

Table 29

T-test Result Comparing Working Hours on All Persistence Variables

Variables	Working 1-10 hours			Working 11-20 hours			t-value	p-value
	N	M	SD	N	M	SD		
Personal	16	22.00	5.151	25	23.80	1.384	-1.666	.006*
Psychological	16	17.38	3.775	24	16.33	3.985	.827	.618
Engagement	17	20.35	5.037	23	20.35	4.396	.003	.322
University	15	28.20	5.858	22	28.14	4.063	.039	.119
Faculty	15	25.53	5.111	21	26.24	4.036	-.462	.169
Financial	12	18.42	8.028	16	17.81	7.423	.206	.820

Note. *p<.05.

Conclusion

This chapter presented the procedure of data collection, data analysis, and research findings. The survey that was used to collect the data included close-ended questions and open-ended questions. The data were analyzed using SPSS for the quantitative data and coding for qualitative data. It was found that personal factors were most predictive in individual student persistence. Other important findings include demographic differences in gender, major, academic level, scholarship status, marital status, number of children, age, working part-time and working hours (see Table 30). In the next chapter, the discussion of the findings will provide the implications and the recommendations of future researches. Table 30 provides a synthesis of all results in this section.

Table 30

Summary of Results

Vectors	Groups	Statistically Significant Findings by Groups	Other Important Results
Personal	Academic level	Saudi graduate students were more likely to have personal factors that make them integrate well in their programs, more so than 2-years degree students and undergraduate students.	Personal variables have the most significant influence/ predictive power of all other variables on student propensity to persist.
	Working part-time	Saudi students who are working part-time have personal factors that make them integrate well in their programs, more so than not working students.	
	Working hours	Saudi students who working 11-20 hours have personal factors that make them integrate well in their programs, more so than students who were working 1-10 hours.	
Psychological			Has lowest mean comparing with other factors.
Engagement	Gender	Saudi male students can engage more than Saudi female students.	Open-end question: children, husband, home make no time for female Saudi students to engage
	Marital status	Single Saudi students can engage more than married students.	Open-end question: Family responsibility, children's needs make no time.

Table 30 (continued)

Vectors	Groups	Statistically Significant Findings by Groups	Other Important Results
University	Working part-time	Saudi students who are working part-time were more satisfied about university support than not working students	Has highest mean comparing with other factors.
Faculty	Age	Saudi students (36 years or more) were more satisfied about faculty support than (21-30) years old students.	
	Number of children	Saudi students with more than 3 kids were more satisfied about faculty support than students with no kids.	Open-end question: they mentioned that faculty understand their situation and try to help them
	Academic level	Saudi graduate students were more satisfied about faculty support than undergraduate.	
	Major	Business & Engineering Saudi students were less satisfied about faculty support than other majors.	
Financial	Scholarship status	Saudi universities & governments employees were more satisfied about financial support than self-sponsored students.	In open-end question: Self- sponsored students have a lot of financial difficulty

CHAPTER V: DISCUSSION

In this chapter, the researcher will provide a discussion of major findings, practical implications, limitations, as well as recommendations for future studies. In the first part of this section, the researcher will discuss the major findings by research questions and hypotheses. In the second part, the researcher will present the impact of research findings. Finally, the last part will discuss the limitations of the research and future recommendations.

Discussion of Research Findings

The purpose of this study was to examine the social and academic factors that affect the persistence propensity of Saudi students. The researcher used Tinto's Student Departure Model to measure factors that influence student persistence propensity. The research questions in this study were:

1. What is the nature of academic and social integration of Saudi students in the United States?
2. To what extent do academic and social integration factors explain persistence propensity among Saudi students in the United States?
3. Are there statistically significant differences in the academic and social integration of Saudi students in the U.S. based on student background (gender, age, marital status, number of children, and income); student academic status (scholarship status, academic level, major, region, type of visa, and first generation in the scholarship program); and institutional factors (working on campus, and hours of working)?

The factors measured in this study were personal, psychological, engagement, university services, faculty interaction, and financial support.

When examining the academic and social integration of Saudi students in the United States, overall university services received the highest rating compared to other factors. This means that compared to other factors, students perceived university services as the most supportive factor in their academic and social integration. This finding is congruent with the results of the open-ended questions, with most students participating in the study articulating appreciation for services provided by the university. Students saw services in the university such as the library, writing center, help center, transportation, and recreation center as helpful in their efforts to integrate well both academically and socially. This result is also consistent with previous studies, which have indicated that university services and resources help international students in their persistence and have a positive effect on their academic and social integration (Aldossari, 2016; Alsaahfi & Shin, 2017; AlMarshedi, 2011; Titlola, 2015). The favorable view of U.S. university services can be explained by the differences in student's experiences in U.S. university services versus Saudi university services. For example, in Saudi Arabia, universities have limited book options in libraries, there are no writing, tutoring, career or recreation centers, and there is little to no transportation to get to and from campus.

Following university services, Saudi students' positive interactions with faculty greatly contributed to the academic and social integration of students. Many Saudi students in this study indicated that faculty members were helpful and very understanding of the unique challenges faced by international students. Results regarding faculty interaction are also supported by previous studies such as Al-Shehry (1989), McKean (2016), Alhajjuj (2016), and Aldossari (2016), which indicated that positive interactions with faculty enhanced international students' retention in U.S. universities and played an important role in their acculturation process.

The personal factor is the third factor contributing to the academic and social integration and is the factor most predictive of student's persistence propensity. Most students in this study showed strong personality traits that helped them to achieve their goals. They reported in the open-ended questions that they have high ambition, self-confidence, motivation, skills, and knowledge that makes them able to overcome all obstacles. These factors along with the desire to obtain a prestigious degree that will help them land a good job also keeps them resilient. Furthermore, results on personal factors indicate that family can have a positive or a negative impact on student's integration. The support that Saudi students received from their families, such as emotional support and financial support, had a positive impact on their integrations. However, for Saudi students with children, the time spent tending to their families' needs negatively impacted their academic experiences. These findings support previous studies, which have indicated that self-motivation, self-pride, personal goals, ambition, self-efficacy, future visions, GPA and academic integration, help from friends, and support from family who are with them and back home are factors that lead to the persistence of Saudi students (Aldossari, 2016; Alhajjaj, 2016; Kwai, 2010; Maniseishvilli, 2012; McGovern, 2015; Titlola, 2015). Finally, some Saudi students indicated that they faced some difficulties that prevented them from successfully integrating such as limited English proficiency and writing skills. Many students indicated not feeling prepared in English before arriving to the United States. This finding is also supported by many studies that have found lack of English proficiency along with poor writing and conversational communication skills as some of the most challenging aspects for international students (Almarshedi, 2011; Al-Nusair, 2000; Alsaifi & Shin, 2017; Al-Shehry, 1989; Ellis, Sawyer, Gill, Medlin, & Wilson, 2015; Lin & Yi, 2007; McKean, 2016; Mustafa, 1985; Song-Turner, 2008; Titlola, 2015). On the other hand, English proficiency is not a

significant challenge that could prevent Saudi students to persist because they know how to cope with this challenge, as indicated by Aldossari (2016).

Results of the engagement factor indicated that most Saudi students participated continuously on and off campus. Students stated that they believe engaging in activities can help improve their academic performance, language, and relationships with their peers. Some Saudi students admitted to limiting their social interactions to only their Saudi peers because that helped them to eliminate the feeling of loneliness. Others, mostly Saudi female students and those with children, stated they did not have time to participate in any activities while few others indicated that their lack of communication skills and language proficiency prevented them from participating in activities.

Participants were divided regarding financial and psychological factors. Saudi students who participated in this study had varying degrees of financial difficulties. While some students reported no financial difficulties, students with children stated that they are faced with the high cost of daycare and other child-related expenses. Results indicate that it is even more challenging if students have more than one child or are living in a comparatively more expensive state. Aldossari (2016) found similar findings, with his research indicating that married Saudi students were affected more by financial issues compared to single Saudi students. In contrast to the finding of the current study, Aldossari found that financial issues had less of an impact on Saudi students' retention. The difference in results between his study and the current study can be explained by differences in sample size and demographic factors. In his study, he sampled 45 students, and of them, 16 earned more than \$8,000/month (Aldossari, 2016). In comparison, the current study sampled over 700 participants from various demographic backgrounds which helped capture variance. In the current study, only six participants had a stipend higher than

\$6,000/month and only 33% indicated having an additional income. While, overall, many students indicated that their monthly stipend was not enough for their needs, especially for purchasing study materials, books, and unexpected circumstances, self-sponsored students faced more financial challenges. The challenges faced by self-sponsored Saudi students are tuition, insurance, and living expenses. This was an important population to have in the current study, given that no previous studies have focused on or included self-sponsored Saudi students in their sample.

Regarding psychological factors, many Saudi students mentioned varying difficulties that make them worry and anxious all the time. Much of their anxiety was related to academic performance such as GPA, grades, course requirements, getting admitted to graduate school, IELTS, TOFEL, and GRE scores. These anxieties are typical of college students, domestically as well as internationally (Chapell, Banding, Silverstein, Takahashi, Newman, Gubi, & McCann, 2005). Students who were parents expressed anxiety about their children such as worries regarding the quality of daycare available to them. Again, these types of concerns are typical regardless of national origin. However, Saudi students also worried about their family in Saudi Arabia or in the United States, with some students mentioning that they have lost some family members during their study. Thus, not being around family during this time was particularly hard. Additionally, students conveyed a lot of challenges related to adjusting to a new culture. Some Saudi students do not feel like they fit into American society and continue to experience culture shock because they see a lot of differences between their cultural norms and the American cultural norms that they didn't know existed. Others have encountered discrimination and have not felt welcomed, thus furthering their feelings of loneliness and homesickness. The findings regarding the effect of psychological factors are consistent with the literature. Previous

studies have also found that some Saudi students had anxiety regarding their grades and being admitted to academic programs, experienced discrimination, received very little social support, and are challenged with understanding a new culture and its social norms (Al-Nusair, 2000; Al-Shery, 1989; Hanassab, 2006; Lee & Rice, 2007; Mackean, 2016; McGovern, 2015).

Moreover, some Saudi students indicated U.S. immigration and SACM policies were challenges. For example, some students indicated difficulties getting their visa renewed while others expressed angst over visa and travel concerns. This finding aligns with contemporary literature indicating that limitations of SACM support and American immigration regulations as well as academic honesty standards as roadblocks for international students that can prevent them from completing their studies (Alhajjuj, 2016; Fass-Holmes, 2016).

RQ2: To what extent do academic and social integration factors explain persistence propensity among Saudi students in the United States?

The linear regression yielded significance, indicating that personal, psychological, engagement, university, faculty, and financial factors were able to predict more than 50% of the variance in the persistence propensity of Saudi students in U.S. institutions. Results were largely driven by personal factors which included high GPA, English proficiency, ambition, strong desire, future job, self-confidence, and self-efficacy. Thus, it seems to be the case that to improve persistence, retention, and graduation rates, U.S. institutions and SACM should help bolster personal factors by providing international students with resources to help them improve and be more confident with the English language and other personal skills such as time management and multicultural competency. These recommendations are explored further below.

RQ3: Are there statistically significant differences in the academic and social integration of Saudi students in the U.S. based on student background (gender, age, marital status, number of

children, and income), student academic status (scholarship status, academic level, major, region, type of visa, and first generation in the scholarship program), and institutional factors (working on campus, and hours of working)?

H_0 RQ3: There was no statistically significant difference in the academic or social integration of Saudi students by student background, academic status, or institutional factors. However, the results of independent *t*-test indicated that male Saudi students participated in on- and off-campus activities more than female students. As such, the global null hypothesis with respect to gender is rejected. This result is partially consistent with findings by Alhajjaj (2016) who indicated that Saudi female doctoral students with children were limited to social activities that could help them to cope with all challenges that they have in the United States. Also, results confirm Alhazmi and Nyland's (2013) findings that Saudi and Emirati female students interact less than male students. This result reflects the cultural background of the environment in which Saudi women originate. Students are coming from a country in which institutions are separated by gender and transitioning to co-ed institutions, which Saudi women are particularly less familiar with. In addition, female Saudi students with families are culturally bound to fulfill duties at home as wife and mother in addition to their academic workload. As institutions seek to better integrate women, they should do so around women's roles as wives and mothers. This can be done by having family-friendly campus event, so that women can have the opportunity to partake in social events along with their family.

Furthermore, results of the one-way ANOVA indicated that Saudi students 36 years old or older were more likely to interact well with faculty members compared to Saudi students between the ages of 21-35. Thus, the null hypothesis was rejected. This result is logical because of the greater age convergence between these students and faculty members. In addition, the

educational level of older students tends to be higher. Most of the students in this group are graduate students and would thereby have smaller class sizes and greater opportunities for direct interaction with faculty. The scholarship rules indicate that undergraduate students should not be more than 22 years old, the master's degree student should not be more than 27 years old, and doctoral students should not be more than 30 years old when they apply to the program (Ministry of Education, 2018). Thus overall, Saudi students tend to be older than traditionally aged students in the United States.

Independent *t*-test analysis confirmed that Saudi single students were more likely to engage on and off campus more than married students. Yet, married students were able to interact more with faculty members. As such, there is a statistically significant difference in the engagement factors and faculty interaction of Saudi students by marital status. Thus, the null hypothesis in these cases is rejected.

The result of single Saudi students and their ability to participate in different activities more than married students is aligned with the open-ended question's responses in this study. Married students indicated that they did not have enough time to participate in other activities outside of the classroom because of their family's needs. This result is partially consistent with Mustafa's findings (1985), which indicated that married students need more time to finish their programs than their American peers. Also, as Alhajj (2016) illustrated that adequate time for degree completion is a concern for Saudi female doctoral students with children because they have competing responsibilities that decrease their ability to participate in any other activities. With that said, married Saudi students interacted better with faculty members compared to single Saudi students. This may be in part a function of age, academic level, and role congruence. Open-ended question's responses confirmed that married students were satisfied with what

faculty members did to support their needs. Most of them indicated that faculty members understand their situation and help them a lot. Additionally, this result partially matched Alhajjuj's (2016) findings that Saudi female students with children received a lot of support from faculty members.

With respect to the number of children, the results of the one-way ANOVA showed that Saudi students with more than three children are more likely to receive help and support from the faculty members. So, the null hypothesis was rejected. There is a statistically significant difference in faculty interaction based the number of children. This result matches other results in this study, particularly, that married Saudi students are more likely to interact with faculty members. This may also be a function of age and academic level which are also positively associated with positive faculty interactions. These results confirm that of Alhajjuj (2016) who found that Saudi female doctoral students with children received a lot of support from their faculty and classmates.

Regarding finances, which include a monthly stipend and other non-scholarship-based income, there were no statistically significant differences in student academic and social integration. As such, the null hypothesis with respect to income is not rejected. However, there was a statistically significant difference in the academic and social integration of Saudi students by scholarship status. Results of the one-way ANOVA showed statistical significant between Saudi students who are university or government employees with their peers who are self-sponsored Saudi students. As such, the null hypothesis with respect to scholarship status is rejected. Self-sponsored Saudi students encountered more financial difficulties compared to university and government employee Saudi students. This result reflects the fact that universities and government employees' Saudi students earn more than other groups because they receive the

same monthly stipend as other scholarship students, as well as about 50% from their salary in Saudi Arabia (Ministry of Education, 2018). On the other hand, self-sponsored Saudi students do not have any income from the United States or Saudi Arabia, and most of them depend on family contributions.

There is a statistically significant difference in the personal and faculty factors of Saudi students by academic level. The results of the one-way ANOVA showed statistically significant differences in Saudi students' integration between graduate and undergraduate students. As such, the null hypothesis is not rejected. Saudi graduate students had the highest mean in the personal factors compared to Saudi undergraduate and associates degree students. Most participants were graduate students ($N=336$), which presented 44.3% of the study sample, and they had a more positive response on the personal factors than undergraduates. Also, Saudi graduate students were more likely to interact well with faculty members compared to undergraduate students. This result is consistent with another result of this study related to age. Saudi students who are 36 years of age or older interacted well with faculty members because most students in that age are graduate students. Additionally, the way the faculty members interact with graduate students and other students differs due to the nature of graduate level studies, which requires students and faculty to work together as teams or as colleagues. Most Saudi graduate students are also university employees at universities in Saudi Arabia, thus making their interaction with American faculty members easier as compared to their peers. In general, being a graduate student means that you have overcome a lot of challenges and have met requirements such as TOFEL, IELTS, GRE, and obtained a high GPA before you got admitted into your current academic program, thus you have already built the personal characteristics such as self-confidence,

motivation, English proficiency, and other characteristics that would allow you to continue to persevere.

There is a statistically significant difference in the personal and university factors of Saudi students by working part-time. Results of an independent *t*-test indicated a statistically significant difference in personal factors and university services between students that did and did not work part-time. In addition, in terms of the number of hours worked, there is a statistically significant difference in the personal factors of Saudi students by working hours. Results of an independent *t*-test indicated a statistically significant difference in personal factors and university services by working hours. As such, the null hypotheses for both working part-time and working hours were rejected. Saudi students who were working part-time reported the highest mean in the personal factors and universities services compared to non-working Saudi students. Saudi students who worked more hours also had the highest mean. These results can be explained by the fact that working on campus help students to integrate with others and improve their academic progress and social life (Kwai, 2010). Working students are more likely to know about university services and use them to progress academically. Furthermore, working more hours may enhance knowledge about campus services and encourage the appreciation of campus offerings. In addition, being more integrated with the campus can promote confidence in one's ability to complete the program. Working on campus could be a function of graduate student status and greater interaction with faculty; however, no statistically significant differences here were found. Also, working part-time can help students to decrease their financial difficulties, which could affect them psychologically. This result is confirmed by Kwai's (2010), in which he found that on-campus jobs positively impacted international students' persistence. As such, it

may be incumbent for U.S. universities and SACM to help Saudi students obtain on-campus employment to encourage their persistence.

There is a statistically significant difference in faculty interaction by students' major. Results of the one-way ANOVA showed statically significant differences in faculty interactions between business and engineering students compared to other groups. So, the null hypothesis is rejected. Saudi students in business and engineering majors reported the lowest mean in faculty interaction compared with language & communication, education and social studies, health, and law majors. This result implicates a need for further investigation into the cultures and signature pedagogies of these majors and why students in these majors regard faculty support less favorably.

No statistically significant difference in the academic or social integration of Saudi students by region, visa type, or generation status in the scholarship program were found. Results of one-way ANOVA indicated no statistically significant differences in scales by region. In addition, results of independent samples *t*-test indicated no statistically significant differences in all scales by visa type. As such the null hypotheses regarding the region, visa type, and generation status in the scholarship program are not rejected. This means that students' experiences of social and academic integration are similar across U.S. regions, by visa type, and whether they had another family member who previously studied abroad.

Implications of Research Findings

The Saudi Arabia Cultural Mission (SACM) is a unique resource established by the Ministry of Education in Saudi Arabia, which provides a substantial amount of support to Saudi students during their international studies; no other country provides such type of in-country support to its students studying abroad. Upon arriving to their country of study abroad, Saudi

students are connected to advisors that support them in various capacities, based on their individual needs. For example, they provide information about on-campus resources to help students that may be struggling academically, they provide assistance to students facing any difficulties around social integration, they help students integrate to their new environment through training, workshops, symposiums and conferences, and even hold career fairs to help students obtain full-time positions post-graduation. While SACM provides many resources to Saudi students to help them in their academic and social integration, there are still areas in need of improvement in order for Saudi students to integrate more successfully. The practical implications of the findings of this research are twofold. The first implication of the findings is the need for improvements in the preparation stage of Saudi Arabia prior to going abroad for their higher education studies. The second is the need for improvements at U.S. institutions to better integrate Saudi students academically and socially.

Regarding the first implication, when Saudi students decide to study abroad, s/he only attends an orientation organized by the Ministry of Education in Saudi Arabia. It is there that they learn about past Saudi students' experiences studying abroad, and then they themselves decide which country or which program they are interested in applying for. Based on the results of this study and others, it is apparent that the Ministry of Education should improve their strategy for preparing students to study abroad in foreign countries. This may include providing summer trips or online cultural classes to help interested students understand the academic and social life of their country of interest prior to deciding. Students should then take an online class the first semester at the university that s/he is attending to get the feel of the academic requirements before going to the school in-person. This would help students make more sound decisions regarding their ability to meet the requirements of a foreign education system.

Cultural classes would especially be relevant for female students planning to study abroad given the cultural/social norms around gender that exist in Saudi Arabia that differs in other countries. It would be helpful for female students to understand what to expect and to be given tips on how to handle challenges they may encounter. For example, they should be provided with tips on how to interact with male faculty or male peers. In addition, it may be helpful for Saudi students to understand other norms that are acceptable in other countries even though they are not common in their country. For example, students studying at universities in Saudi Arabia are not allowed to work during their studies. However, in the United States there are no rules against working while completing one's study. For some international students, knowing this information could address financial difficulties—they should be informed that it is acceptable to have a part-time job at a U.S. universities/college and that working part-time would not necessarily affect their studies. In addition, the Ministry of Education in Saudi Arabia should increase the financial allocations for children; the current allocation is about \$2,000 for students studying abroad with children.

Second, there is an opportunity to address the challenges of academic and social life in U.S. institutions for international students generally, and especially Saudi students. Based on the research findings, I propose several recommendations as to how U.S. institutions can better assist international students. First, U.S. institutions can assist in connecting new international students with current international students from the same country if possible, to serve as peer mentors. They can provide them with unique information that may not be covered during orientation that will help them adopt more effectively to their new environment. Also, institutions can also provide more help to identify employment opportunities for international students based on their skills and abilities. For example, students can tutor students in Arabic or other languages. This

will help address some international student's financial difficulties as well as better connect students to the campus and build personal capacity to persist.

Moreover, institutions can involve international students in the planning process of events and be actively reach out to students to participate. For example, ask students about the best time that they can participate in activities and enhance participation via social media platforms such as Twitter, Facebook, Instagram, and the like. In addition, international offices can encourage international students to join student organizations to foster relationships with peers that share their similar interests. Participation in student organizations can also enhance student abilities to make decisions regarding the type and timing of events. Furthermore, given that many students are in the United States with their spouse and children, activities should be designed to encourage family attendance. Furthermore, they can consider having female-specific events to help female students interact with other American females given the Saudi cultural norm that regulates the interaction of females and males. All of this will not only help students get more engaged but can also help students feel more welcomed and their unique needs met.

It is also important to have events that can foster intercultural understandings through dialogue and discussion between international students and faculty members. This can help address and mend some cultural gaps and misunderstandings which if not address, often leads to isolation and feelings of discrimination.

On the academic side, it is important to investigate the cultures of academic departments that are less than welcoming to international students, especially to Saudi students. Business and engineering were majors that stood out in this research, in particular; however, professional development around intercultural competence for both faculty and staff in all academic departments would be prudent.

Finally, concerns regarding student navigation of U.S. immigration laws, changes with respect to immigration policies as well as navigation of SACM policies should be addressed. Transparency and stability are key to helping students persist.

Limitations of the Research

The researcher used an online survey, which prevented face-to-face interaction and limited the in-depth details the researcher could obtain regarding Saudi students' social and academic integration. Furthermore, there are concerns regarding the generalizability of findings due to a small sample size; while 944 participated, 759 completed the demographic and only about 400 participants completed the survey to its entirety. Furthermore, this was a cross-sectional study design rather than a longitudinal study design, thus the researcher could not measure the students' persistence over time.

Recommendations of Future Research

The purpose of this study was to examine the social and academic integration of Saudi students who are studying in the U.S. institutions. While the research findings provided an understanding of the integration and persistence of Saudi students in America, there is a need for more studies.

First, to further understand of Saudi student's persistence in the U.S. institutions, the researcher recommends conducting studies to further examine differences among Saudi student's persistence based on demographic information such as gender and financial support status. Given the differences in cultural and social norms regarding gender in the United States versus Saudi Arabia and the impact that can have on engagement at university/college, interactions with peers and faculty and just adjusting to the changes in general, it is imperative for future studies to focus on the differences in experience based on gender, specifically focusing on female Saudi students.

A study using qualitative interviews would be best suited to truly capture the experiences of female Saudi students and consequently be able to provide recommendations for helping them integrate into their new environment while still holding to their beliefs.

The study was limited such that many participants received financial support via scholarship or other support. There were very few students that self-sponsored their education; thus, it may be beneficial to further examine that population, especially regarding the financial factors. This is an important factor to examine, given that regardless of international background, financial circumstances can affect a student's ability to attend or continue to attend a university/college, and being an international student may further add to the financial challenges.

Second, future studies should add comparison groups to truly identify factors that are unique challenges for international students compared to their peers. For example, do non-international students with families also experience difficulties with engagement on campus or in general, do the various factors also have an impact on non-international students such as interactions with peers, faculty, support from the university, etc. This information can better tailor resources for international students to meet their unique needs but can also help identify the needs of other groups of students. Future studies should also look at how factors may affect international students differently based on the country they are coming from. Again, this will help provide more tailored support to a different population of students based on their unique challenges versus just having a general support that may not actually address the needs of these groups and consequently lead to low retention rate among these groups.

There is also a need for more studies related to international persistence in general and among Saudi students, in a form of qualitative research studies and a case studies about the social and academic factors that affect Saudi students' persistence in the U.S. universities from

SACM academic advisors point of view. In addition, since this research showed the importance of working part-time for Saudi students' integration, the effect of working part-time in international students social and academic integrations, could be a research topic that helps international students in their persistence. Finally, the effect of changes in visa and immigration regulations to international students' persistence, is another topic that needs to be studied further.

In terms of diversity and multiculturalism, there is a need for studies that examine the impact of enhancing diversity and internationalism. The intercultural competence of faculty members and other employees in the U.S. universities is one of the most important topics that would impact understanding of the awareness, the knowledge, and the skills that faculty members have and how could they work and deal in the multicultural environment.

Conclusion

From this study factors found in Tinto's student departure model can explain and predict students' persistence propensity through their academic and social integration. The most impactful factors were personal, university services, and faculty interaction. That these factors were most significant signify the harmony among students, faculty, and university supports in order to support students to degree. There were variations in findings by student demographics. Specifically, personal factors were more likely to predict the persistence of graduate students and students working part-time; male and single students were more likely to engage in on-campus and off-campus activities; and graduate students, 36 years old or older, and those with more than three children were more satisfied with faculty support. The results of this research provide important practical and theoretical implications for preparing and supporting Saudi Arabian students as well as international students prior to and during their study abroad experiences.

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APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building · Mail Stop 682
600 Moyer Boulevard · Greenville, NC 27834
Office 252-744-2914 · Fax 252-744-2284
www.ecu.edu/ORIC/irb

Notification of Exempt Certification

From: Social/Behavioral IRB
To: [Nurah Al-Dayel](#)
CC: [Crystal Chambers](#)
Date: 6/1/2018
Re: [UMCIRB 18-000537](#)
THE ACADEMIC AND SOCIAL INTEGRATION OF SAUDI INTERNATIONAL STUDENTS IN THE U.S.

I am pleased to inform you that your research submission has been certified as exempt on 5/30/2018. This study is eligible for Exempt Certification under category #2.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

APPENDIX B: LETTER OF PERMISSION

بسم الله الرحمن الرحيم

Royal Embassy of Saudi Arabia
Cultural Mission To The U.S.A.



سفارة المملكة العربية السعودية
الملتقى الثقافية بالولايات المتحدة الأمريكية

المرفقات:

التاريخ:

الرقم:

August 10, 2018

Dear Ms. Nurah Al-Dayel,

This letter is to inform you that we have received and reviewed your dissertation survey.

On behalf of the Saudi Arabian Cultural Mission to the USA, we are happy to inform you that your request has been approved and the Saudi Arabian Cultural Mission to the U.S. is willing to assist you in distributing your survey among the targeted audience.

Please coordinate with myself at wjabr@sacm.org and Mrs. Nehal Elrefia at nelrefia@sacm.org if you have any question regarding your survey.

Thank you and we wish you continued success on your future accomplishments.

Sincerely,

Walid Aljabr

Director of Cultural & Social Affairs

Cultural Mission of the Royal Embassy of Saudi Arabia

8500 Hilltop Road

Fairfax, VA 22031

Phone: 571-422-4786

Fax: 571-327-2761

APPENDIX C: SURVEY INSTRUMENT

Dear Participant,

You are being invited to participate in a **research** study titled “The Academic and Social Integration of Saudi International Students in The U.S. Higher Education Institutions” being conducted by Nurah Al-Dayel a doctoral student at East Carolina University in the Educational Leadership department. The goal is to survey about 50 individuals in The U.S. higher education institutions. The survey will take approximately 10 minutes to complete.

It is hoped that this information will assist us to explore Saudi student’s persistence at U.S. higher education institutions using Tinto’s theory of student departure. The study focuses on the extent to which various factors assist Saudi students with the completion of their academic programs factors which impede their graduation from American universities.

Your responses will be kept confidential and no data will be released or used with your identification attached. Your participation in the research is **voluntary**. You may choose not to answer any or all questions, and you may stop at any time. There is **no penalty for not taking part** in this research study.

Please contact Nurah Al-Dayel at Aldayeln13@students.ecu.edu for any research related questions or the Office of Research Integrity & Compliance (ORIC) at 252-744-2914 for questions about your rights as a research participant.

Demographic Questions

- 1- Gender: () Male () Female
- 2- Marital status () Single () Married () Divorced () Widowed
- 3- How many children do you have?
- 4- Your age is between: () 18-20 () 21-25 () 26-30 () 31-35 () more than 36.
- 5- Which state do you live in?
- 6- What is the monthly stipend that you receive in the U.S. from SACM?
() \$1500-\$2000
() \$2000- \$4000
() \$4000- \$6000
() more than \$6000
- 7- Do you have another income resource, neither in U.S., nor in Saudi Arabia?
() Yes
() No
- 8- How are you funding your education? (check all that apply)
() Students under King Abdullah Scholarship program.
() Saudi universities and government employees’ students.
() Privet sector employees’ students
() Other SACM program
() Medical and health science students.
() Self-sponsored students.
() Diplomat spouses.

9-What kind of Visa do you hold?

- F1
- F2
- Other

10-What is your level in the university?

- English Language program.
- 1- year certificate program
- 2- year college degree (associates)
- undergraduate
- graduate
- Other

11- What is your major?.....

12- Did any of your family members (parents, siblings, spouse) have the experience of studying abroad? Yes No

If Yes or No, please explain how could that affect your own experience of studying abroad?

13- Do you work as a part time student in the campus? Yes No

If yes, how many hours?

Directions for the Next Section

Below are some factors that could have a positive effect on the retention of Saudi students in the U.S. higher education institutions. On a scale of 1 to 5, with 1 being strongly disagree and 5 being strongly agree, please indicate your level of agreement with each of the following statements regarding the reason(s) for completing your degree at the college you are attending. You may check (X) in the scale of your choice.

Rating Scale

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree
6. No Response

- *To what degree do you agree that these factors affect the completion of your study?*

Personal Variables

Factors	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	No response
I have a strong desire to achieve my goal and graduate from my program.						
I would like to improve my skills and knowledge						
I have a high GPA						
I have an ambition to get a better job.						
I have a high level of English to complete my study work.						

- In your opinion, what are the most personal Factors that help or prevent you from completing your study in the U.S universities? explain why.....

Psychological Variables

Factors	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	No response
Since I came to the U.S., I feel homesick.						
Some time I feel lonely and not welcome in inside or outside the classroom.						

I am worry about my safety.						
I Do not have difficulty making friends with Americans inside or outside the university.						
I have a high level of self-efficacy and self-esteem.						
I prefer to be supported by Saudi friends						

- From your experience, what are the psychological factors that affect you the most and explain how they influence your academic life?.....

Engagement Variables

Factors	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	No response
I love to participate in different activities on-camp.						
I have good communication skills that help me communicate well with my classmates.						
I have good relationships with my classmates outside the campus.						
My classmates help me with any difficulties in class work.						

I prefer to spend my time with American friends.						
I prefer to spend my time with Saudi friends						

- How do you engage on-campus academically? and how do you engage on and off-campus socially? Does your academic and/ or social engagement affect your academic progress? How? What could help you to improve your engagement academically? Socially?.....

University Variables

Factors	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	No response
I am satisfied with the services provided by the university.						
When I need help, I know where to go.						
When I ask for help I receive it on time.						
I like campus community						
I like the university cultural activities.						
I like the university athletic activities.						
I like university recreation activities like billiards, table tennis, etc.						

- In your opinion, what is the most thing the university does that helps or prevents you from adjusting? How does it affect you?

Faculty Variables

Factors	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	No response
I have good communication with faculty.						
I like knowledge provided by the professors.						
I interact with the professor in the class.						
I am satisfied with the advisor flexibility.						
My advisor considers my absence from classes.						
My professor requires too many assignments.						
My professor understands my needs and my situation as an international student.						

- From your experience, how do faculty members in your college/ universities help or hinder you in achieving your academic goals ?.....

Financial Variables

Factors	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	No response

My scholarship covers all my tuition expenses.						
My scholarship covers all my book and class materials.						
My scholarship covers all my rent.						
My scholarship covers all my food expenses.						
My scholarship covers all my transportation.						
My scholarship covers all my child care expenses.						

- Do you have any financial difficulty during your study? Can you explain?.....

