

CHINESE INTERNATIONAL UNDERGRADUATE STUDENTS AT A
U.S. UNIVERSITY: A MIXED METHODS STUDY OF FIRST-YEAR
ACADEMIC EXPERIENCES AND ACHIEVEMENT

by

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ABSTRACT

The purpose of this study was to explore the first-year academic experiences and achievement of Chinese international undergraduate students in American higher education. To do so, I tracked a cohort of Chinese international undergraduates through their first-year at a public research university in the United States. Both qualitative and quantitative data were collected through surveys, interviews, and an existing database to gain a better understanding of students' background characteristics, study abroad decision-making processes, application to U.S. universities, and first-year academic experiences including challenges and coping strategies. I also examined students' academic achievement in relation to that of comparison groups and identified the factors that affect their academic achievement.

Many students in the study were not adequately prepared to face the rigor of college in the U.S. and encountered significant challenges in navigating their first-year academic experiences, including engaging in active and collaborative learning, interacting with American faculty and peers, and maintaining academic integrity. They faced particular challenges coping with the dramatic increase in personal freedom and taking ownership of their own learning. However, despite these challenges, Chinese international undergraduates in the study made gains in academic achievement on par with their American counterparts. Additionally, this study found that gender, high

school class rank, English language proficiency, the initiation of the idea to study abroad, and absence from class were significantly associated with participants' cumulative first-year GPA, while high school class rank and absence from class were significantly correlated with their first- to second-year persistence.

As one of the first studies to empirically examine the academic experiences and achievement of Chinese international undergraduates on American campuses, this study extends the literature in meaningful ways to provide valuable insights for policymakers, administrators, faculty, and staff who are involved with this population. The findings of this study also help Chinese international undergraduates address cross-cultural learning barriers and facilitate their efforts to become successful cross-cultural learners.

This dissertation is dedicated to my wife, Li, and our two children, Catherine and Andrew; to my father, Zengkun Ma; and to the memory of my mother, Xianrong Zheng.

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CHAPTER 1

INTRODUCTION

Chinese international undergraduate students have become an increasingly significant presence on American campuses. According to the latest *Open Doors* report from the Institute of International Education (IIE), in the 2012-13 academic year, there were 93,789 Chinese international undergraduates studying in American institutions of higher education (IIE, 2013). Not only do these students contribute to the American economy through spending on tuition, fees, and living expenses (Bartlett & Fischer, 2011; McMurtrie, 2012), but they also help increase racial and cultural diversity at American colleges and universities (Lee & Rice, 2007; Zhao, Kuh, & Carini, 2005). Therefore, it is important for American higher education researchers and practitioners to develop a full understanding of Chinese international undergraduates to better serve their needs, facilitate their learning, and help them build skills to successfully adapt to the academic and social environments of American campus life. Toward that end, this study focuses on Chinese international undergraduate students' academic experiences in their first year of college, and investigates their academic achievement at a public research university in the United States. This chapter is organized in the following sections: (1) background of the study; (2) statement of the problem; (3) purpose of the study; (4)

research questions; (5) significance of the study; (6) definition of key terms; and (7) organization of the dissertation.

Background of the Study

Worldwide, higher education has become increasingly international as evidenced by the rapid rise in the number of students enrolled abroad for postsecondary education over the past three decades (Altbach & Knight, 2007; Bodycott, 2009; Knight, 2006; Li & Bray, 2007). According to the Organisation for Economic Co-operation and Development (OECD) (2013), the number of international students has grown significantly from 0.8 million in 1975 to 4.3 million in 2011, a more than five-fold increase. Although many factors contributed to this growth, researchers pointed out that international education experienced a major shift from international aid to international trade (He & Banham, 2011; Li & Bray, 2007). Lee and Rice (2007) described that during much of the 20th century, the primary aim of international education was to promote state development, diplomacy, cultural exchange, and political ties between countries. However, over the recent decades, international education has gradually developed “a new market perspective of students as a revenue source” (Lee & Rice, 2007, pp. 383-384). As a result, international education in many developed countries has become “a means of earning export revenues” (He & Banham, 2011, p. 19) and “a global industry” (Mazzarol & Soutar, 2002, p. 82). For example, in 2010-11 education services contributed approximately \$16.3 billion to the Australian economy and were ranked as Australia’s third largest single export earner (Australian Education International, 2012). Similarly, according to the U.S. Department of Commerce, international students

contributed more than \$20 billion to the U.S. economy in the 2010-11 academic year, making education the fifth largest U.S. service export (American International Education Foundation, 2013).

Historically a magnet for international students (Koch & Green, 2009), the United States continues to attract the largest number of postsecondary students enrolled outside their country of citizenship. In the 2012-13 academic year, the number of international students studying at American colleges and universities amounted to 819,644 (IIE, 2013), a 31-fold increase from 26,433 in the 1949-50 academic year and an approximately 50% increase from 547,867 in the 2000-01 academic year (IIE, 2001). International students in the 2012-13 academic year accounted for 3.9% of the total enrollment in U.S. higher education (IIE, 2013). Additionally, according to the OECD statistics (2013), in 2011, the U.S. share of the international student market was 17%, approximately 4% higher than that of the United Kingdom, the world's second leading higher education destination. However, over the period between 2000 to 2011, the share of international students who chose the U.S. as their study destination dropped by 6% (OECD, 2013), primarily because countries such as the U.K. and Australia intensified their recruitment efforts (Koch & Green, 2009) and the U.S. tightened its visa restrictions after September 11, 2001 (Koch & Green, 2009; Lee & Rice, 2007).

Meanwhile, China has become the world's largest source for international students. In 2010, approximately 16% of global internationally mobile students were from China (United Nations Educational, Scientific and Cultural Organization, 2013). Not surprisingly, Chinese students are the largest single group of international students in American institutions of higher education. In the 2012-13 academic year, the number of

Chinese international students in the U.S. climbed to 235,597, accounting for 29% of the international student population at American colleges and universities (IIE, 2013). During the period between 2000-01 and 2012-13, Chinese international students in America increased by approximately 400% (IIE, 2013). Additionally, one notable trend over the past several years has been the dramatic increase in the number of Chinese international students coming to the United States for undergraduate education. In 2006-07, there were only 9,988 Chinese international undergraduates in the U.S (IIE, 2007). By 2012-13, the figure jumped to 93,789 (IIE, 2013), an astonishing 939% increase within only 6 academic years. At the University of Iowa, Chinese students made up more than 70% of international undergraduates in 2011 (Choudaha & Kono, 2012).

Without question, Chinese international students provide many benefits for the United States. First, Chinese international students and their dependents contribute to the American economy through spending on tuition, fees, and living expenses. According to the U.S. Department of Commerce, international students and their families contributed \$24.7 billion to the U.S. economy in the 2012-13 academic year (IIE, 2013). Considering that Chinese international students comprised 28.7% of the international student population (IIE, 2013), it is reasonable to estimate that Chinese students and their dependents contributed roughly \$7.1 billion to the American economy. For American colleges and universities that have faced shrinking endowments and decreases in state funding, Chinese students seem to be “a godsend” (Bartlett & Fischer, 2011, para. 4). Furthermore, many Chinese students choose to work and live in the U.S. after graduation, thus continuing to contribute to the American economy.

Second, American-educated Chinese students play an important role in supporting the interests of the United States. In a 1906 memorandum to President Theodore Roosevelt, Edmund J. James, president of the University of Illinois, wrote:

China is upon the verge of a revolution...Every great nation in the world will inevitably be drawn into more or less intimate relations with this gigantic development...The United States ought not to hesitate...The nation which succeeds in educating the young Chinese of the present generation will be the nation which for a given expenditure of effort will reap the largest possible returns in moral, intellectual, and commercial influence. (as cited in Yi, 2000, p. 205)

This rationale was echoed by Hu Shih (also known as Hu Shi), who was the American-educated Chinese Ambassador to the U.S. between 1938 and 1942. In 1945, Hu noted that “(T)he thousands of Chinese students educated in American schools and trained in American industries constitute the best salesmen of American products, material, intellectual, and spiritual” (as cited in Yi, 2000, p. 207).

Third, Chinese international students enrich academic life in the United States (Lampton, Madancy, & Williams, 1986). According to a study by the National Science Foundation (Johnson, 2001), Chinese students earned 7.5% of all science and engineering doctorates in U.S. universities between 1988 and 1996, including 13% of physical science and 15% of mathematics doctorates awarded over the period. Many Chinese students, especially those majoring in science, technology, engineering, and mathematics, are not only involved in conducting research in U.S. universities, but also help teach undergraduate students. In addition, a large number of postdoctoral scholars at U.S. universities and research organizations are from China, and they contribute significantly to scientific research in the U.S.

Finally, Chinese international students help increase racial and cultural diversity on American campuses. Zhao, Kuh, and Carini (2005) noted that “an important goal of

higher education is to prepare culturally competent individuals with the ability to work effectively with people from different backgrounds” (p. 209). As the number of Chinese international students on American campuses continues to grow, they help provide opportunities and a context for interracial and intercultural interactions to occur. These interactions certainly benefit American students in the marketplace by increasing their awareness and appreciation for other countries and cultures. In a global economy that is increasingly dominated by the U.S. and China, the cross-cultural interactions between American and Chinese students are more important than ever before.

Statement of the Problem

Despite the significant presence of Chinese international students in American higher education and their importance to the United States, there is very limited literature on the experiences of this growing student population (Counsell, 2011; Zhang, 2005). Little research has particularly focused on Chinese international undergraduate students in the U.S. (Shu, 2008), let alone their academic experiences and achievement. As problematic as it may sound, this lack of interest is not surprising because international students “have always remained one of the most quiet, invisible, underserved groups on the American campus” (Mori, 2000, p. 143). Pelletier (2003) also pointed out that “the education of international students has never been more than a marginal interest to most academics” (p. 2). Furthermore, the influx of Chinese international undergraduate students at American colleges and universities is a relatively new phenomenon (IIE, 2013). It may simply take time for American higher education researchers and scholars to digest the information and produce valuable research related to this phenomenon.

In one of the very few studies that have emerged on Chinese international undergraduates in the U.S., Zhang and Hagedorn (2011) investigated why Chinese students chose to use or not to use third-party education agents during their application process. Both quantitative and qualitative data were collected from two groups of students: prospective study abroad students in China and Chinese international undergraduate students in the U.S. Zhang and Hagedorn (2011) found that a lack of knowledge about the American education system and unfamiliarity with American university and visa application processes were the main reasons for the widespread use of third-party agents among Chinese applicants. While acknowledging the existence of unethical practices among agents, Zhang and Hagedorn (2011) concluded that agents' professional services played an important role in helping Chinese students overcome their application barriers.

In another study, Shu (2008) employed a phenomenological interviewing research method to examine the experiences of 6 Chinese international female undergraduates at the University of Arkansas. The study found that while the participants viewed their overall study abroad experience as "meaningful and worthwhile" (p. 76), they encountered many academic challenges, including language barriers, unfamiliarity with the American higher education system and classroom norms, and lack of certain learning skills. The participants also reported experiencing several psychological stressors, including homesickness, friendlessness, and lack of sense of belonging.

Compared with the paucity of scholarly literature, great interest in Chinese international undergraduates in the U.S. is documented in non-peer reviewed articles, conference panel discussions, and internet posts (Bartlett & Fischer, 2011; Harris, 2012;

Stevens, 2012), with a large proportion, if not the majority, suggesting that Chinese international undergraduate students face serious problems in American higher education. On November 3, 2011, *The Chronicle of Higher Education* and *The New York Times* published a collaborative article entitled “The China Conundrum.” While acknowledging the financial contribution of Chinese undergraduates to American colleges and universities, the article claimed that “what seems at first glance a boon for colleges and students alike is, on closer inspection, a tricky fit for both” (Bartlett & Fischer, 2011, para. 4). Among the many problems raised in the article, perhaps the most serious ones are the fraudulent application practices and unethical academic behaviors engaged in by Chinese undergraduates during the application process and in American classrooms. According to the article, “90 percent of Chinese applicants submit false recommendations, 70 percent have other people write their personal essays, 50 percent have forged high school transcripts and 10 percent list academic awards and other achievements they did not receive” (Bartlett & Fischer, 2011, para. 16). In addition, the article indicated that plagiarism is a challenge faced by many Chinese undergraduates on American campuses.

Similarly, an online post entitled “Chinese students in America. It’s bad out there” cited many complaints about Chinese undergraduates, including “They are killing class discussion,” “You never see any of them at any school function,” “They never make any effort to talk with anyone other than those who are also from China,” and “They cheat all the time” (Harris, 2012). The titles of some other news articles and online posts include “Fake it till they make it: Chinese agencies manufacture phony applications to US colleges” (Wozniak, 2012), “Chinese students, too qualified to be true” (Schmitz, 2011),

and “Opening the door to American universities with lies” (Hathaway, 2011). These reports and discussions painted a dark picture of Chinese international undergraduates on American campuses. In the midst of this uproar, few authors reluctantly admitted that while certain American colleges and universities treat Chinese undergraduates as “cash cows” (Bartlett & Fischer, 2011; Stevens, 2012), many others open their doors for Chinese undergraduates without first putting necessary infrastructure in place (Stevens, 2012).

Overall, there is a scarcity of research literature on Chinese international undergraduate students in American higher education. While this is understandable because of a general lack of interest in international students (Andrade, 2005; Mori, 2000) and the recent influx of Chinese undergraduates on American campuses, it has nevertheless yielded an unbalanced view expressed anecdotally about Chinese international undergraduate students’ cross-cultural learning experiences (Bartlett & Fischer, 2011; Stevens, 2012), which deprives us of the opportunity to learn how these students deal with challenges in a completely new environment and what progress they make over the course of their academic careers. Furthermore, this anecdotal evidence encourages a view of Chinese international undergraduate students as a burden to host institutions. Therefore, there is a great need for more scholarly research related to Chinese international undergraduate students’ learning experiences and academic achievement at American colleges and universities.

Purpose of the Study

In light of the problems Chinese international undergraduates face on American campuses and the need for more research on this student population, the purpose of this study is to explore the first-year academic experiences and achievement of Chinese international undergraduate students in American higher education. To do so, I tracked a cohort of Chinese international undergraduates enrolled at the University of Utah (the U) through their first year of college. Both quantitative and qualitative data were collected to gain a better understanding of students' background characteristics, study abroad decision-making processes, application to U.S. universities, and first-year academic experiences including challenges and coping strategies. I also examined students' academic achievement in relation to that of comparison groups and identified the factors that affect their academic achievement in the U.S.

Research Questions

Four sets of research questions guide this study.

1. What are the background characteristics of Chinese international undergraduate students at the U? Why and how do they choose to pursue undergraduate education at the U?
2. What are Chinese international undergraduate students' first-year academic experiences at the U? What challenges do they face? What are their coping strategies?
3. How do Chinese international undergraduate students perform academically during their first year of college at the U? Are they significantly different from

their American counterparts and other international undergraduate students in terms of attempted credit hours, earned credit hours, cumulative grade point average (GPA), and first- to second-year persistence rates?

4. What factors predict Chinese international undergraduate students' cumulative first-year college GPA and first- to second-year persistence at the U?

Significance of the Study

The significance of this study is three-fold. First, it contributes to the very limited literature on Chinese international undergraduate students in American higher education. This study also represents the first effort to empirically investigate the factors that affect Chinese international undergraduate students' academic achievement on American campuses. In doing so, this study can draw more attention from higher education researchers and scholars, raise their research interest in Chinese international undergraduates, and hopefully yield a more balanced view of this growing student population on American campuses.

Second, this study provides a better understanding of Chinese international undergraduate students at the U and helps the university improve its services for this growing student population. Andrade (2006) noted that American institutions of higher education must “consider the educational and cultural experiences” (p. 133) of their international students. Peterson, Briggs, Dreasher, Horner, and Nelson (1999) warned that “Higher education institutions that take international students for granted, as ‘cash cows,’ do so at their peril” (p. 69). The findings of this study are of particular interest to the Global Pathways Program at the U and the U’s English as Second Language (ESL)

program, Office of International Admissions, International Center, Student Success and Empowerment Initiative, and other programs and services. The findings of this study can also facilitate cross-campus collaboration among university administrators, faculty, and student affairs professionals to help fulfill the university's commitment to the success of Chinese international undergraduates.

Third, this study facilitates Chinese international undergraduate students' efforts to become successful cross-cultural learners. While the cross-cultural journey for international students is exciting, many Chinese international undergraduates may not realize that being a cross-cultural learner "is not easy" and "requires courage, determination and persistence" (Wan, 2001, p. 43). By informing them of the dimensions of difficulties many Chinese undergraduates encounter and the factors that affect their academic achievement, this study can help Chinese international undergraduate students become more aware of their adjustment problems and the solutions available to them.

Definition of Key Terms

The following definitions are provided to ensure uniformity and understanding of these terms throughout the study. The researcher developed all definitions not accompanied by a citation.

Academic achievement is defined as academic performance and college persistence. In this study, academic performance is measured by cumulative first-year college GPA, first-year credit hours attempted, and first-year credit hours earned; college persistence is measured by first- to second-year persistence rates.

Academic experiences are broadly defined as the aspects of college student experiences that are directly related to students' learning. These aspects include course-taking patterns, class attendance and participation, the amount of homework, the experience of taking exams, student-faculty interactions, peer interactions, and balancing multiple life priorities. Academic experiences and nonacademic/social experiences comprise college student experiences.

Chinese American students are defined as students who were born and grew up in America, but claim to be of Chinese origin.

Chinese international students are defined as students who are from the People's Republic of China, on F-1 nonimmigrant visa status, and pursuing either undergraduate or graduate studies in American institutions of higher education. In this study, the term is used interchangeably with "Chinese students."

Chinese international undergraduate students are defined as students who are from the People's Republic of China, on F-1 nonimmigrant visa status, and pursuing undergraduate education at American colleges and universities. In this study, the term is used interchangeably with "Chinese undergraduate students" or "Chinese undergraduates."

College student success is defined as "academic achievement; engagement in educationally purposeful activities; satisfaction; acquisition of desired knowledge, skills, and competencies; persistence; and attainment of educational objectives" (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007, p. 10).

First- to second-year persistence rate measures the percentage of first-time students who return to the institution to continue their studies the following fall.

Global Pathways Program at the University of Utah is a collaboration between the U and Kaplan Global Solutions, a division of Kaplan, Inc. The undergraduate Global Pathways program offers international students the opportunity to pursue bachelor's degrees in a variety of fields and majors at the U. International students meeting entry requirements are admitted into the three-semester long Pathways program for a 12-month period at the U. The curriculum is a combination of college-level English preparation with university academic courses. Upon successful completion of the program, students transfer into a bachelor's degree program at the U as sophomore students.

Gaokao (National University Entrance Examination) is “China’s grueling, ultra-competitive university entrance exam. Somewhat similar to the American SAT, except that it lasts more than twice as long, the nine-hour test is offered just once a year and is the sole determinant for admission to virtually all Chinese colleges and universities” (Hays, 2013).

Persistence refers to the continuance of a student’s college enrollment. “Persistence” and “retention” are two closely related terms in that institutions retain students and students persist.

US-Sino Pathway Program (USPP) at the University of Utah is a collaboration between the U and Kaplan China, which provides a pathway for Chinese students who want to pursue undergraduate studies in the U.S. The three-semester long program begins in mainland China, where students complete general education coursework. After that, students complete advanced coursework in the U.S. at a Summer Bridge program. Upon successful completion of the program, students gain guaranteed admission to the U, a

year of course credits toward a bachelor's degree, and comprehensive English language preparation.

Organization of the Dissertation

Chapter 1 has presented background of the study, statement of the problem, purpose of the study, research questions, significance of the study, and definitions of key terms. Chapter 2 contains the review of research related to the history of Chinese students in the United States. Profiles of the current wave of Chinese undergraduates studying abroad are also presented. Additionally, the chapter reviews literature related to college student success and international student success. The methodology and procedures for gathering and analyzing the study data are presented in Chapter 3. Chapter 4 provides the results of data analyses and findings of the study. Chapter 5 discusses the key findings and contributions of this study and presents limitations, implications, and conclusion.

CHAPTER 2

REVIEW OF THE LITERATURE

The history of Chinese students in the U.S. can be traced back to 1822, when five Chinese boys attended the Foreign Mission School in Cornwall, Connecticut (Rhoads, 2011). Since then, one generation of Chinese students after another has come to the U.S. to study. This chapter provides an extensive review of the literature and research related to Chinese students in the U.S. and the factors that affect their academic achievement. The chapter is divided into the following sections: (1) Chinese students in the United States; (2) profiles of the current wave of Chinese international undergraduates; (3) factors influencing college student success; (4) factors influencing international student success; (5) a preliminary model for predicting Chinese undergraduate success in the U.S.; and (6) summary. Given the paucity of literature available on Chinese undergraduates in the U.S., this review also draws from studies of Chinese American students, Chinese graduate students in the U.S., and Chinese international students in other countries such as the U.K., Australia, and New Zealand. In addition, it is important to note that for historical reasons, Chinese students studying in the U.S. might not always be F1 student visa holders.

Chinese Students in the United States

As Wilbur (1965) observed, “One of the most striking phenomenon in the recent history of China is the large number of Chinese youth who went abroad to study” (p. v). Over the past 200 years, thousands of Chinese students left home to study in almost every major country in the world, including the United States. In fact, more Chinese students graduated from American colleges and universities than from higher education institutions in any other foreign country (Lampton et al., 1986; Li, 2008; Yi, 2000). In this section, the research related to the history of Chinese students in America is first reviewed, followed by the literature related to their academic achievement. The section ends with a review of studies related to the difficulties Chinese students encounter during their cross-cultural journey.

A Historical Overview

The history of Chinese students in the United States can be divided into three periods on the basis of the rise and/or fall of three regimes in China—the Qing Dynasty, the Republic of China, and the People’s Republic of China (PRC).

The late Qing Dynasty period (1822-1912). In 1872, the Qing government sent 30 Chinese students—the first dispatch of 120 Chinese Educational Mission (CEM) students—to study in the New England region of the United States, the first group of government-sponsored students ever sent to the U.S. The CEM was an initiative launched by Chinese progressive leaders in response to the Taiping Rebellion (1851-1864) and China’s defeat in the First Opium War (1839-1842) and the Second Opium War (1856-1860). The goal of the CEM was for students “to learn about the sciences related to army,

navy, mathematics, engineering, etc., for ten-odd years, so that after they have completed their study and returned to China all the technological specialties of the West may be adopted in China, and the nation may begin to grow strong by its own efforts” (as cited in Wang, 1966, p. 74).

Prior to the CEM, at least more than a dozen Chinese students had attended schools or colleges in the United States (Rhoads, 2011). Among them, five Chinese boys attended the Foreign Mission School in Cornwall, Connecticut in 1822, the earliest record of Chinese students studying in America (Rhoads, 2011). In 1846, a Chinese student named Zeng Laishun entered Hamilton College in Clinton, New York, and became the first Chinese student to attend an American college (Rhoads, 2011). However, the honor of being the first Chinese student to graduate from an American college went to another student, Yung Wing (also known as Rong Hong), who graduated from Yale with a B.A. degree in 1854 (Rhoads, 2011; Ye, 2001; Yi, 2000). According to Yung’s biography, his education in America enlarged his “mental and moral horizon” and revealed to him “responsibilities which the sealed eye of ignorance can never see” (Yung, 1909, p. 40). While studying at Yale, Yung was “determined that the rising generation of China should enjoy the same educational advantages that [he] had enjoyed; that through western education China might be regenerated, become enlightened and powerful” (Yung, 1909, p. 41). After graduation, Yung returned to China and was able to successfully lobby the Qing government to send 120 CEM students—30 students a year for 4 years between 1872 and 1875—to the United States to study Western science and engineering.

Based on Rhoads’ (2011) study, several striking characteristics of the CEM students can be identified. First, these boys were “extraordinarily young” (p. 17), ranging

from 9 to 23 with an average age of about 12 years old. Second, in terms of their geographical origins, 115 students were from the southeast coast provinces, the part of China with the longest and most direct exposure to the Western influence. More than two-thirds (83) of the CEM students were from one single province—Guangdong. Third, although the CEM students were required to have some prior education, few “were members of the scholar-official elite” (p. 30). In addition, these boys knew very little English prior to their departure. After arriving in the U.S., they were assigned to live with New England host families, where they were cared for and instructed before they could go through the different tiers of the American school system.

Although the original plan was for the CEM students to study in the U.S. for about 15 years (Rhoads, 2011; Wang, 1966), the CEM was terminated abruptly in 1881 due to rising costs, the anti-Chinese movement, CEM students unable to enter American military institutions, and particularly the growing concerns among conservative Chinese officials that the CEM students were becoming too Americanized (Rhoads, 2011; Ye, 2001). Upon returning to China, the CEM students were treated harshly, and most of them were forced to start their career from the very bottom of the Chinese bureaucracy (He, 1991). However, many CEM students eventually rose to prominence, including one student who capped off his career as the first Prime Minister of the Republic of China in 1912.

During the last decade of the 19th century, the Qing government was reluctant to send students abroad. As a result, “a change in the nature of Chinese education abroad” (Litten, 2009, p. 30) was witnessed. Instead of relying on government sponsorship, many individuals went to America as self-supporting students, primarily through the

sponsorship of American missionaries, the scholarships offered by some American colleges and universities, or their own wealthy families (Litten, 2009; Wang, 1966). Among these individuals, four Chinese female students received medical degrees in the U.S. between 1881 and 1892, becoming “not only the first women to study abroad but also the initial women doctors in China” (Wang, 1966, p. 49). By 1906, approximately 300 Chinese students were studying in the U.S. (Ye, 2001). As for the composition of Chinese students in the U.S., roughly 40% were self-supported in 1905; by 1910, the percentage of self-supporting students jumped to approximately 70% (Wang, 1966).

The period around the turn of the 20th century was crucial to the Qing Dynasty, which switched to survival mode after its defeat by Japan in the First Sino-Japanese War (1894-1895) and the disastrous Boxer Rebellion in 1900. As a result, sending students to study abroad was once again viewed as a means to maintain the regime’s independence and to accelerate the nation’s modernization, and therefore regained popularity. In 1901, a number of Chinese postgraduate students from Beiyang School were sent to the U.S. Between 1903 and 1906, several dozens of students were sent to study in the U.S. by some Chinese local governments (He, 1991). In 1908, the United States decided to return the surplus Boxer Indemnity funds to China, and the Qing government agreed to use the money for study abroad purposes, thus paving the way for another wave of Chinese students to study in the U.S. In 1909, the first group of the Boxer Indemnity Scholarship students arrived in America. In the same year, a preparatory school (later known as Tsinghua College or Qinghua College) was established in China to better prepare Chinese students for entering American colleges. As an aside, Yung Wing died on May 29, 1912, 3 months after the Qing Dynasty officially came to an end.

The Republic of China period (1911-1949). The three decades between 1911 and 1949 were a turbulent time in Chinese history, characterized by warlordism, outside invasion, and civil war. Against this backdrop, a steady flow of Chinese students—both government-sponsored and self-supporting—traveled to America to study.

Originally created in the late Qing Dynasty, the Boxer Indemnity Scholarship Program attained prominent status in the early years of the Republic period, and was hailed as “the most important scheme for educating Chinese students in America and arguably the most consequential and successful in the entire foreign-study movement of twentieth-century China” (Ye, 2001, p. 10). Related to that, Tsinghua College, a preparatory school established using the Boxer Indemnity funds, quickly became “the new center for educational exchanges between the United States and China” (Li, 2008, p. 66). In an effort to make the educational experiences for its students as much like those in the U.S. as possible, Tsinghua “hired more American teachers, adopted an American-style curriculum, used American textbooks, applied American teaching methods, and introduced American extracurricular activities” (Li, 2008, p. 68). Shortly after its establishment, Tsinghua College began to send all of its graduates to American colleges and universities for further studies, a practice that was upheld until 1929 when the college was reorganized as a university. By then, more than 1,200 Tsinghua graduates had been sent to the U.S. with support from the Boxer Indemnity scholarship (Li, 2008; Wang, 1966).

On paper, as many as 80% of Tsinghua graduates were required to study “technical subjects—agriculture, engineering, commerce, and mining—and 20 percent, law, finance, and education” (Wang, 1966, p. 111) in the U.S. However, in reality, these

requirements were loosely enforced, and students had the freedom to choose their field of study. In addition, originally, there were no requirements specifying the number of years that Tsinghua graduates were allowed to study abroad, with the expectation that they would complete their study within 7 years. Later, the length of stay in the U.S. was shortened to 6 years and then 5 years before it finally ended up at 4 years. On the one hand, these requirements were implemented to prevent students from “loafing” abroad for too long (Wang, 1966, p. 112). On the other hand, these requirements reflected that Tsinghua graduates were more academically prepared for studying at American colleges and universities than were other Chinese students in the U.S. As an example, the first three groups of Boxer Indemnity Scholarship students were comprised of non-Tsinghua graduates. Many of them were very young and had to first attend American high schools. By contrast, the Tsinghua graduates of later years were able to enroll at American colleges as freshmen, sophomores, or juniors.

In addition to preparing its own graduates for studying in the U.S., Tsinghua College also took on several other roles. First, it was responsible for selecting women students from other schools through competitive examinations, offering them scholarships, and sending them to study in the U.S. This practice represented a desire among Chinese intellectuals “to promote equality between men and women” (Wang, 1966, p. 113). Second, Tsinghua College was responsible for selecting male university graduates for postgraduate study in America. Competitive examinations were regularly held for these scholarships. Between 1916 and 1929, more than 60 students were awarded the scholarship and were expected to earn advanced degrees in the fields of sciences and engineering within 3 years. Third, Tsinghua College was responsible for providing need-

based financial aid to certain Chinese undergraduates already at American colleges. Between 1914 and 1929, approximately 500 students were awarded this aid, which was usually in the amount of \$480 a year with 3 years as the maximum award period (Wang, 1966).

In 1929, Tsinghua College officially ended its mission as a preparatory school and the practice of sending all of its graduates to the U.S. In the same year, the Chinese government issued regulations requiring that all future self-supporting students must be at least senior middle-school graduates or middle-school graduates with 2 years' experience in the educational field. In 1933, the government set forth a new regulation, further requiring that all government-sponsored students must be college graduates with 2 years' experience in their fields. The regulation also specified that government-sponsored students must be selected through competitive examinations and encouraged to major in fields such as agriculture, engineering, science, and medicine rather than the liberal arts. Additionally, the regulation required that self-supporting students must be college graduates or graduates from technical schools with 2 years' experience in a technical field. After 1938, the government further required that only postgraduate students be allowed to study abroad. As a result, during the 1940s, Chinese graduate students outnumbered undergraduate students in America at a more than two-to-one ratio. In addition, between 1929 and 1935, more than 80% of Chinese students studying in the U.S. were self-supported; by 1942, the percentage of self-supporting students rose to approximately 97% (Wang, 1966).

After the Second Sino-Japanese War (1937-1945) broke out in 1937, the Chinese government took action to restrict study abroad activities. As a result, only a small

number of Chinese students came to the U.S. between 1937 and 1941. However, the government began to loosen the restriction after 1942. The end of World War II particularly witnessed a new wave of Chinese students studying in the U.S. Between 1945 and 1949, a record number of more than 5,000 Chinese students arrived in America (Wang, 1966). However, with the communist victory and the founding of the People's Republic of China in October 1949, the U.S.-China educational exchange suddenly came to a complete stop.

Overall, during this period, several common characteristics of Chinese students studying in America can be identified (Wang, 1966). First, because the cost of studying in the U.S. was relatively high and the number of scholarships offered by government was relatively low, studying in the U.S. gradually became a luxury only enjoyed by the wealthy in China. Second, in terms of geographical origin, China's southeast coast continued to lead the other areas in sending students to study in America. Between 1909 and 1945, the number of students from Guangdong, Jiangsu, and Zhejiang accounted for 57-82% of the total number of Chinese students studying in America. Third, engineering and natural sciences became the leading fields for Chinese students in the U.S. Between 1905 and 1954, the field of engineering consistently attracted more than 20% of the Chinese students studying in America, and the field of natural sciences increasingly gained in popularity among Chinese students. Together, the fields of engineering and natural sciences accounted for more than one-third of Chinese students in 1931-1932 and more than half of them in 1945.

The People's Republic of China period (1949-present). During the 30 years between 1949 and 1978, no Chinese students were sent to the U.S to study. However, the

U.S. and Chinese governments began to loosen the restrictions on educational exchanges after Nixon visited China in 1972. In October 1978, the two governments signed the *Understanding on Educational Exchanges*, an agreement that provided for the exchange of undergraduate students, graduate students, and visiting scholars to undertake research and study in each country. Just several days before the establishment of diplomatic relations between the two countries on January 1, 1979, the first group of 50 government-sponsored students arrived in America, thus ushering in a new period of Chinese students attending U.S. higher education institutions.

Among the various reasons for resumption of the educational exchange between the two countries was China's decision to abandon the extreme policies of the Cultural Revolution (1966-1976) and to implement the policy of reform and opening up to the world. In seeking to modernize the economy and society, Chinese leaders soon realized that they had to close the gap in science and technology between China and Western countries, and that "access to U.S. educational institutions was an ideal shortcut to the acquisition of world-level scientific and technical knowledge" (Orleans, 1988, p. 23). In June 1978, Deng Xiaoping, the undisputed leader of China, called for sending more students to study abroad. He emphasized that "students should be sent abroad not in dozens, but in thousands and tens of thousands" (as cited in Li, 2008, p. 202).

However, considerable difficulty was experienced in selecting the first group of PRC students to study in the U.S. Because virtually all Chinese colleges and universities were closed during the Cultural Revolution period, the government faced a unique problem: there were simply no qualified college students to choose from. As a result, the initial 50 students were either faculty members or researchers chosen from the Chinese

Academy of Sciences or from universities under the Ministry of Education. They ranged from 32 to 49 years old with an average age of 41, received their academic training at least 10 years prior, and were recognized for achievement in their fields. According to Orleans (1998), the main goal for these students was “to catch up with advances that had taken place in their disciplines” (p. 24).

These student profiles also fit other government-sponsored students sent to the U.S. in the late 1970s and the early 1980s, who constituted the majority of study abroad students at the time. According to the U.S. Department of State, between 1979 and 1987, approximately 56,000 visas were issued to Chinese students and scholars. Among them, about 60% were issued to government-sponsored students and scholars, and about 40% were issued to self-supporting students (Orleans, 1988). In addition, of the 28,000 Chinese students and scholars in America in January 1988, approximately 21,000 were government-sponsored students and scholars and the remaining 7,000 were self-supporting students (Orleans, 1998). Additionally, among government-sponsored students and scholars, approximately two-thirds studied engineering, physical sciences, computer science, health sciences, life sciences, and mathematics, and about one half of them studied the physical and life sciences alone (Lampton et al., 1986). In contrast, only a small proportion of government-sponsored students and scholars studied management, agriculture, social sciences, and humanities (Lampton et al., 1986). These choices “reflect the Chinese government’s emphasis on science and technology as key to modernization” (Lampton et al., 1986, p. 2).

Since the early 1980s, China has experienced dramatic social, economic, and political changes, which have impacted the Chinese government’s study abroad policies

and Chinese students' study abroad practices. First, Chinese colleges and universities began to graduate more students who "represent the cream of Chinese higher education after the Culture revolution" (Yan & Berliner, 2011). While these graduates have dramatically increased the size of the study abroad student pool, their academic quality and dedication to sciences have made them the safe bid for American colleges and universities (Lampton et al., 1986). Second, the Chinese government continued to loosen its study abroad policies. In 1985, it published a set of regulations specifying that any individuals who could secure financial support and the necessary enrollment documents were encouraged to pursue foreign education regardless of their age, previous academic experience, and employment status. These regulations intensified the "study-abroad fever" among the younger Chinese generation (Orleans, 1988, p. 28). Third, China's economic boom since the late 1970s has helped build a new and burgeoning middle class, which can now afford to send its students to study in the U.S.

As a result, the U.S. has seen an explosion in the number of Chinese students attending American colleges and universities. According to the IIE (2000-2012), there were 2,770 Chinese students studying in the U.S. in the 1980-81 academic year; the number jumped to 39,600 in 1990-91, soared to 59,939 in 2000-01, and reached 194,029 in 2011-12. In terms of their ranking among all international students in the U.S., in 1988-89, Chinese students for the first time became the largest group of international students and remained in that place for 6 years before being displaced by Japanese students. In 1998-99, Chinese students regained their position as the largest international student population and remained in that place until their position was displaced by Indian students in 2001-02. In 2009-10, Chinese students again returned to the top position as

the leading group of international students in the U.S., and they have since remained in that place.

Since the late 1970s, Chinese students in the U.S. have generally studied at the graduate level (Orleans, 1988; Yan & Berliner, 2011; Zhang, 2005). However, over the past several years, the large, rapid influx of Chinese undergraduate students has dramatically changed the composition of Chinese students on American campuses. In 2006-07, there were only 9,988 Chinese undergraduate students in the U.S. and they accounted for about 15% of Chinese students in American higher education (IIE, 2007). Since then, Chinese undergraduates in the U.S. have seen astonishing rates of increase: 65% in 2007-08, 60% in 2008-09, 52% in 2009-10, 43% in 2010-11, 31% in 2011-12, and 25.9% in 2012-13 (IIE, 2008-2013).

According to the latest report by IIE (2013), in the 2012-13 academic year, there were 235,597 Chinese students studying at American colleges and universities. Among them, 40% ($n = 93,789$) were enrolled as undergraduates, 44% ($n = 103,505$) were enrolled as graduate students, and the remaining 16% ($n = 38,303$) were nondegree-seeking students and others. As for their choice of majors, Chinese students were concentrated in Business/Management (29.0%), Engineering (19.2%), Math/Computer Science (11.2%), Physical/Life Sciences (8.8%), and Social Sciences (8.2%). In addition, their enrollment also covered Fine/Applied Arts (4.9%), Education (1.7%), Health Professions (1.3%), and Humanities (1.0%).

In short, over the past 200 years, the United States has been the leading destination for Chinese students pursuing overseas education. On the one hand, driven by the urge to maintain the nation's independence and to accelerate the country's

modernization and the desire for more personal freedom and a better life, the Chinese government and Chinese students have turned to the U.S. for scientific and technical knowledge. On the other hand, motivated by the rationale that assisting and educating Chinese students is in the interest of the United States, America has opened her arms to welcome Chinese students. As a result, more Chinese students have graduated from American colleges and universities than from higher education institutions in any other foreign country (Yi, 2000). Furthermore, these American-educated Chinese have played important roles in “the awakening society” (Orleans, 1988, p. 19), scientific and technical fields (Lampton et al., 1986), and U.S.-China relations (Litten, 2009).

This review of the history of Chinese students in the U.S. also reveals several trends. First, throughout the last two centuries, China has demonstrated a continuing interest in sending students to study in the U.S. According to Lampton et al. (1986), this interest “was always motivated by a belief that China needed Western science, technology, and learning in its national effort to remain independence, improve its economic welfare, and enhance its power in the world” (p. 17). Second, related to this enduring interest, the scale of Chinese students studying in the U.S. has expanded dramatically. Between 1860 and 1950, it was estimated that approximately 30,000 Chinese students studied in America (Lampton et al., 1986; Li, 2008). In contrast, in the academic year 2012-13, there were 235,597 Chinese students studying at American colleges and universities (IIE, 2013). Third, as far as geographical origins are concerned, the majority of Chinese students studying in the U.S. have come from the southeast coast provinces, which are the area with the longest and most direct exposure to Western influences. A single province—Guangdong—has consistently provided the largest

number of students studying in America (Lampton et al., 1986; Rhoads, 2011). Fourth, although the enrollment of Chinese students at American colleges and universities covers many different fields of study, engineering and sciences have remained the leading fields for Chinese students (IIE, 2012; Lampton et al., 1986; Wang, 1966). Recently, business management has gained in popularity among Chinese undergraduates.

Finally, despite the noble goals of study abroad set by the Chinese government, national interest always yields to personal interest (Orleans, 1988; Wang, 1966; Yan & Berliner, 2011). During each period, in the effort to maintain national survival and accelerate the country's modernization, the Chinese government initiated the study abroad movement by sending government-sponsored students to the U.S. However, in recognition of the remarkable contribution made by and the favorable treatment received by government-sponsored students (He, 1991), self-supporting students quickly joined the movement and gradually outnumbered government-sponsored students. In addition, lured by the desire for more personal freedom and a better life, Chinese students, particularly PRC students, are willing to stay in the U.S. rather than return to serve their own country after completing their studies abroad (He, 1991; Rhoads, 2011; Yan & Berliner, 2011). Yan and Berliner (2011) argued that compared with "the older generation in the late 19th and early 20th who were more inclined to return, the contemporary generation has less attachment to home" (p. 176). Further, Wang (1992) observed that "after a brief initial period of enthusiasm, coordination between the government and the students has disappeared and the government has lost control over a movement initially designed to foster economic growth and national restoration" (as cited in Yan & Berliner, 2011, p. 176).

Academic Achievement

Before they were sent to America between 1872 and 1875, the 120 CEM students had very limited previous education in China (Wang, 1966), and the majority of them did not know any English at all (Rhoads, 2011). They attended a preparatory school in Shanghai for a short period of time, where they learned English in addition to studying Chinese. However, their training was “diffuse and superficial” (Rhoads, 2011, p. 37). Once in America, they lived with local host families, who were instructed to prepare the boys for regular American schools as quickly as possible. However, Wang (1966) noted that “The comfort of their new environment probably facilitated their integration into local community life but did not necessarily promote high academic achievement” (p. 80). In fact, the majority of the CEM students progressed through the different tiers of the American school system slowly. By the time they were recalled in 1881, only two (Wang, 1966) or three (Rhoads, 2011) CEM students had graduated from college, about one half had entered or were about to enter college, and the remaining half were still in high school.

Similar to the experiences of CEM students, many Chinese students in the late Qing Dynasty period attended American high schools before entering colleges. According to a study of about 200 Chinese students in 1905, only 19 were enrolled as graduate students, 51 were enrolled as undergraduate students, and all the others were enrolled at preparatory schools (Wang, 1966). In addition, during this period, the Chinese study abroad movement began to experience some problems. As Wang (1966) noted, “In the midst of all the enthusiasm and fever, quantity was preferred to quality, and many of the students were improperly selected” (p. 83). There were reports that some government-

sponsored students had difficulties getting into American universities because of their poor English language proficiency and that some self-supporting students were just loafing around (Wang, 1966).

Many of these problems continued to exist during the early years of the Republic of China period, when most Chinese students in America were reported having “mediocre academic records” (Wang, 1966, p. 166). However, as the Chinese government exercised more control over study abroad activities, especially by raising the education credential of students who wanted to pursue overseas education, Chinese students in the U.S. began to enjoy higher academic achievement in the 1940s. Overall, Chinese students received 4,463 degrees and 9,334 degrees from American colleges and universities during the period between 1854 and 1929 and the period between 1930 and 1954, respectively (as cited in Wang, 1966). Of the total, about 34% were bachelor’s degrees, 53% were master’s degrees, and 13% were doctorates. In addition, during the period between 1854 and 1954, approximately 40% to 50% of Chinese students failed to graduate from American colleges and universities (Wang, 1966).

Students from People’s Republic of China (PRC)—particularly those in the field of natural sciences—achieved positive academic outcomes and had a good reputation in American institutions of higher education, at least prior to the mid-2000s. In a survey conducted by the Committee on Scholarly Communication with the People’s Republic of China (CSCPRC), 44% of the American college and university administrators who responded to the survey indicated that Chinese graduate students’ grades were better than the average for all graduate students, and 97% indicated that their grades were better than

or same as the average of all graduate students (as cited in Lampton et al., 1986). One science faculty member ranked PRC students at the top of his class, and noted:

It is because the quality of students that come is so high that enthusiasm continues. If the quality were poor, it wouldn't last. Basically, it's because these kids come with the sole purpose of study... They're here solely to study and learn. They do 100 percent—150 percent—of what they're asked to do. (as cited in Lampton et al., 1986, pp. 110-111)

Yan and Berliner (2011) compared PRC students with Chinese students studying in America in the pre-1949 era and argued that PRC students' academic quality was higher than that of their predecessors. According to these authors, PRC students typically graduated from Chinese colleges and universities before coming to the U.S. Therefore, they were more academically prepared for studying in the U.S than their predecessors, many of whom did not have a college degree prior to departure for the U.S. In addition, the screening process for PRC students was more competitive than the one used for the previous generations of Chinese students studying in America. Yan and Berliner (2011) pointed out that during the late Qing Dynasty period, many Chinese students came to the U.S. to study simply because their family could afford to send them. In contrast, PRC students must meet the admissions requirements set by U.S. colleges and universities.

Bai (2008) stated that since the late 1970s, there were three waves of study abroad movement among PRC students, which occurred in the 1980s, 1990s, and 2000s, respectively. While praising the academic quality of the first two waves of Chinese students, Bai (2008) suggested that the third wave of Chinese students—mainly students pursuing undergraduate education in Western countries—was less academically prepared for studying abroad.

Dimensions of Difficulties

Anecdotal evidence supports that the old generations of Chinese students faced difficulties while studying in the U.S. In his biography, Yung Wing wrote: “I squeezed through the second year in college with so low a mark that I was afraid to ask my division tutor...about it” (Yung, 1909, p. 38). Similarly, the CEM students were not prepared for their study in the U.S. For example, their English proficiency was so poor that some students had to spend more than 2 years learning English with host families before they could begin their formal education (Rhoads, 2011). In 1910, a petition filed to a Qing government official touring the U.S. revealed that many government-sponsored students had such serious English problems that they could not get into American colleges (Wang, 1966). However, due to the scarcity of literature on previous generations of Chinese students, the review in this subsection primarily focuses on recent literature on contemporary Chinese students studying in the U.S. This review found that the most common difficulties for Chinese students are associated with language barriers, cultural differences, academic adjustment, and social integration.

Language barriers. Chinese students were very concerned about their English proficiency (Sun & Chen, 1999; Wan, 2001, Yuan, 2011). Many students who arrived in the U.S. with high scores in standardized English tests (e.g., Test of English as a Foreign Language and Graduate Record Examination) quickly realized that the high scores they earned by no means guaranteed sufficient English competency to succeed at U.S. colleges and universities (Sun & Chen, 1999). Indeed, many Chinese students ranked language barriers as the most serious problem they faced in cross-cultural learning (Mori, 2000).

Wan (2001) suggested that Chinese students' language problems are associated with the differences between Chinese and English languages and the way English is taught in China. According to Wan (2001), English language belongs to an alphabetic system, while Chinese language belongs to an ideographic system. They are two extremes of a continuum. Wan (2001) also noted that in China, English language education emphasizes reading and writing, but ignores listening and speaking. As a result, many Chinese students entering American higher education may know English grammar and vocabulary well but have a difficult time with conversational English.

Lack of English proficiency had profound effects on the academic and social adjustment of Chinese students in the U.S. As one Chinese student noted, "You felt embarrassed if somebody asks you 'Pardon me?' 'Could you say it again?' After a couple of times, you would rather close your mouth" (Feng, 1991, p. 14). Another Chinese student felt he was totally lost, incompetent, and dysfunctional because he could not speak English well: "I could not communicate with people, and I could not even order my food at McDonald's. People saw me as different, somebody unable to do anything. I was depressed and isolated myself from the outside world. I was afraid to meet people" (Zou, 2000, pp. 191-192). Because of limited English proficiency, many Chinese students never achieved full participation in American classrooms and society (Sun & Chen, 1999).

Cultural differences. When Chinese students come to study in the U.S., they bring with them a culture that is very different from American culture. Wan (2001) explained that Chinese culture is deeply rooted in Confucianism, with values and morals that are very different from Western philosophy. Feng (1991) noted that American culture values individualism, competition, independence, and self-expression, while

Chinese culture values collectivism, cooperation, interdependence, and self-control. Being unfamiliar with American culture, many Chinese students expressed concerns about such components as competitiveness, individualism, and assertiveness (Yuan, 2011). Some students even felt that American culture is somewhat offensive (Heikinheimo & Shute, 1986; Yuan, 2011).

Sue and Kirk (1972) studied characteristics of Chinese-American students in academic abilities, vocational interests, and personality traits. They found that compared with other ethnic groups, Chinese-American students scored higher on quantitative and lower on verbal and combined sections of the ability test. They also found that Chinese-American students were more interested in physical sciences, applied technical fields, and business occupations and less interested in social sciences, aesthetic-cultural fields, and verbal-linguistic vocations. Moreover, Sue and Kirk (1972) reported that Chinese-American students were more conservative in their sense of obedience and conformance to authority, more inhibited and conventional, less socially extroverted, less likely to express their impulses, and less socially concerned with other people. These authors suggested that differential characteristics of Chinese-American students are correlated with their cultural backgrounds, traditions, and family influence.

Tweed and Lehman (2002) proposed a Confucian-Socratic framework to analyze culture's influence on academic learning. According to these authors, Confucian-oriented learning involves "effort-focused conceptions of learning, pragmatic orientations to learning, and acceptance of behavioral reform as an academic goal" (p. 93), while Socratic-oriented learning involves "overt and private questioning, expression of personal hypotheses, and a desire for self-directed tasks" (p. 73). Tweed and Lehman (2002)

articulated that both approaches have their advantages and disadvantages and advocated the development of a flexible approach to learning that combines the value of both the Confucian and Socratic orientations.

Academic adjustment. Many Chinese students had difficulties adjusting to instructional methods and performance expectations for students in American higher education. Yen (1987) noted that Chinese students are still trained in the Confucian tradition of teacher-centeredness. Wan (2001) pointed out that in China, teachers are regarded as respected authorities, and students are taught to be quiet listeners. According to Lee (2001), Chinese students are encouraged to follow and obey their teachers. As a result, they seldom ask questions in class and dare not challenge their teacher for the fear of embarrassment and making a negative impression.

Parker (1999) reported that many Chinese students feel uncomfortable asking questions even if they do not understand a concept or technique demonstrated by the faculty. Instead, they would rather ask their classmates or consult textbooks after class. According to Parker (1999), from the perspective of Chinese students, interrupting professors or being too active in group discussions are disrespectful behaviors. Therefore, Chinese students prefer to be good listeners rather than talkers. In addition, being unfamiliar with the American education system and requirements of U.S. universities created significant problems for Chinese students. For example, Sun and Chen (1999) reported that a Chinese student who had never heard the term “APA style” had to check its meaning and rules before she could work on a two-page paper.

Social integration. Chinese students had difficulties establishing friendships with American students and engaging in campus life and American society (Chang, 1973;

Huang, 1997; Sue & Kirk, 1972; Sue & Zane, 1985; Wan, 2001). Many Chinese students expressed concerns about lack of interactions with American students or described their relationships with Americans as superficial (Liu, 2009). Huang (1997) found that despite the fact that Chinese students are interested in learning about American culture and American people and that they enjoy visiting different places and seeing various aspects of American life, they primarily socialize with other Chinese students.

Chinese students attributed their social problems to their lack of English language competencies, cultural differences, lack of mutual understanding and common interests, a tight academic schedule, and the convenience of having many Chinese students around (Feng, 1991; Timm & Wang, 1995; Wan, 2001; Yuan 2011). For example, Huntley (1993) pointed out that “Chinese students tend to become embarrassed at their language problems and then retreat socially to the community in which they are most comfortable” (p. 10).

Because of lack of social integration, Chinese students found it difficult to fit into the campus environment and American society (Yuan, 2011). Moreover, separated from family and friends, depression and loneliness brought overwhelming negative impacts to Chinese students (Sun & Chen, 1997; Zimmermann, 1995). Ditommaso, Brannen, and Burgess (2005) found that Chinese students scored high in family and social loneliness but low in attachment security for both peer and romantic relationships.

In summary, Chinese students have studied in the U.S. for almost two centuries. However, despite their academic achievement, Chinese students encounter many difficulties in American higher education. The language barrier has been consistently ranked as the most serious problem, which has a profound, negative effect on Chinese

students' academic and social adjustments in the U.S. The huge distance between Chinese and American cultures seems an impassable chasm and further affects Chinese students' cross-cultural experiences. Although Chinese students perceive their experiences on American campuses as very rewarding, many of them have never achieved full participation in American classrooms and American society.

In recent years, the study abroad movement among Chinese students has experienced many significant changes. One notable trend has been the dramatic increase in the number of Chinese students pursuing undergraduate studies abroad. Focusing on this student population, the next section examines Chinese international undergraduates' background characteristics and other issues and concerns that need further attention from researchers and practitioners.

Profiles of Current Wave of Chinese International Undergraduates

The current wave of Chinese students pursuing undergraduate education overseas can be traced back to the late 1990s, when Chinese undergraduates began to study in British, Canadian, Australian, and New Zealand colleges and universities (Bai, 2008; Counsell, 2011; Ward & Masgoret, 2004; Yang, 2007). However, American colleges and universities remained a distant dream to most Chinese undergraduates because of competitive admission requirements and America's tight visa restrictions. In the mid-2000s (IIE, 2013; Stevens, 2012), American colleges and universities sensed "a friendlier attitude among U.S. embassies and consulates which review visa applications" (Marklein, 2009, para. 6) and began recruiting in China. Due to China's booming economy in recent

decades, many Chinese families can afford and are willing to send their children to study in the U.S.

Li and Bray (2007) noted that the majority of Chinese undergraduates are the products of China's one-child policy, which was initiated in the late 1970s. According to Fong (2011), China's one-child policy has a broad range of social, economic, and psychological effects on child development. The policy also allows for the concentration of family resources, which makes overseas education more affordable for many Chinese families. Zhang and Hagedorn (2011) found that many Chinese international undergraduates are from urban middle class families and their parents usually have postsecondary education experience. However, Bai (2008) stated that Chinese international undergraduates are more likely to come from wealthier families whose parents are willing to invest in their overseas education. Bai's statement was supported by the results of a survey of international students who were interested in studying in America (Choudaha, Orosz & Chang, 2012). Among Chinese respondents, 60% indicated that they had adequate financial resources to support their overseas education, and 25% reported that they had previously spent time overseas. In contrast, among Indian respondents, 27% had adequate financial resources for overseas education, and 10% had previous overseas exposure. Additionally, White (2011) observed that Chinese international undergraduates are gradually moving away from business and engineering majors and are growing more comfortable with humanities majors.

The motivation of Chinese undergraduates studying abroad has been well researched (Bai, 2008; Bodycott & Lai, 2012; Counsell, 2011). Among the different conceptual frameworks employed, the "push-pull" factors have drawn much attention

from researchers (Bodycott, 2009; Li & Bray, 2007; Mazzarol, 2002; Yang, 2007). According to Mazzarol (2002), the push factors “operate within the source country and initiate a student’s decision to undertake international study,” while the pull factors “operate within a host country to make that country relatively attractive to international students” (p. 82). Yang (2007) listed several push factors that affect Chinese students’ study abroad decisions. These factors include China’s strong economy, which makes the cost of foreign education more affordable, benefits or perceived benefits of study abroad experiences (e.g., direct exposure to foreign languages and culture), inadequate supply of places in China’s higher education system, and favorable policies from the Chinese government that support study abroad activities. On the other hand, Bodycott (2009) identified 10 pull factors that affect Chinese students’ choice of international study destination. These factors include institutional ranking, recommendations from relatives and friends, the cost of studying abroad, availability of financial aid, and many others.

However, as a conceptual framework, the push-pull factors have some limitations. Bodycott and Lai (2012) noted that the push-pull factors fail to take into account cultural differences and treat Chinese students as highly independent individuals. Li and Bray (2007) found that the outflow of Chinese students is driven by both excess and differentiated demand. For students who cannot get into a Chinese college or university, the choice of international study is influenced by excess demand. However, for those who can secure a place at home but prefer quality higher education abroad, the decision is motivated by differentiated demand (Li & Bray, 2007). Li and Bray’s findings were supported by several other studies (Counsell, 2011; Yang, 2007). For example, Counsell (2011) found that 4% of Chinese students who participated in his study chose to study in

the UK because they could not secure a place at a Chinese college or university. Based on this finding, Counsell (2011) argued that for some students, “studying abroad was not their preference but rather something effectively forced upon them” (p. 52). Counsell (2011) also argued that many Chinese students might be “attracted to some UK universities because those UK universities accept overseas applicants with relatively low entrance qualifications” (p. 52).

Confucian culture plays an important role in Chinese society. Children growing up in Confucian culture are taught to value education, respect their parents, and work diligently (Zhang, 2005). Recognizing the importance of Chinese culture, Bodycott and Lai (2012) examined the influence of Chinese culture on the decision to undertake cross-border higher education. By conducting surveys and interviews with Chinese students working toward undergraduate degrees in Hong Kong, Bodycott and Lai (2012) found that despite the profound social and economic changes that have occurred in Chinese society, traditional Confucian values were still followed by Chinese students and their parents. In the study, Bodycott and Lai (2012) identified two types of students, those who initiated the idea of undertaking cross-border study and those whose parents raised the idea. Although Chinese students were increasingly involved in the study abroad decision-making processes, it was their parents who were more likely to make the final decisions on choice of country, university, and program. Bodycott and Lai (2012) also found that the majority of study participants were not satisfied with the decision-making processes and the outcomes. However, these students believed that their parents were acting in their interests. Therefore, they chose to accept the decision. Nevertheless, Chinese students’

perception of their level of participation in the decision-making processes affected their future study and long-term well-being (Bodycott & Lai, 2012).

Zhang and Hagedorn (2011) found that 57% of participants in their study chose to use a third-party education agent in their application to American colleges and universities. According to these authors, the main reasons for using an education agent included unfamiliarity with American college and visa application processes and a lack of knowledge about the American education system. Students who did not use an agent were more likely to report having study abroad experience or having relatives or friends who helped with their applications. The cost of the service also played a role in determining whether to use an agent. Zhang and Hagedorn (2011) also found that younger students, less academically prepared students, and students with less educated parents were more likely to use an agent. Additionally, these authors reported that the majority of students who used an agent were satisfied with the professional services they received. However, contrary to Zhang and Hagedorn's (2011) findings, Bodycott (2009) found that Chinese parents were reluctant to use agents for anything other than information gathering. Bodycott (2009) also found that when a family did decide to use an agent, it was likely that the parents would do all the negotiating and that the student would be seldom involved.

A national survey conducted by the New Zealand Ministry of Education revealed interesting and contradictory results about Chinese students studying in New Zealand (Ward & Masgoret, 2004). Overall, the academic performance of Chinese students was better than the average for all international students studying in New Zealand. However, Chinese students were least satisfied with their education experience among several

groups of international students who participated in the study. Specifically, Chinese students were less likely to interact with their New Zealand peers and have New Zealand friends and were more likely to feel culturally excluded in New Zealand classrooms and discriminated against by host nationals. These findings indicated that Chinese students had difficulty integrating into the university environment and the New Zealand society. However, despite these problems, Chinese students were more likely to plan to remain in New Zealand after completing their degree programs (Ward & Masgoret, 2004). In a related study examining the apparent contradictions demonstrated by Chinese students in New Zealand, Bai (2008) found that Chinese students' dissatisfaction with their education experiences was primarily caused by their anger over the rapidly increased cost of studying and living in New Zealand. On the other hand, the author found that overall Chinese students were satisfied with the quality of New Zealand education.

In short, the previous two sections provide a historical overview of Chinese students' participation in U.S. higher education. Not only does this overview help put the study of the current wave of Chinese international undergraduates in its historical context, but it also helps lay a foundation for the examination of factors that affect Chinese undergraduates' academic achievement in the U.S.

Factors Influencing College Student Success

In America, college student success has gradually become an important issue and is a leading item on the national agenda (Cook & Pullaro, 2010; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007). Stagnant college graduation rates coupled with the achievement gap between White and minority students have fueled public demand for

accountability from public institutions of higher education (Bailey, Calcagno, Jenkins, Leinbach, & Kienzl, 2005; Gold & Albert, 2006; Nora, 2002). Understandably, the examination of the factors that affect college student success has sparked a growing interest among higher education scholars and practitioners (Kim, Newton, Downey, & Benton, 2010; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Kuo, Hagie, & Miller, 2004; Li, Chen, & Duanmu, 2010; McKenzie & Schweitzer, 2001; Pascarella, Terenzini, & Hibel, 1978; Robbins, Lauver, Le, Davis, Langley, & Carlstrom, 2004).

While many studies have focused on traditional indicators of college student success such as grade point average (GPA), persistence rates, and graduation rates (Kuh et al., 2008; Stoyhoff, 1997), scholars have recently begun to call for a broad definition to accommodate economic realities and workforce development needs. Braxton (2006) identified eight indicators of college student success, including academic attainment, acquisition of general education, development of academic competence, development of cognitive skills and intellectual dispositions, occupational attainment, preparation for adulthood and citizenship, personal accomplishments, and personal development. In addition, Kuh et al. (2007) defined student success as “academic achievement; engagement in educationally purposeful activities; satisfaction; acquisition of desired knowledge, skills, and competencies; persistence; and attainment of educational objectives” (p. 10). In the following three sections, a range of factors that affect college student success as well as international student success are reviewed first, and then a model is proposed that could be used to predict the academic achievement of Chinese undergraduates at American colleges and universities.

Demographic Factors

Student demographic variables have long been included in studies of college student retention and academic performance (Astin, 1977; Chapman & Pascarella, 1983; Trent & Medsker, 1968). Tinto (1975) stated that students enter college with a range of background characteristics and personal attributes including gender, race, socioeconomic status, and family support and encouragement. These characteristics affect students' initial commitment to the institution and their goal of graduation. Mortenson (2003) reported that men received the majority of bachelor's degrees in all 50 states in 1970. However, the trend has gradually been reversed. By 2001, the majority of bachelor's degrees were awarded to women. Paulsen and St. John (2002) found that social class had an influence on academic achievement and postsecondary aspirations. Compared with their middle- and upper-income counterparts, poor and working-class students were more likely to earn "A" grades. However, their aspirations for postsecondary educational attainment were substantially lower than those of middle- and upper-income students. Anaya and Cole (2001) found that Latina/o students' academic achievement is positively related to family educational background. Students with two parents having college degrees earned higher college grades than students with none or just one parent having a college degree.

However, studies have reported inconsistent results about the relationship between some demographic variables and academic performance and persistence. For example, as far as age is concerned, Clark and Ramsay (1990) found a significant relationship between age and academic performance, while McKenzie and Schweitzer (2001) found no significant difference in college GPA across different age groups. As for

gender, contradictory findings have also been reported. Peltier, Laden, and Matranga (1999) found that gender had a significant relationship with persistence, with female students more likely to persist than male students. However, Reason (2001) found that gender was not significantly related to the between-year retention of undergraduate students in multivariate regression analyses but was a significant predictor in a simple model. Reason (2001) suggested that interactions between gender and other variables might be important.

Academic Factors

High school achievement variables such as GPA and ACT/SAT scores are important predictors of college student success and have been included in almost every comprehensive study aiming to predict postsecondary academic performance, persistence, and degree attainment (Astin, Korn, & Green, 1987; Braxton, Duster, & Pascarella, 1988; McKenzie & Schweitze, 2001; Pascarella & Terenzini, 1980; Tross, Harper, Osher, & Kneidinger, 2000). In a national study, Astin, Korn, and Green (1987) found that high school GPA and SAT/ACT score were “the two strongest predictors of retention” (p. 39). According to these authors, students entering college with an average high school GPA of “A” were seven times more likely to graduate from college within 4 years than students entering college with an average high school GPA of “C”. Similarly, students with the highest SAT scores were six times more likely to graduate from college within 4 years than students with the lowest SAT scores. These authors also found that high school GPA and SAT/ACT score explained 12% of the variance in retention. In contrast, Pike and Saupe (2002) reported that high school grade accounted for 25% to

33% of the variance in first-year college grades. In a recent study using 20 years of national data, Lotkowski, Robbins, and Noeth (2004) confirmed that high school GPA and standardized test scores are the most important predictors of college student persistence and academic achievement.

Additionally, variables such as high school class rank (Kuncel, Hezlett, & Ones, 2001), the rigor of high school curriculum (Adelman, 1999, 2006), and learning skills and study efforts (Dika, 2012) have been found to have predictive power for college students' academic achievement. For example, studies have shown that college freshmen who completed 4 years of math, science, and English in high school were more likely to persist to graduation than those who did not complete that coursework (Adelman, 1999; Warburton, Bugarin, & Nunez, 2001). Studies have also found that high-level high school mathematics courses such as algebra II, precalculus, trigonometry, and calculus were the best high school predictor of academic achievement in college (Adelman, 1999, 2006), and that students of color who took these courses were more likely to complete college than those who did not take these courses (Swail, Cabrera, Lee, & Williams, 2005). However, it has been found that compared with White students, students of color are less likely to attend public schools that offer high-level mathematics courses (Adelman, 1999, 2006).

As for learning skills and study efforts, Abbott-Chapman, Hughes, and Wyld (1992) found that students with poor study habits were more likely to encounter academic adjustment problems in their transition from high school to college and were less likely to persist to college graduation. Astin (1993) emphasized the importance of time spent on learning to persistence and degree attainment. Dika (2012) found that study effort had

significant, positive relationships with college GPA of first-year, male, female, and continuing-generation students but not first-generation students. However, study effort explained only 1% to 4% of variance in college GPA beyond that explained by background variables (Dika, 2012).

Sociological Factors

Tinto's model of student integration (1975, 1987, and 1993) is one of the most influential models of student departure (Braxton, Sullivan & Johnson, 1997; Pascarella & Terenzini, 2005). The central concept of Tinto's model is the level of students' integration into the academic and social systems of the college. The more integrated students are, the more likely they will persist in college. Over the years, Tinto's model has received much criticism, including lack of robust empirical support (Braxton, Sullivan & Johnson, 1997) and bias against students of color (Tierney, 1992, 1999). However, despite these criticisms, most scholars agree that peer interactions and student-faculty interactions play an important role in college student success (Anaya & Cole, 2001; Astin, 1993; Braxton, Brier, & Steele, 2007; Cole, 2007; Cuseo, 2003; Dika, 2012; Erkut & Mokros, 1984; Kuh et al., 2008; Kuh & Love, 2000; Pascarella & Terenzini, 1991; Pascarella, Terenzini, & Hibel, 1978).

Peer Interactions. Earlier studies examining the relationship between peer interactions and academic achievement reported mixed results. For example, O'Shea (1969) found that the time students spend socializing with peers is negatively associated with the time they spend in serious study. More recently, scholars have emphasized the important, positive role peer interactions play in college student success (Astin, 1993;

Tinto, 1993). For example, Astin (1993) suggested that peers are “the single most potent source of influence” (p. 398) and that a variety of peer interactions including discussing course content with other students and working on class-related group projects can enhance student learning. Hurtado, Carter, and Spuler (1996) reported that college peers provide more support for Latino students than their parents. These authors also found that the two types of support play different roles, with peer support promoting social adjustment of college students and parental support enhancing emotional adjustment. Rodriguez, Mira, Myers, Morris, and Cardoza (2003) found that peer interactions are related to college students’ psychological adjustment because peers are better positioned to help solve the challenges students face. Richardson and Skinner (1992) suggested that peers are important to student success because they can form study groups, share class notes, and offer valuable advice regarding classes and learning strategies. Additionally, Pascarella and Terenzini (1991) found that peer interactions also affect degree completion.

Student-Faculty Interactions. Student-faculty interactions have been studied since the late 1960s (Cole, 2007). Similar to research on peer interactions, earlier studies on student-faculty interactions reported mixed results. For example, Astin (1977) found that interacting frequently with faculty contributes to student developmental outcomes but not to academic outcomes. Similarly, Endo and Harpel (1982) found that neither formal nor informal student-faculty interactions affect students’ academic achievement. On the other hand, Pascarella, Terenzini, and Hibel (1978) reported that student discussions with faculty about intellectual matters, course-related issues, and career goals had significant impacts on their academic performance. More recently, many studies

controlled for student background characteristics and reported positive results of the relationship between student-faculty interactions and academic performance (Anaya, 1992, 1999; Astin, 1993).

Over the years, many factors that affect student-faculty interactions have been identified and their influence on student success has been studied. Cole (2007) reported that a variety of student and institutional characteristics such as gender, high school GPA, living on campus, and institutional size and type affect the quantity and quality of student-faculty interactions. Cole (2007) also reported that student-faculty interactions enhance students' cognitive and affective outcomes, including their educational aspirations and satisfaction, academic performance and persistence, and perceptions of the learning environment. Conversely, negative contacts with faculty (Cole, 2008) or negative perceptions of their relationship with faculty (Wlodkowski & Ginsberg, 1995) were negatively related to students' academic performance and their motivation to learn. However, despite these findings, scholars do not fully understand how student contacts with faculty contribute to student success and whether these relationships are causal (Kuh et al., 2007). Kuh et al. (2007) suggested that faculty validation and student empowerment may link student-faculty interaction with educational outcomes. Moreover, Mook (2002) proposed a circular relationship: "high achievers interact more, and high interactors achieve more" (p. 159).

Furthermore, a number of studies that examine the interactions between faculty and traditionally underrepresented students merit a closer look. Anaya and Cole (2001) examined the influence that student-faculty interactions have on college GPA of Latina/o students and found that both academically related and informal contacts with faculty as

well as the perceived quality of the relationship enhance Latina/o students' academic performance. Cokley et al. (2006) found that African American students' interactions with professors who were perceived as approachable and having a caring attitude had a significant, positive relationship with their college GPA. Dika (2012) investigated the relationship between student-faculty interactions and college GPA in Puerto Rico.

Descriptive statistics indicated that although the frequency of student interactions with faculty was generally low across student groups, the quality of relationships with faculty was high. More importantly, results from regression analyses showed that the quality of relationships with faculty rather than the quantity of interactions with faculty was significantly and positively related to student academic achievement. Overall, these studies indicate that the quality of student-faculty interactions matters to minority students' academic performance.

Organizational Factors

Organizational characteristics and some promising programs and practices affect student success (Kuh et al., 2007; Tinto, 1993). Tinto (1987) noted that "Student retention is at least as much a function of institutional behavior as it is of student behavior" (p. 177). However, research on institutional characteristics such as size, sector, control, and mission has found that their effects on student success are "trivial or inconclusive" when student characteristics are taken into account (Kuh et al., 2007, p. 71). Therefore, the review in this subsection mainly focuses on the literature on first-year programs and faculty teaching approaches.

Since the early 1980s, attention to the first year of college has increased significantly to a national movement that focuses on the first-year student experience. Upcraft and Gardner (1989) noted that “student success is largely determined by experiences during the freshmen year” (p. 1). As a result, programs intentionally designed to ease student transition from high school to college have spread across the country. Gardner (2001) reported that the most effective first-year programs and interventions include orientation, advising, and residence life; first-year seminars; learning communities; service learning; academic support services; recruiting upperclassmen as student leaders to serve in various capacities; and health education. Many studies have found that these programs are linked to positive outcomes for first-year students (Cuseo, 2003; Upcraft, Gardner, & Barefoot, 2005; Upcraft, Mullendore, Barefoot, & Fidler, 1993). For example, Strumpf and Hunt (1993) reported that a freshman-year seminar was positively related to college student retention. However, research on first-year programs in Canada also revealed that “these programs tend to be passive or reactive rather than intrusive; they depend on voluntary self-selection into often therapeutic educational programs” (Gilbert, Chapman, Dietsche, Grayson, & Gardner, 1997, p. 109). These findings indicate that despite their positive effects on college student success, first-year programs have room for improvement.

Research has shown that faculty teaching approaches are another important organizational factor that affects student success. Braxton, Bray, and Berger (2000) found that two measures of student perceptions of faculty teaching skills—organization and preparation as well as instructional skill and clarity—demonstrate a significant influence on students’ social integration, institutional commitment, and intent to reenroll. In

another study conducted at a highly selective, private university, Braxton, Milem, and Sullivan (2000) found that the practice of active learning played an important role in student departure process. Specifically, four types of active learning classroom behaviors—classroom discussions, higher-order thinking activities, exams limited to knowledge of facts, and group work—were examined in the study. Among them, classroom discussions, higher-order thinking activities, and exams limited to knowledge of facts were found to have a significant relationship with social integration, subsequent institutional commitment, and/or students' intent to return. However, group work failed to reach a significant relationship with any of the three constructs. Additionally, in a longitudinal study of first-year students at a large public university, Pascarella, Seifert, and Whitt (2008) found that students' exposure to organized and clear instruction had a significant influence on their first- to second-year retention.

Psychological Factors

College student success has preoccupied psychological researchers for a long time (Le, Casillas, Robbins, & Langley, 2005; Multon, Brown, & Lent, 1991; Robbins, Lauver, Le, Davis, Langley, & Carlstrom, 2004). Among the many psychological determinants of success in postsecondary education are achievement motivation, academic self-efficacy, and sense of belonging.

Many studies have shown that achievement motivation is a strong predictor of college student success (Ames & Ames, 1984; Caraway, Tucker, Reinke, & Hall, 2003). In a large-scale meta-analysis, Robbins et al. (2004) examined the relationship between psychological and study skill factors (PSFs) and college outcomes as measured by GPA

and persistence. The results of the meta-analysis showed that achievement motivation was among the strongest predictors for college GPA but not for persistence. Johnston (2006) also reported a statistically significant relationship between achievement motivation and college GPA. Additionally, Dennis, Phinney, and Chuateco (2005) investigated the role of motivation, parental support, and peer support in the academic success of first-generation minority college students. Two types of motivation—career/personal motivation and expectation motivation—were included as predictor variables. According to these authors, career/personal motivations refer to students' motivations to go to college due to personal interest, intellectual curiosity, and the desire to attain a rewarding career, while expectation motivations refer to students' motivations to go to college in order to meet family expectations. The study found that career/personal motivation was positively related to college adjustment but not to cumulative GPA and college commitment, and that expectation motivation was not significantly related to any outcome variables.

Academic self-efficacy can be defined as an individual's confidence in his or her ability to successfully perform certain academic tasks (Schunk, 1991). Many studies have found significant relationships between academic self-efficacy beliefs and academic performance (Lent & Hackett, 1987; Pintrich & Schunk, 1995; Siegel, Galassi, & Ware, 1985) and persistence (Lent, Brown, & Larkin, 1984; Nora, 2002). For example, Multon, Brown, and Lent (1991) reported that academic self-efficacy beliefs explained approximately 11% to 14% of the variance in academic performance and persistence. Furthermore, Gore (2006) found that the relationship between academic self-efficacy beliefs and college success depends on "(a) when self-efficacy beliefs are measured, (b)

what aspect of self-efficacy is being measured, and (c) what college outcome one wishes to predict” (p. 112). For example, Gore (2006) reported a relatively weak relationship between self-efficacy beliefs and academic performance when measured at the beginning of the first semester of college but a stronger relationship when measured at the end of students’ first semester in college.

Sense of belonging was recently introduced to the higher education research by Hurtado and Carter (1997), and it can be defined as “an individual’s sense of identification or positioning in relation to a group or to the college community” (Tovar & Simon, 2010). Studies have identified a variety of predictors of sense of belonging, including race (Gilliard, 1996), interactions with peers and faculty (Hoffman et al. 2003; Nora, Kramer, & Itzen, 1996), co-curricular activities (Hurtado & Carter, 1997), perceptions of campus racial climate (Cabrera, Nora, Terenzini, Pascarella, & Hagedorn, 1999), living on campus (Berger, 1997), and the use of recreation facilities (Belch, Gebel, & Maas, 2001). In addition, studies have emerged that examine the effects of sense of belonging on college student success. For example, Maestas, Vaquera, and Munoz Zehr (2007) reported that sense of belonging is “a critical aspect in retaining all students, and particularly students of color” (p. 238).

In summary, college student success has gradually become a major issue for policymakers, the public, and university administrators. Many factors—including demographic, academic, sociological, organizational, and psychological factors—play an important role in college student success. Compared with their domestic counterparts, international students have more challenges and stresses mainly because their languages and cultures are often different from those of their host nationals (Andrade, 2006).

Hechanova-Alampay, Beehr, Christiansen, and Van Horn (2002) noted that international students often “grapple with adjusting to new social customs and norms, defining their role as foreigners, ignorance of host nationals about home culture, difficulty in making new social contacts, problems with verbal and non-verbal communication, sometimes racial discrimination and relationship problems” (p. 460). As such, international student success is affected by some additional factors.

Factors Influencing International Student Success

Unlike the rich literature on college student success, the literature on international student success is limited (He & Banham, 2009; Pelletier, 2003). Andrade (2005) noted that despite the importance of international students to the U.S., “little interest in international student adjustment and success has been generated in higher education literature” (p. 103). The review in this section focuses on the literature available regarding international students’ cross-cultural learning experiences and investigates the factors that affect their college success. The section is divided into three subsections that address international students’ academic adjustment factors, social adjustment factors, and psychological adjustment factors, respectively.

Academic Adjustment Factors

For non-English-speaking students studying in English-speaking countries such as U.S., U.K, Canada, Australia, and New Zealand, the language barrier is probably “the most significant, prevalent problem” (Mori, 2000, p. 137). One study found that compared with African students, Asian students had less practice using English, and

many of them had serious difficulties in performing class-related tasks inside and outside classroom (Heikinheimo & Shute, 1986). In reviewing empirical research related to the adjustment and academic achievement of international students, Andrade (2006) concluded that the adjustment problems of international students were mainly caused by English language proficiency and cultural differences, while their academic achievement was affected by English proficiency, academic skills, and educational background. Specifically, Andrade (2006) found that TOEFL scores and strong writing skills were good predictors of academic achievement for international students. Andrade (2006) also found that the achievement of international undergraduate students was less affected by their TOEFL scores than that of international graduate students.

Stoynoff (1997) reported that TOEFL score was significantly associated with international student success as measured by GPA, earned credit hours, and three other measures of academic achievement. Stoynoff also found that international student success was related to selected learning and study strategies, including integrating social assistance into learning, spending more time studying, and enhancing test taking skills. Interestingly, Stoynoff (1997) found that international students with low TOEFL scores also managed to achieve academic success. Based on these findings, Stoynoff (1997) argued that academic success is a multidimensional phenomenon that is affected by English language proficiency, learning and study strategies, and some personal characteristics.

Other studies, however, have reported that standardized English test scores either are not significantly correlated with international students' academic performance (Krausz, Schiff, Schiff & Van Hise, 2005) or are relatively weak predictors of

international student success when other factors such as previous educational experiences are taken into account (Gunn-Lewis & Awhina, 2000). The relationship between English language proficiency and academic performance may also be mediated by another variable—academic discipline or major field. Light, Xu, and Mossop (1987) found that the academic performance of international students in the field of natural sciences was less affected by English language proficiency than the academic performance of international students in the fields of humanities and social sciences. Similarly, Chongolnee (1978) found that among international students studying at a U.S. university, engineering majors had the highest performance, followed by physical science and biological science majors, with social science majors having the lowest academic performance.

In addition to language barriers, non-English-speaking international students studying in English-speaking countries are also disadvantaged by their unfamiliarity with Western education systems, teaching methods, and performance expectations (Heikinheimo & Shute, 1986; Lewthwaite, 1996; Wan, 2001). Aubrey (1991) reported that Asian, Middle Eastern, and African students were trained to sit quietly in lecture-style classes and take notes to memorize in preparation for exams usually given only once or twice a year. Therefore, these students were not accustomed to or comfortable in American classrooms, where they had to frequently participate in class discussions, write essays and term papers, and take “pop” quizzes and exams (Thomas & Althen, 1989). Lewthwaite (1996) found that many international students were surprised by the amount of freedom they had in conducting research in New Zealand, including choosing their research areas and research design. Lewthwaite (1996) also found that some international

students had little knowledge of Western-style research methodologies and could not join existing research teams without additional training.

Many studies have found that compared with host nation students, international students place higher priority on their academic achievement and often spend much more time studying (Andrade, 2006; Dozier, 2001; Lewthwaite, 1996; Wan, 2001; Zhao, Kuh, & Carini, 2005). For example, Lewthwaite (1996) noted that making academic adjustments and completing academic requirements were very important to international students: “only when the above two were completed would they use the available resources and seek deeper cultural integration” (p. 182). Many reasons including performance expectations from home, poor language proficiency, and disappointment with their social life may explain international students’ dedication to their studies. However, although these compensating strategies contribute to their academic achievement (Andrade, 2006; Zhao et al., 2005), they also create some social and psychological adjustment problems for international students (Huang & Klinger, 2006).

Social Adjustment Factors

Studies have found that social adjustment factors have an impact on international student success. By interviewing a group of international students in their senior year at a private, religiously-affiliated university, Andrade (2005) found that certain aspects of persistence theories (e.g., peer interactions and student-faculty interactions) help international students ease their academic adjustment problems and enhance their persistence. Andrade (2005) also found that international students employed other strategies such as use of formal campus support services (e.g., the student development

center and the English as a Second Language program) and involvement in campus religious life to overcome their academic and social adjustment problems.

In another study using both quasi-experimental design and experimental design, Westwood and Barker (1990) examined the effects of participation in a peer-pairing program on academic achievement, persistence, and social adaptation among first-year international students studying in a Canadian and an Australian university. Each pair was formed by an international student and a host nation student based on criteria such as age, gender, field of study, and hobbies and interests. Once formed, participants were required to meet or be in contact with each other at least two times per month for a period of 8 months. The results of the study suggested that contact with host nation students was significantly associated with the academic performance and persistence of international students.

Psychological Adjustment Factors

Research has indicated that academic success is related to the psychological factors involved in the adjustment of international students (Klineberg & Hull, 1979). Cross-cultural learning is full of anxiety and stress (Hechanova-Alampay et al., 2002; Wan, 2001; Zhou, Jindal-Snape, Topping, & Todman, 2008), which may have negative effects on international student success. For example, based on a review of 56 articles related to international students' educational experiences, Andrade (2006) found that compared with resident students, "international students have greater adjustment difficulties and experience more stress and anxiety" (p. 143). In addition, Lewthwaite (1996) observed that many international students are "performing well academically but

hurting inside at feeling a failure at being intercultural” (p. 183). There are, however, psychological factors that may help international students ease their cross-cultural experiences and contribute to their academic achievement. For example, Chirkov, Vansteenkiste, Tao, and Lynch (2007) investigated the role of two motivational factors—the level of self-determined motivation and the content of goals—in students’ decision to study abroad and found that the level of self-determined motivation was positively related to students’ adaptation outcomes.

In a recent study examining the effects of a variety of academically and culturally related factors on the academic performance of international students at a U.K. university, Li, Chen, and Duanmu (2010) found that the perceived importance of academic success to family was negatively associated with the academic performance of international students. According to these authors, this negative relationship might be associated with the stress related to intensive study, high performance expectations from home, and financial pressure. Li, Chen, and Duanmu (2010) also found that both English writing skills and social communication with conationals were significantly correlated with international students’ academic performance. Furthermore, this study revealed that Chinese students’ low English proficiency and less active learning strategies were not significantly related to their academic achievement.

In addition to academic, social, and psychological adjustment factors, the literature on international student success has explored the impacts of certain demographic variables such as gender and age. However, mixed results have been reported between these variables and international students’ academic performance. For example, Scanlon (1990) found that female international students outperformed their

male counterparts in terms of GPA, while other researchers reported the opposite results (Gordon & Wyant, 1994; Phongsuwan, 1996) or no significant relationship between gender and academic performance (Park, Hayes, & Foster, 1994). Similarly, research has reported mixed results when measuring the relationship between age and academic performance, ranging from positive to negative to no effect at all (Ganz & Ganz, 1988; Roongrattanakool, 1998; Saisuphaluck, 1997).

In short, international students face many unique challenges in their cross-cultural learning, and accordingly, their success is subject to the influences of some additional factors, including academic adjustment factors, social adjustment factors, and psychological adjustment factors. American institutions of higher education must become more aware of international students' unique challenges and make extra efforts to support them. Essentially, American colleges and universities "cannot simply admit foreign students and expect them to adjust to life in a new country and educational system without appropriate support and programming" (Andrade, 2006, p. 133). Considering that Chinese students are the largest group of international students in the U.S. and their numbers are continuing to grow, American colleges and universities must devote more attention and resources to Chinese student success in American higher education.

A Preliminary Model for Predicting Chinese

Undergraduate Success in the U.S.

This review of literature on the factors that affect college student success and international student success identifies many variables that may be important predictors of academic achievement for Chinese international undergraduate students in the U.S.

Figure 1 illustrates a preliminary model emerging from the literature review. In the model, all the factors that affect college student success and international student success are consolidated into five categories: demographic factors, academic factors and academic adjustment factors, sociological factors and social adjustment factors, organizational factors, and psychological factors and psychological adjustment factors. These five consolidated categories of factors comprise the initial level of the model. Specific variables examined in the literature review align with the five initial categories. For example, variables such as high school GPA, ACT/SAT scores, TOEFL/GRE scores, learning skills, and study effort are included in the category of academic factors and academic adjustment factors. Most of these specific variables correspond to potential predictors of academic achievement for Chinese undergraduates in the U.S., many of which have been studied in the existing research related to Chinese students pursuing higher education abroad.

Additionally, after taking into account the Chinese context, admission type (i.e., direct admission or conditional admission), registration status (i.e., first-time freshmen or new transfer students), and the initiation of the idea to study abroad (i.e., by students themselves or by their parents) are added to the model as potential predictors for Chinese undergraduates' academic achievement. Admission type is important because it may determine the degree to which Chinese undergraduates are academically prepared for their overseas education. For example, it may be reasonable to assume that conditionally admitted Chinese students (e.g., pathway program students) are less academically prepared for college studies in the U.S. than directly admitted Chinese students. By the same token, registration status is added to the model because Chinese transfer students

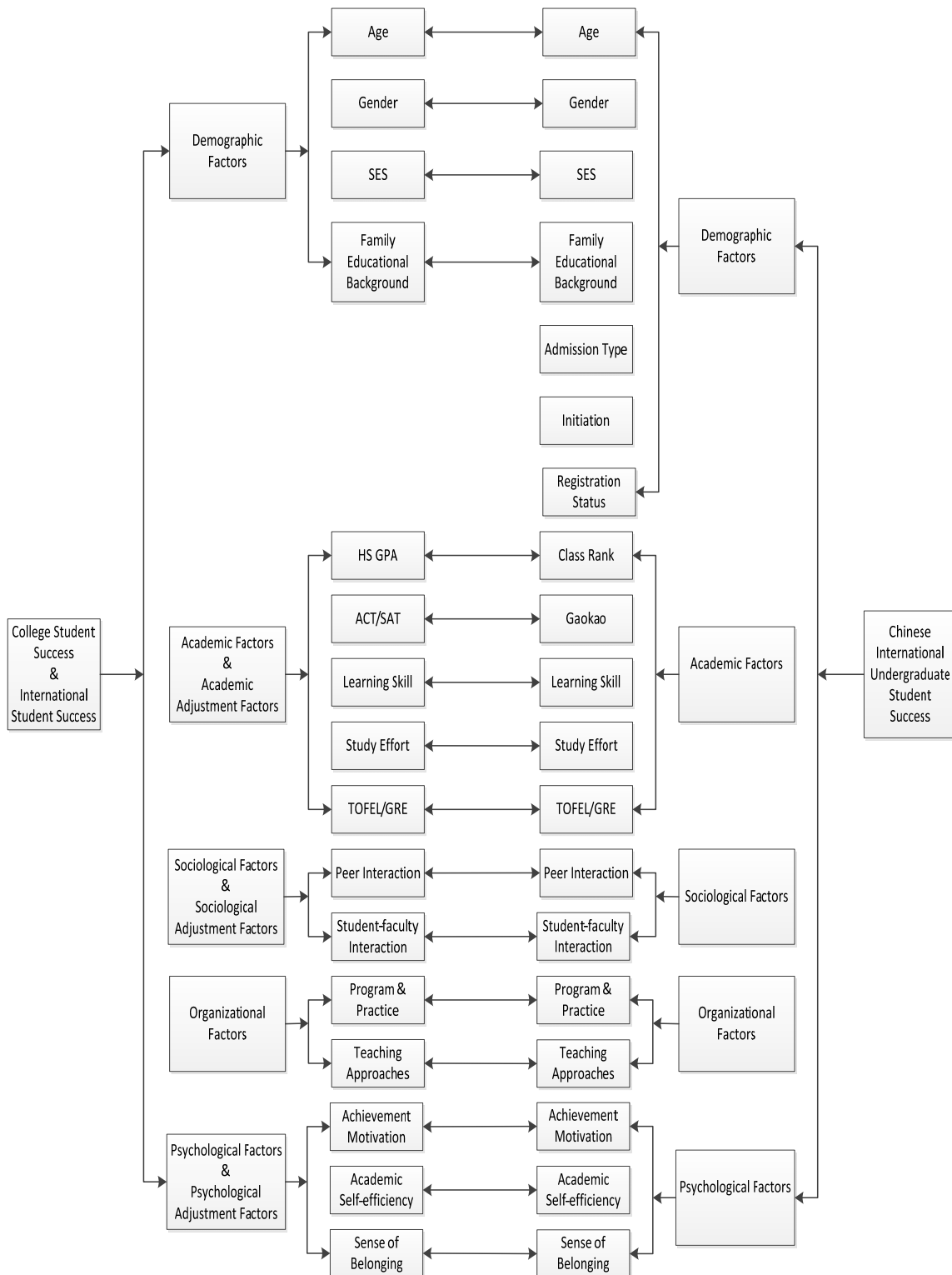


Figure 1. A Model for Predicting Chinese Undergraduate Success in the U.S.

have some previous college experience in China and may be more academically prepared for their studies in the U.S. than Chinese freshmen. Similarly, the initiation of the idea to study abroad is important because it may indicate Chinese students' commitment to their undergraduate education in the U.S. If a Chinese student initiates the idea of studying abroad, the student is likely to be motivated to perform well academically. Furthermore, due to the fraudulent application practices among Chinese students and the fact that few Chinese students take the ACT/SAT test, high school GPA and ACT/SAT scores are not included in the model. Instead, high school class rank and performance on the Gaokao are used in their places, respectively.

In short, a review of literature on college student success and international student success offers a preliminary model for predicting Chinese undergraduate success in American higher education. It is an ideal model incorporating all relevant predictor variables, most of which are supported by a substantial body of literature. The model also includes some variables related to Chinese context such as performance on the Gaokao and the initiation of the idea to study abroad. This model represents the first effort to empirically investigate the factors that affect Chinese undergraduate success in the U.S. As such, it is reasonable to expect that the model will continue to evolve as future studies shed more light on this topic.

Summary

This chapter presented a review of related literature to serve as the foundation for the study. The review was divided into four sections. First, the history of Chinese students in the U.S. coupled with their academic achievement as well as dimensions of

difficulties was examined. Then, the current wave of Chinese international undergraduates was profiled. Next, the factors that affect college student success were investigated. After that, the factors that affect international student success were discussed. Based on the literature review, a preliminary model was presented that could be used to predict Chinese undergraduates' academic achievement in the U.S.

CHAPTER 3

METHODS

This study utilized a convergent parallel mixed methods design (Creswell & Plano Clark, 2011) to develop a better understanding of the first-year academic experiences and achievement of Chinese international undergraduate students at the University of Utah. The convergent parallel design “occurs when the researcher collects and analyzes both quantitative and qualitative data during the same phase of the research process and then merges the two sets of results into an overall interpretation” (Creswell & Plano Clark, 2011, p. 77). In this chapter, all aspects of the research methodology used in this study are reported, and they are organized into the following sections: (1) research questions; (2) research design; (3) research setting; (4) data collection and analysis; (5) ethical considerations; (6) the role of researcher; and (7) summary.

Research Questions

Four sets of research questions guided this study.

1. What are the background characteristics of Chinese international undergraduate students at the U? Why and how do they choose to pursue undergraduate education at the U?

2. What are Chinese international undergraduate students' first-year academic experiences at the U? What challenges do they face? What are their coping strategies?
3. How do Chinese international undergraduate students perform academically during their first year of college at the U? Are they significantly different from their American counterparts and other international undergraduate students in terms of attempted credit hours, earned credit hours, cumulative grade point average (GPA), and first- to second-year persistence rates?
4. What factors predict Chinese international undergraduate students' cumulative first-year college GPA and first- to second-year persistence at the U?

Research Design

This study utilized a mixed methods design, which “involves the collection, analysis and integration of both qualitative and quantitative data in a single study” (Schiffedercker & Reed, 2009, p. 637). Compared with quantitative and qualitative research methods, mixed methods design undoubtedly is a newcomer. According to Creswell and Plano Clark (2011), mixed methods design “has had its roots over the past 20 years in several disciplines and fields of study” (p. xix), and until approximately a decade ago, researchers were still suspicious about its legitimacy. However, recent years have witnessed a tremendous interest in this approach to research (Creswell & Plano Clark, 2011). Indeed, Johnson and Onwuegbuzie (2004) presented mixed methods research design as “the third research paradigm in educational research” (p. 14).

The rationale for choosing a mixed methods design for this study rests on the nature of the research problem. Spector (1994) noted that “the methodology used should match the research question asked” (p. 391). Creswell (2003) stated that a mixed methods design is appropriate when there is “a research problem that incorporates the need both to explore and to explain” (p. 208). Because this study asks both qualitative questions to explore Chinese undergraduates’ academic experiences at the U and quantitative questions to explain their academic achievement, it is clear that a mixed methods design is most appropriate. In addition, the choice of a mixed methods design for this study is dictated by the complexity of the research problem. As previously discussed, Chinese undergraduates represent a rapidly growing student population on American campuses. However, little is known about their cross-cultural learning experiences. More importantly, as the literature review in the second chapter revealed, international student success is a complex issue that involves a variety of demographic, academic, sociological, organizational, and psychological factors as well as some cross-cultural adjustment factors. On the one hand, it is not uncommon for international students with limited English proficiency to achieve academic success (Stoynoff, 1997). On the other hand, international students who do well academically are likely to report “a less than satisfying social life” (Zhao, Kuh, & Carini, 2005, p. 211). Therefore, understanding Chinese undergraduates’ academic experiences and achievement requires an approach that can capture data that reflect these multiple aspects. In this situation, mixed methods research design is most appropriate because it “provides more evidence for studying a research problem than either quantitative or qualitative alone” (Creswell & Plano Clark, 2011, p. 12) and it “helps answer questions that cannot be answered by quantitative or

qualitative approaches alone” (Creswell & Plano Clark, 2011, p. 12). In other words, mixed methods design offsets the weaknesses of both quantitative and qualitative methods and enables greater insight into the research problem than either approach by itself.

Specifically, this study used a convergent parallel design, the “most well-known approach to mixing methods” (Creswell & Plano Clark, 2011, p. 77). The convergent parallel design is also referred to as the convergent design, and has gone by other names such as simultaneous triangulation and convergent model. According to Creswell and Plano Clark (2011), a convergent parallel design “occurs when the researcher uses concurrent timing to implement the quantitative and qualitative strands during the same phase of the research process, prioritizes the methods equally, and keeps the strands independent during analysis and then mixes the results during the overall interpretation” (pp. 70-71). Essentially, there are four major steps in a convergent parallel design. First, quantitative and qualitative data are collected concurrently and separately. Second, two types of data are analyzed separately and independently. Third, the results of the two data sets are merged. Finally, the merged results are interpreted.

The procedures for implementing the convergent parallel mixed methods design are outlined in the procedural diagram in Figure 2. As illustrated in the figure, in the first step, I collected both quantitative and qualitative data about Chinese undergraduates at the U. The two types of data were collected in three phases. In phase 1, a survey instrument was used to collect Chinese undergraduates’ background information, including their demographics, previous education experiences, study abroad decision-making processes, and academic experiences at the U. In phase 2, semistructured

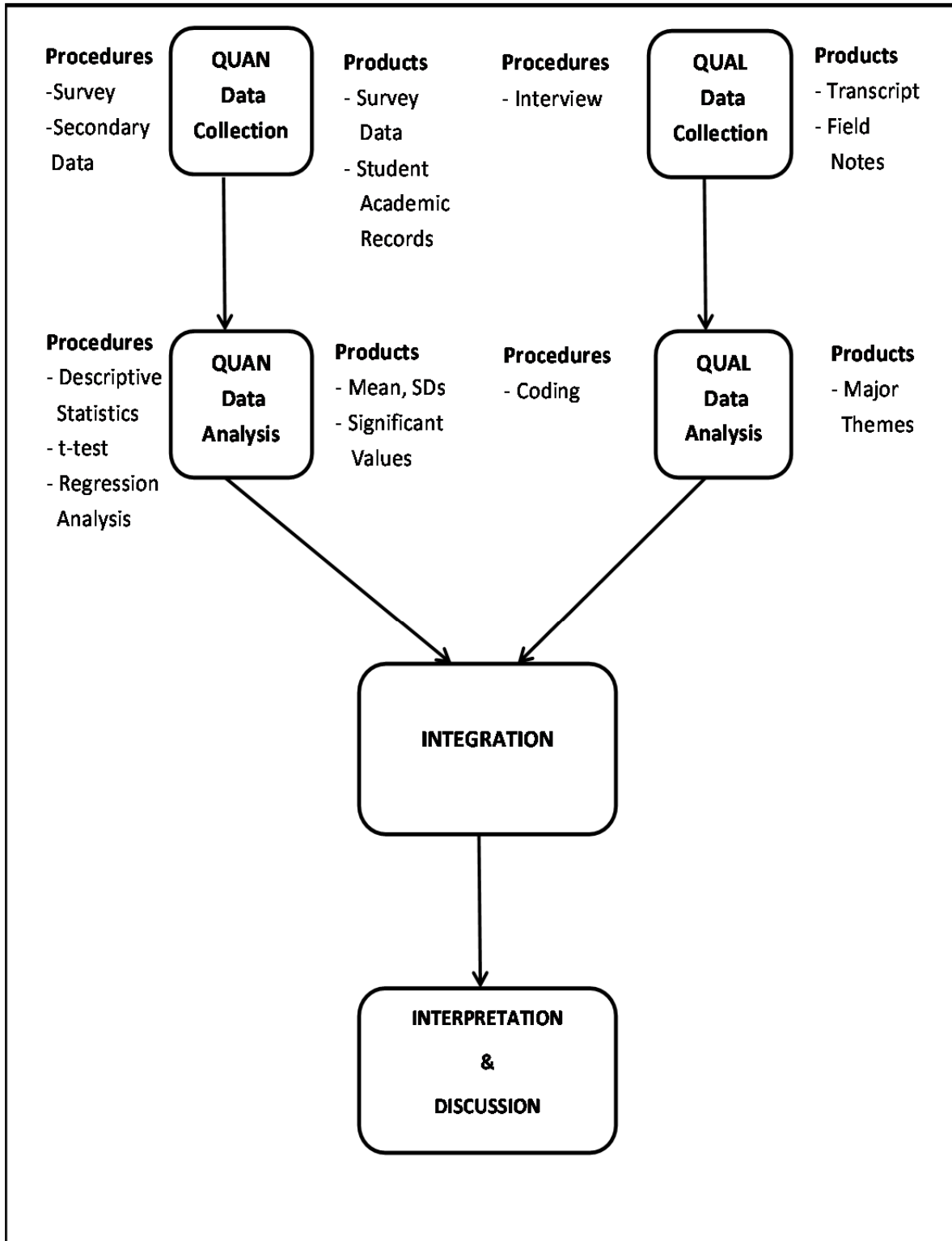


Figure 2. The Procedural Diagram for Implementing the Convergent Parallel Design

interviews were conducted with Chinese undergraduates to collect in-depth information about their academic experiences at the U, including the challenges they faced and the coping strategies they used. In phase 3, academic records of Chinese undergraduates as well as their American counterparts and other international undergraduates were collected. After quantitative and qualitative data were gathered, the two types of data were independently analyzed, integrated, and then interpreted.

Research Setting

This study was conducted at the University of Utah, which is a large, public research university in the Mountain West of the United States. As the state's flagship university, it offers more than 100 undergraduate majors and more than 90 graduate degree programs. In the fall of 2012, the U had a total enrollment of more than 32,000, with undergraduates accounting for approximately 77% of the student population. Additionally, about 44% of students were female, and 71% were White students. The U is a commuter school, with only about 10% of students living on campus.

The U is not affiliated with any religion. However, a survey by the U's Office of Assessment, Evaluation, and Research revealed that more than 40% of its students are members of The Church of Jesus Christ of Latter-Day Saints (LDS). According to LDS church doctrines, young men between the ages of 18 and 25 who meet standards of worthiness are strongly encouraged to serve a 2-year, full-time mission; young women at age 19 and above are encouraged to serve as missionaries for 18 months. These practices have significant impacts on University of Utah students and their academic careers, particularly on their first- to second- year persistence. For example, a high proportion of

LDS freshman students choose to serve as missionaries after their first term at the U.

Although many of them re-enroll at the U at a later time, some decide to transfer to other institutions or drop out of college.

In the fall of 2012, the U reported an international student population of 2,759, making up about 9% of its total enrollment. Among its international population, 1,179 students were from the People's Republic of China. Like many other American colleges and universities, the U has experienced a dramatic increase in the number of Chinese undergraduates over the past 10 years. In the fall of 2002, there were only 63 Chinese undergraduates studying at the U. By the fall of 2012, the number climbed to 775, representing a 1,230% increase.

The rise in Chinese undergraduate enrollment was most related to the intensified recruitment efforts by the U over the past several years, which particularly targeted Chinese undergraduate students. In 2009, the U and Kaplan Global Solutions, a division of Kaplan, Inc., reached a 5-year contract to establish a Global Pathways program starting in January 2010 that would prepare students from around the world for admission to bachelor's degree programs at the U. The 12-month program combined intensive academic courses, English-language training, and university study skills preparation during the first year of an undergraduate program. Students who were accepted into the program and successfully completed all University-determined requirements matriculated directly into the U to complete their degrees. Kaplan provided marketing and admissions support as well as a wide range of student support services, including assistance with immigration requirements and on-campus socio-cultural preparation services. The U oversaw all admissions and academic criteria for the program and designed and taught all

of the classes. The 5-year contract will officially end on December 31, 2014, and the U has decided not to renew the contract with Kaplan Global Solutions. The main reasons behind the U's decision to terminate the Global Pathways program included quality concerns and the determination that the program no longer fit the U's strategic direction.

The U also participated in the U.S.-Sino Pathway Program (USPP), a partnership between the Consortium of North American Universities and global education service provider Kaplan China. USPP targeted Chinese students exclusively. Before enrolling at one of the partnership institutions, Chinese students selected for the program spent a foundational year studying at one of eight Kaplan China centers. The curriculum not only covered academic subjects but also provided an opportunity for students to practice English in an academic setting, become familiar with English language textbooks, and develop skills such as using PowerPoint. The preparation culminated in a third term, the Summer Bridge, during which students studied at an American university. After the three terms, USPP students enrolled in one of the consortium universities as sophomores. The U began to participate in the program in fall 2010, and decided to end the partnership in fall 2012. Several factors, including quality concerns, led to the decision.

The U was chosen for this study mainly because it has an increasingly diverse student population, including a diverse Chinese undergraduate subpopulation. This study context made it possible to compare the academic performance of Chinese undergraduates with that of their American counterparts and other international undergraduates, one research question this study aims to investigate. In addition, the study context provided a rich environment for examining Chinese undergraduates' background characteristics and their academic experiences on an American campus, two

other research questions this study aims to explore. Furthermore, the U was selected as the research site because I have ready access to the institution's academic data. As I will discuss later, I am an institutional researcher employed by the Utah System of Higher Education (USHE), which consists of eight public colleges and universities, including the U. My job responsibilities include collecting and analyzing all USHE institutions' academic data to support decision-making processes. The ability to access secondary data greatly facilitated the research efforts.

Data Collection and Analysis

Mixed methods research involves collecting, analyzing, and integrating both quantitative and qualitative data in a single study. To ensure the two types of data were appropriately collected, a three-phase data collection procedure was implemented. In the first phase, quantitative data were collected from Chinese undergraduates using a self-developed survey instrument. In the second phase, qualitative data were gathered using semistructured interviews. In the third phase, secondary data on student academic achievement were collected from an existing database. After all the data were collected, quantitative and qualitative data were analyzed separately and independently. Table 1 provides a summary of data collection and analysis techniques for each research question.

Phase 1—Survey

Participants. In this quantitative data collection phase, survey participants were chosen from Chinese undergraduates who were enrolled at the U for the first time in the

Table 1.

Summary of Data Collection and Analysis Techniques

Research Question	Data Collection	Data Analysis
What are the background characteristics of Chinese international undergraduate students at the U? Why and how do they choose to pursue undergraduate education at the U?	Survey data	Descriptive statistics
	Interview data	Inductive data analysis
What are Chinese international undergraduate students' first-year academic experiences at the U? What challenges do they face? What are their coping strategies?	Survey data	Descriptive statistics
	Interview data	Inductive data analysis
How do Chinese international undergraduate students perform academically during their first year of college at the U? Are they significantly different from their American counterparts and other international undergraduate students in terms of attempted credit hours, earned credit hours, cumulative grade point average (GPA), and first- to second-year persistence rates?	Secondary data	Descriptive statistics
		<i>t</i> -test
What factors predict Chinese international undergraduate students' cumulative first-year college GPA and first- to second-year persistence at the U?	Survey data	OLS regression
	Secondary data	Logistic regression

fall 2012. The majority of participants were selected through class visits. At the U, international undergraduates are required to fulfill certain English as Second Language (ESL) course requirements. ESL 1070 is one of these courses, and it was chosen for class visits because it registered more first-year Chinese undergraduates than other courses. ESL 1070 had six sections, and I visited all of them at times that were convenient to class instructors. The rest of the survey participants were recruited through email invitation. Together, 175 first-year Chinese students took part in the survey, and they accounted for 65.5% of Chinese undergraduates enrolled at the U for the first time in the fall 2012 ($n = 267$).

Instrument. The instrument for this phase of data collection was a survey questionnaire. Given the lack of empirical research on the academic experiences and achievement of Chinese undergraduates in the U.S., I developed a questionnaire based on a review of instruments that aim to measure college student experiences in different contexts. The reviewed instruments included *A Survey of International Students in New Zealand* that was developed by the New Zealand Ministry of Education in partnership with BRC Marketing and Social Research, *the National Survey of Student Engagement (NSSE)* developed by Indiana University Center for Postsecondary Research, and *University of California Undergraduate Experience Survey*. Although these survey instruments were not developed to address Chinese undergraduates' academic experiences and achievement on American campuses, they provided a framework for developing the survey questionnaire for this study. Additionally, I constantly consulted with the chair of my supervisory committee as I developed the survey instrument.

The survey questionnaire includes 55 questions, which can be divided into four sections: background information, decision to study abroad, academic experiences, and overall satisfaction and future plans (see Appendix A and B for the survey questionnaire). The background information section is composed of 16 questions asking participants about their geographic origins in China, whether they are the only child in their families, their high school class rank, the educational background of their parents, and others. The second section is composed of 14 questions, which investigate participants' rationale for undertaking undergraduate education in America, including the initiation of the idea to study abroad, the importance of academic success to their family, the value of a study abroad experience, and others. The third section includes 20 questions that ask Chinese undergraduates about their academic experiences at the U. These questions investigate their interactions with American peers and instructors/professors; their class attendance, class participation, and classroom experiences; and their use of academic support services and perception of the quality of these programs. The last section includes five questions that explore Chinese undergraduates' overall satisfaction with their academic experiences at the U and their future plans.

Because one purpose of this study is to investigate Chinese undergraduates' first-year academic achievement, one important requirement of the survey instrument is that it must allow me to track the participants through their first year of college. Therefore, unlike the common practice of conducting a survey anonymously, I collected the names of the survey participants. This piece of information allowed me to merge the survey data with the academic achievement data that were collected in the third phase of data collection. In addition, because all the survey participants are Chinese undergraduates,

the survey questionnaire was translated into Chinese after it was finalized. It was hoped that this practice would facilitate Chinese students' survey taking and allow me to collect more accurate data.

Validity. Validity in quantitative research refers to the extent to which an instrument measures what it intends to measure (Creswell & Plano Clark, 2011). Different forms of validity such as face validity, content validity, criterion validity, and construct validity are available to researchers (Dillman, Smyth, & Christian, 2008). In this study, face validity and content validity were tested by conducting a pilot test and an expert panel review. For the pilot test, five Chinese undergraduates who were enrolled at the U for the first time in the fall 2011 were selected to complete the survey, provide comments and feedback, and report any unclear or confusing statements and questions. Revisions to the survey were made accordingly. For the expert panel review, three members of my supervisory committee and an administrator from the U's International Center were invited to examine the content and design of the survey instrument. These highly qualified individuals have knowledge about and experience with research design and/or working with Chinese undergraduates. Based on the feedback from these experts, several survey items were either removed from or added to the survey questionnaire to better address the research questions, and several survey items were revised to clarify the wording.

Data collection procedures. I was introduced to the supervisor of the U's ESL program through a professional network, and then I contacted her by sending an email stating the purpose of the study, the time needed to complete the survey, and policies concerning confidentiality and voluntary participation. I later met with the program

supervisor in her office. During this meeting, the program supervisor suggested that I visit each section of ESL 1070, which registered the majority of first-year Chinese undergraduates. After the meeting, the ESL program supervisor sent an email to all ESL 1070 instructors asking them to accommodate my research needs and allow me to conduct the survey during the last 20 minutes of their classes. I then contacted each instructor and secured a time that was convenient to the instructor. During each class visit, the instructor first briefly introduced me and the study to his or her class, and then dismissed the students who are not from the People's Republic of China. I then handed out surveys with an informed consent cover letter to the students left in the class, and provided opportunities for students to ask questions about the study and the survey before they decided whether to complete the survey.

After visiting all the six sections of ESL 1070, I identified Chinese undergraduates who were enrolled at the U for the first time in the fall 2012 but had not had the opportunity to take part in the survey. An invitation email was sent out to these students, who were offered two opportunities to participate in the survey at a classroom located inside the U's main library. In the end, all the surveys were conducted within a month in the late fall semester of the 2012-13 academic year.

Data analysis. The data collected through the surveys were entered into a Microsoft Excel spreadsheet, and then imported to SAS 9.3 statistical software. Descriptive statistics such as frequency and percentage were calculated to answer the first and second sets of research questions along with qualitative data collected through interviews with Chinese undergraduates in the second phase of data collection. Specifically, Chinese undergraduates' background characteristics (e.g., geographical

origins, previous education experiences, reasons for studying abroad, and type of admission) and academic experiences at the U (e.g., class participation, interactions with peers and instructors/professors, challenges and coping strategies, and overall academic satisfaction) were examined by using both the survey data and the interview data.

Phase 2—Interview

Participants. In this study, 26 Chinese undergraduates enrolled at the U for the first time in the fall 2012 were interviewed to gain in-depth knowledge of their first-year academic experiences. Creswell and Plano Clark (2011) stated that “When the purpose is to corroborate, directly compare, or relate two sets of findings about a topic, we recommend that the individuals who participate in the qualitative sample be the same individuals who participate in the quantitative sample” (p. 183). For this reason, Chinese undergraduates who took part in the survey were asked to provide their contact information at the end of the survey if they were interested in a face-to-face interview with me at a future time. Of the 175 students who completed the survey, the majority (n = 104) indicated they were interested in such an interview.

Maximum variation sampling was used to select students to participate in interviews. Maximum variation sampling was selected because it entails selecting participants representing a range of variation (Glesne, 1999), including geographical origins, gender, highest degree completed in China, the initiation of the idea to study abroad (i.e., by self, parents, or relative), type of admission (i.e., direct admission, Global Pathways, or USPP), first-term college GPA, and overall academic satisfaction. Email invitations were sent to the selected students, and those who accepted invitations were

interviewed. No specific number of participants was determined in advance for interviews. Instead, I stopped interviewing students when redundancy was evident (Russell & Gregory, 2003; Tuckett, 2004). Table 2 presents a summary of the Chinese undergraduates who were interviewed as part of the study.

Data collection procedures. In this phase of data collection, qualitative data on Chinese undergraduates' rationale for undertaking undergraduate studies in the U.S. and their academic experiences at the U were collected through semistructured interviews. In collaboration with my supervisory committee chair, I developed an interview protocol (see Appendix C and D for the interview protocol). The interview protocol outlines the procedure and methods for conducting the interviews and consists of 18 interview questions that can be divided into three parts. The first part includes four questions asking Chinese undergraduates about their rationale for pursuing undergraduate studies in the U.S., their study abroad decision-making processes, and their experiences of applying to American colleges and universities. The second part includes 10 questions investigating Chinese undergraduates' academic experiences at the U. These questions include the following: What is your typical school day like at the U? How often do you interact with your instructors/professors? What do you like most about your academic experiences at the U? Are you satisfied with your first-term college GPA? Have you ever thought about leaving the U and returning to China? What helps you stay at the U? The third part includes four questions asking Chinese undergraduates about their perspectives on what the university can realistically do to help enhance their academic experiences and improve their academic achievement, their future plans, their overall satisfaction with study abroad experience in the U.S., and their advice to prospective Chinese students who

Table 2.

Summary of Interview Participants

Name	Place of Birth	Gender	Highest Previous Degree	Initiating Study Abroad	Mode of Admission	First-Term College GPA	Academic Satisfaction
Guoqiang	Anhui	M	Some College	Self	GP ¹	3.9	Satisfied
Lan	Beijing	F	High School	Parents	GP	1.9	Satisfied
Cong	Beijing	F	High School	Parents	GP	3.9	Satisfied
Xiaozhou	Beijing	M	High School	Self	GP	2.9	Satisfied
Lei	Beijing	M	High School	Self	Direct ²	2.0	Satisfied
Jun	Beijing	M	High School	Self	GP	1.9	Satisfied
Tingting	Chongqing	F	High School	Parents	GP	3.9	Very Satisfied
Zhong	Fujian	M	High School	Parents	USPP ³	3.7	Not Satisfied
Hao	Fujian	M	High School	Parents	GP	0.0	Neutral
Qi	Guangdong	F	High School	Self	GP	3.6	Very Satisfied
Yan	Guangdong	F	Associate	Self	GP	4.0	Very Satisfied
Rui	Guangdong	M	High School	Self	GP	3.5	Satisfied
Wei	Guangdong	M	High School	Self	GP	1.8	Satisfied
Shuhui	Hebei	F	High School	Relative	Direct	3.9	Satisfied
Han	Hebei	M	High School	Parents	GP	1.5	Neutral
Qijia	Heilongjiang	M	Some College	Friends	Direct	4.0	Very Satisfied
Ying	Henan	F	High School	Parents	Direct	3.9	Neutral
Jing	Jiangsu	F	High School	Parents	Direct	2.1	Not Satisfied
Xiaohua	Jiangsu	M	High School	Parents	Direct	3.2	Satisfied
Tao	Jiangsu	M	High School	Relative	GP	3.9	Not Satisfied
Yuhai	Qinghai	M	Some College	Self	GP	1.7	Not Satisfied
Ming	Shanghai	M	High School	Self	GP	3.5	Satisfied
Juan	Tianjian	F	High School	Self	GP	2.9	Satisfied
Hong	Xinjiang	F	Some College	Self	GP	3.4	Satisfied
Peng	Zhejiang	M	Some College	Self	Direct	3.9	Very Satisfied
Cheng	Zhejiang	M	High School	Self	GP	2.3	Satisfied

Note: 1. GP stands for Global Pathways program.
 2. Direct stands for direction admission.
 3. USPP stands for U.S.-Sino Pathway Program.

want to pursue undergraduate studies in the U.S.

All the interviews took place in study rooms inside the U's main library during the spring semester of 2013. Before the interviews began, each participant was briefed on the informed consent document, which informs them of the purpose of the study, procedures, potential benefits, risks and discomforts, and their rights as participants. Each participant was provided the opportunity to ask questions about the study and the interview. During the interviews, I used probes and follow-up questions to clarify and solicit further information. I attended to building rapport with the participants and encouraging them to elaborate on how they navigated their first year of college and made sense of their academic experiences in the U.S. To facilitate the participants' thinking, the interviews were conducted in Chinese. Each interview lasted about 1 hour and was audio recorded and then transcribed into a Microsoft Office Word document.

Data analysis. The qualitative data from this study were analyzed using inductive analysis. According to Thomas (2006), "*inductive analysis* refers to approaches that primarily use detailed readings of raw data to derive concepts, themes, or a model through interpretations made from the raw data by an evaluator or researcher" (p. 238). The core of inductive analysis is its coding process, which includes preparation of raw data files, close reading of text, creation of categories, overlapping coding and uncoded text, and continuing revision and refinement of category system. "The intended outcome of the process is to create a small number of summary categories (e.g., between three and eight categories) that in the evaluator's view capture the key aspects of the themes identified in the raw data and are assessed to be the most important themes given the evaluation objectives" (Thomas, 2006, p. 242).

Specifically, I aimed to use qualitative data along with quantitative data collected through survey questionnaires to accurately and genuinely portray Chinese undergraduates' rationale for pursuing undergraduate studies in the U.S. and particularly their first-year academic experiences at the U. To meet these goals, I transcribed all the 26 interviews and saved the data into a Microsoft Word document. I then read and reread the whole document in detail until I was very familiar with each student's transcript. As for Chinese undergraduates' first-year academic experiences, I developed a list of four broad themes/nodes that emerged from the data and the literature. These categories are academic environments, academic experiences, academic challenges, and coping strategies. Then, I uploaded the Microsoft Word document to HyperRESEARCH, a qualitative data analysis software program, and developed a list of subnodes within each of the four larger nodes through multiple reading of the raw data. Supporting quotations were then identified to convey the broad themes. The translation of Chinese to English was conducted after the above procedures were completed. Only the quotations used in the study were translated into English. To ensure data accuracy during the translation process, a native Chinese speaker who is also proficient in the English language helped review the English translation.

Trustworthiness. In qualitative research, the trustworthiness of data and findings is a more appropriate measure than reliability and validity (Crowson, 1987). In this study, several strategies were used to enhance the trustworthiness of the qualitative data and findings. First, a pilot test of the interview instrument was conducted with two Chinese undergraduates enrolled at the U for the first time in the fall 2011, and their comments and feedback were used to revise the interview protocol. Second, member checking was

used to enhance the accuracy of the interview data and the credibility of findings (Lincoln & Guba, 1985; Miles & Huberman, 1994). After the interviews were transcribed, the transcripts were forwarded to the interviewees for review. All the interviewees agreed that the transcripts reflected a verbatim depiction of their speeches. In addition, I provided copies of the preliminary findings of this study to some participants to solicit their comments on whether the findings, interpretations, and conclusions relate to their personal experiences. A few comments in favor of my interpretation were received. Third, rich and thick descriptions of the findings were provided to allow readers to make their own decisions regarding the transferability of the findings to other settings (Lincoln & Guba, 1985; Merriam, 1988) and whether the findings make sense to them. Finally, later in this chapter, I disclose my past experiences and personal biases that may influence my interpretation of the data (Merriam, 1988).

Phase 3—Secondary Data

Data collection procedures. In this final phase of data collection, I tracked Chinese undergraduates who completed the initial survey through their first year of college to gather their academic achievement data, including attempted credit hours, earned credit hours, cumulative GPA, and persistence to the second year of college. The tracking was accomplished through an existing database, which is housed at my place of employment and to which I have ready access. After these academic data were gathered, they were merged with the survey data by using student name as the primary key. To better understand Chinese undergraduates, their academic achievement was compared with that of two comparison groups: American undergraduates and other international

undergraduates. In order to facilitate these comparisons, the same set of academic achievement data were also collected for American and other international undergraduates through the same database.

Data analysis. The merged data set that included the survey data and the academic achievement data was imported to SAS 9.3 statistical software. Descriptive statistics and independent-samples *t* tests were used to address the third set of research questions: How do Chinese international undergraduate students perform academically during their first year of college at the U? Are they significantly different from their American counterparts and other international undergraduate students in terms of attempted credit hours, earned credit hours, cumulative grade point average (GPA), and first- to second-year persistence rates? Independent-samples *t* tests are appropriate because the investigations involved the comparison of two (e.g., Chinese freshmen vs. Chinese transfers) treatment conditions.

Additionally, ordinary least squares (OLS) regression and logistic regression analyses were performed to address the last research question: What factors predict Chinese undergraduates' first-year cumulative college GPA and first- to second-year persistence at the U? College GPA (Henry, Rubenstein, & Bugler, 2004; Stater, 2009) and persistence (Dynarski, 2000; Kuh et al., 2008) have been commonly studied in higher education literature. Another commonly studied measure of college student success—graduation rate—was not included in the analyses because study participants were still at the early stage of their undergraduate education. Based on the model presented at the end of literature review in Chapter 2 and data availability, I included the following independent variables in the analyses: (1) gender (Astin, 1975; Peltier, Laden, &

Matranga, 1999; Tinto, 1987), (2) registration status (i.e., first-time freshman or new transfer student), (3) high school class rank (Kuncel, Hezlett, & Ones, 2001), (4) English language proficiency (Andrade, 2006; Stoyhoff, 1997), (5) the initiation of the idea to study abroad (Bodycott & Lai, 2012), (6) peer interaction (Astin, 1993; Tinto, 1993; Westwood & Barker, 1990), and (7) student-faculty interaction (Astin, 1977, 1993; Cole, 2007, 2008; Dika, 2012; Erkut & Mokros, 1984; Pascarella, Terenzini, & Hibel, 1978). As an indicator of study efforts (Astin, 1993; Dika, 2012), absence from class was also included in the regression analyses. I recognize that I did not capture all relevant predictors, particularly psychological and organizational variables. Further research would be needed to understand the relationships between these variables and the academic achievement of Chinese undergraduates. Table 3 presents a description of the variables used in the analyses, including their definitions and coding.

The two types of regression analyses were chosen on the basis of the nature of the dependent variables. Because college GPA is a continuous variable, OLS regression analysis is appropriate for assessing its relationships with the independent variables. Alternatively, logistic regression analysis was chosen for examining the relationship between persistence and the independent variables because logistic regression analysis allows for easy model building when the dependent variable is dichotomous (e.g., yes/no, 1/0), as it is in this case (persisted or not persisted). In order to ensure the robustness of the models, necessary steps were taken to avoid violation of statistical assumptions. These steps included checking for unusual and influential data, checking normality of residuals, checking homoscedasticity, checking for multicollinearity, and checking linearity.

Table 3.

Variables Used in the Study, Definitions, and Coding

Variable	Definition	Code
<i>Dependent Variables</i>		
Cumulative 1 st -year GPA	Grade point average for the first year of college	0-4
1 st - to 2 nd -year persistence	The status of a student returning to the U to continue her study the following fall	No, yes
<i>Independent Variables</i>		
Gender	Gender of a student	Female, male
Registration status	Registration status of a student	First-time freshman New transfer student
High school class rank	A student's academic record as compared with other students in his or her class	<= 50% 51-80% 81-100%
English language proficiency (IELTS)	A student's score for the International English Language Testing System. If a student took TOEFL, his score was converted to IELTS score.	<= 4.0 > 4.0 and < 5.5 >= 5.5
Initiation of the idea to study abroad	The person who initiated the idea to study abroad	Self, others
Peer interaction	The frequency of interactions with American students	<= one time per week >= two times per week
Student-faculty interaction	The frequency of interactions with instructors/professors	<= one time per week >= two times per week
Absence from class	The number of times a student misses class	0 times 1-3 times >= 4 times

Ethical Considerations

Throughout the study, I endeavored to establish a trustful relationship with participants to obtain accurate data and rich information without negatively impacting them. First, I demonstrated respect for study participants during the whole process of the study. Both the survey and the interviews were conducted in Chinese. All the interviews took place at times and locations that were convenient to the participants. During the interviews, I strived to establish a pleasant form of rapport with participants by avoiding using judgmental or provocative statements. Second, I made additional efforts to provide useful information and advice to participants. Throughout the study, participants asked me a variety of questions concerning employment, visa, immigration, and other legal issues. I spent time listening to their concerns, offered advice based on my own experience and understanding, and consulted with student service departments at the U when necessary to help address their concerns.

According to Creswell (2008), “obtaining permission before starting to collect data is not only a part of the informed consent process but is also an ethical practice” (p. 179). The University of Utah Institutional Review Board (IRB) reviewed the research proposal, consent document, research instruments, and other documentation and gave approval on October 30, 2012. For the first phase of quantitative data collection, participants received the survey questionnaire with a consent cover letter describing the study purpose and procedures, time commitment, confidentiality, the voluntary nature of participation, and risks and benefits. For the second phase of qualitative data collection, before the interview began, each participant received a copy of the approved informed

consent document and was assured that their participation or lack thereof would not affect their relationships with me or the University.

The data collected through the survey and the interviews remained completely confidential and were kept on a password-protected computer in a locked office. Research notes and completed questionnaires also remained confidential and were locked in a filing cabinet in a locked office. No one else besides me could access these documents and data. Once the study was completed, all the questionnaires and audio recordings were destroyed permanently. In addition, I assigned pseudonyms to interview participants, and used these pseudonyms in the write-up of the study.

The Role of Researcher

In the qualitative portion of the study, I personally conducted all the interviews with Chinese undergraduates. Considering this is “a sustained and intensive experience with participants” (Creswell, 2003, p. 184), there is a need for me to explicitly identify my “biases, values, and personal interests” (Creswell, 2003, p. 184) about the research topic and process.

I am an institutional researcher with 10 years of experience working at several American universities, including the U. I am from the People’s Republic of China, and came to the U.S. to pursue graduate study in 1999. I believe that the practice of sending Chinese students to study in the U.S. has played and will continue to play an important role in accelerating the country’s modernization. I also believe that the current wave of Chinese students pursuing undergraduate studies in the U.S. presents both opportunities and challenges to U.S.-China educational exchanges. I am interested in the background

characteristics of Chinese undergraduates in the U.S. and their academic experiences on American campuses. I would also like to know how Chinese undergraduates perform academically when compared with their American counterparts and other international undergraduates and what factors predict Chinese undergraduates' academic achievement at American colleges and universities. The study has important implications for me as a researcher, Chinese undergraduates and their families, and higher education leaders and policy makers in both America and China.

There might be a chance that my previous experience as an international student in the U.S. and my beliefs about the Chinese study abroad movement influenced my interpretation of data collected in the study and therefore added subjectivity to the study. For example, I have been frequently told that some American colleges and universities treat Chinese undergraduates as “cash cows” and that some American instructors/professors treat Chinese undergraduates harshly. On the other hand, I have heard that many Chinese undergraduates belong to the so-called “the second generation of the rich” (also known as “Fuerdai”) or “the second generation of government officials” (also known as “Guanerdai”), who are the sons and daughters of the wealthy Chinese or China's political elite. Many of these students are not believed to have appropriate academic preparation and achievement motivation to succeed in American higher education.

However, my 10 years of experience as an institutional researcher has not only cemented my passion for the study of college student success, but has also trained me to see everything from a researcher's point of view. To me, the purpose of research is to uncover objective truths; and to achieve that purpose, a researcher must endeavor to be an

independent observer, rigorously gathering data and objectively reporting on them. Throughout the research process, I worked hard to be aware of my potential biases and to minimize them. As discussed earlier, the strategies I used include voicing my prejudices and assumptions so that they can be considered openly and challenged and using maximum variation sampling and standardized protocols for data collection to minimize selection and interviewer biases.

Summary

This chapter first presented research questions for the study, followed by the research design and rationale. It then described key features of the setting in which the study was conducted. After that, the chapter discussed participants, instruments, strategies that enhanced reliability and validity, data collection, and data analysis along two dimensions of quantitative and qualitative methodology. At the end of the chapter, ethical considerations and the role of researcher were expounded. This chapter lays the groundwork for the analyses and interpretation discussed in subsequent chapters.

CHAPTER 4

RESULTS

This chapter provides the results of data analyses and findings of the study. This information is organized into four sections, each addressing one set of research questions that guided this study. The first section provides a comprehensive analysis of study participants, including their background characteristics, study abroad decision-making processes, and application to U.S. universities. The second section presents participants' transitional experiences at the U, including their perceptions of academic environments, academic experiences, and academic challenges. This section also addresses their coping strategies. The third section reports the results of statistical analyses of Chinese undergraduates' first-year academic achievement and compares it with that of their American counterparts and other international undergraduates. The final section reports the results of two regression models for predicting participants' cumulative first-year college GPA and first- to second-year persistence. The chapter ends with a summary.

Overview of Study Participants

In this section, descriptive analyses of both quantitative and qualitative data provide context for the study and also answer the first set of research questions: "What

are the background characteristics of Chinese international undergraduate students at the U? Why and how do they choose to pursue undergraduate education at the U?” Findings in this section are further organized into three subsections: (1) student background characteristics, (2) study abroad decision-making processes, and (3) applying to U.S. universities.

Student Background Characteristics

As described previously, 175 Chinese undergraduates took part in the questionnaire survey, responding to a broad set of questions designed to examine their background characteristics and first-year academic experiences. These students accounted for approximately two thirds of Chinese undergraduates enrolled at the U for the first time in the fall semester of 2012 ($n = 267$). Of the 175 survey participants, 78% were first-time freshmen ($n = 137$), and 22% were new transfer students ($n = 38$). Table 4 summarizes relevant descriptive statistics on the demographics, previous educational experience, and family background of the survey participants.

Demographics. The variables of gender, age, geographic origin, and only-child status were examined to understand the demographic makeup of survey participants. Male participants comprised 65% of student sample ($n = 114$), while female participants made up 35% of student sample ($n = 61$). Participants ranged in age from 18 to 25 years old, with an average of 19.8 years old. Compared with their American counterparts and other international undergraduates, the age difference between Chinese first-time freshmen and Chinese new transfer students was small (see Table 5). Specifically, the average age difference between the two groups of Chinese undergraduates was 1.5 years,

Table 4.

Background Characteristics of Survey Participants (N = 175)

Characteristics	<i>n</i>	%
Gender		
Male	114	65.1
Female	61	34.9
Age at Time of Survey (years)		
18 years and below	22	12.6
19 years old	57	32.6
20 years old	48	27.4
21 years and over	48	27.4
Geographical Origin		
Eastern provinces	118	67.4
Middle provinces	37	21.1
Western provinces	18	10.3
Missing value	2	1.1
Only-Child Status		
From an only-child family	128	73.1
Not from an only-child family	47	26.9
Prior Education Level		
Below high school diploma	1	0.6
High school diploma	125	71.4
Some college	40	22.9
Associate's degree	4	2.3
Baccalaureate degree	1	0.6
Other academic credentials	4	2.3
High School Country		
China	168	96
U.S.	5	2.9
Other countries	2	1.1
High School Class Rank		
81-100%	44	25.1
51-80%	100	57.1
1-50%	26	14.9
Missing value	5	2.9
Participation in the Gaokao		
Yes	107	61.1
No	65	37.1
Missing value	3	1.7
Performance on the Gaokao		
Could enter a 4-year university	83	47.4
Could enter a 2-year college	14	8
Could not enter a college or university	10	5.7

Table 4. Continued

Background Characteristics of Participants

Characteristics	<i>n</i>	%
Do not apply	63	36.0
Missing value	5	2.9
Father's Education		
Less than a high school diploma	15	8.6
High school diploma	22	12.6
Associate's degree	21	12
Baccalaureate degree	63	36
Graduate degree	19	10.9
Missing value	35	20
Mother's Education		
Less than a high school diploma	19	10.9
High school diploma	35	20
Associate's degree	26	14.9
Baccalaureate degree	46	26.3
Graduate degree	14	8
Missing value	35	20
Financial Resource		
Parents	170	97.1
Relatives	1	0.6
Missing value	4	2.3
Financial Burdon		
Not burdensome	28	16
Slightly burdensome	57	32.6
Burdensome	73	41.7
Very burdensome	7	4
Extremely burdensome	4	2.3
Missing value	6	3.4

Note. Totals of percentages are not 100 for every characteristic because of rounding.

Table 5.

Age Differences among Different Student Groups

Student Group	Age Group				Average Age
	<= 18 Years (%)	19 Years (%)	20 Years (%)	>= 21 Years (%)	
<i>All Students (freshmen + transfers)</i>					
Chinese undergraduates (<i>n</i> = 175)					19.8
American undergraduates (<i>n</i> = 4,656)					21.1
Other International students (<i>n</i> = 144)					20.9
<i>First-Time Freshmen</i>					
Chinese undergraduates (<i>n</i> = 137)	16.1	38.7	28.5	16.7	19.5
American undergraduates (<i>n</i> = 2,760)	49.1	46.9	1.6	2.4	18.6
Other International students (<i>n</i> = 94)	20.2	28.7	34.0	17.1	19.5
<i>New Transfers</i>					
Chinese undergraduates (<i>n</i> = 38)	0.0	10.5	23.7	65.8	21.0
American undergraduates (<i>n</i> = 1,896)	0.4	4.3	12.4	82.9	23.4
Other International students (<i>n</i> = 50)	4.0	2.0	10.0	84.0	24.7

while the average age difference between the two groups of American and other international first-year students was 4.8 years and 5.2 years, respectively. In terms of geographical origins, 68.2% of participants were from China's eastern coast provinces (*n* = 118), 21.4% were from middle provinces (*n* = 37), and 10.4% were from western provinces (*n* = 18). In addition, more than a third of participants were from Guangdong (*n* = 21), Zhejiang (*n* = 19), Jiangsu (*n* = 12), and Fujian (*n* = 10), the area with the longest and most direct exposure to the Western influence and traditionally the main source of students for the Chinese study abroad movement. Finally, contrary to the popular belief that all Chinese undergraduates are from an only-child family, 26.9% of participants reported that they had more than one sibling (*n* = 47).

Previous educational experience. The variables of prior education level, high school country, high school class rank, participation in the Gaokao, and performance on the Gaokao were analyzed to gain more insight into the previous educational experience of study participants, which may impact their academic experiences and achievement at the U. As far as prior education level is concerned, more than two thirds of participants earned a high school diploma ($n = 125$), 22.9% had some higher education experience in China ($n = 40$), and less than 3% earned an associate's ($n = 4$) or a baccalaureate degree ($n = 1$) prior to coming to the U.S. In terms of high school country, 96.0% of participants graduated from high schools in China ($n = 168$), 2.9% graduated from high schools in the U.S. ($n = 5$), and 1.1% graduated from high schools in other foreign countries ($n = 2$). Although only a small percentage of participants in this study graduated from U.S. high schools, the number of Chinese undergraduates on American campuses with a U.S. high school diploma may grow dramatically in the future considering more and more Chinese students are studying in U.S. middle and high schools (Dillon, 2013). With regard to high school class rank, approximately 25.1% of participants were in the top 20% of class rank ($n = 44$), 57.1% were in the 51-80% of class rank ($n = 100$), and 14.9% were in the bottom 50% of class rank ($n = 26$). The Gaokao is China's national university entrance examination, and it is held once every year. Students' performance on the Gaokao is a prerequisite for entrance into all Chinese colleges and universities at the undergraduate level. Among the survey participants, 61.1% took the Gaokao ($n = 107$), while 37.1% did not ($n = 65$). Additionally, of the 107 students who took the Gaokao, 77.6% indicated that their performance on the Gaokao could allow them to enter a 4-year college or university in China ($n = 83$), 13.1% indicated that they could only enter a 2-year college ($n = 14$),

and less than 10% reported that they could not enter any higher education institution in China.

Family background. The variables of father's education, mother's education, financial resources, and financial burden were studied to understand participants' family background. The results of parental education are depicted in Figure 3. Approximately 60% of participants reported that their father had an associate's, baccalaureate, or graduate degree ($n = 103$), compared with about 50% of participants reporting that their mother had such a higher education credential ($n = 86$). On the other hand, 21.2% of participants indicated that their father had a high school diploma or below ($n = 37$), compared with 30.9% of participants indicating that their mother had such an education credential ($n = 54$). Unlike many of their PRC predecessors who relied on financial support from the Chinese government or American host institutions to complete their study in the U.S. (Orleans, 1988; Yan & Berliner, 2011; Zhang, 2005), virtually all Chinese undergraduates in this study reported acquiring financial resources from their

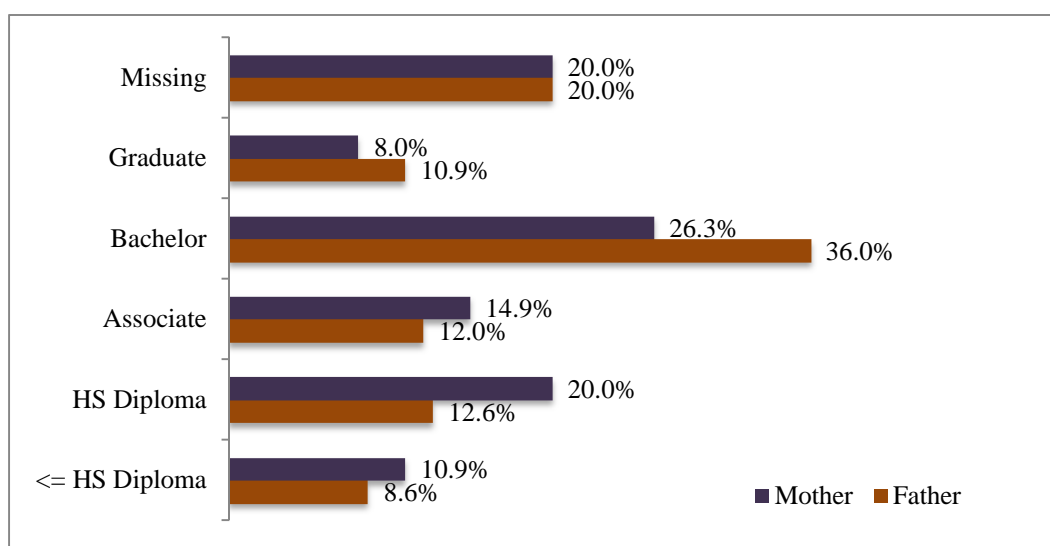


Figure 3. Parental Education Level of Study Participants

parents ($n = 170$; 97.1%) or relatives ($n = 1$; 0.5%). Additionally, in response to the survey question “Is the cost of studying abroad (e.g., tuition, fees, room and board, and etc.) a financial burden to your family?” 48% of participants chose “Burdensome,” “Very burdensome,” or “Extremely burdensome” ($n = 84$), while approximately the same percentage of participants answered “Not burdensome” or “Slightly burdensome” ($n = 85$). Figure 4 illustrates the survey results regarding financial burden of studying in the U.S.

Study Abroad Decision-Making Processes

The decision-making processes that ultimately result in a student studying in the U.S. are not simple, and they have the potential to impact the student’s social and academic well-being (Bodycott & Lai, 2012). In this subsection, I explore participants’ rationale for studying in the U.S., the initiation of the idea to study abroad, and the importance of studying abroad to students.

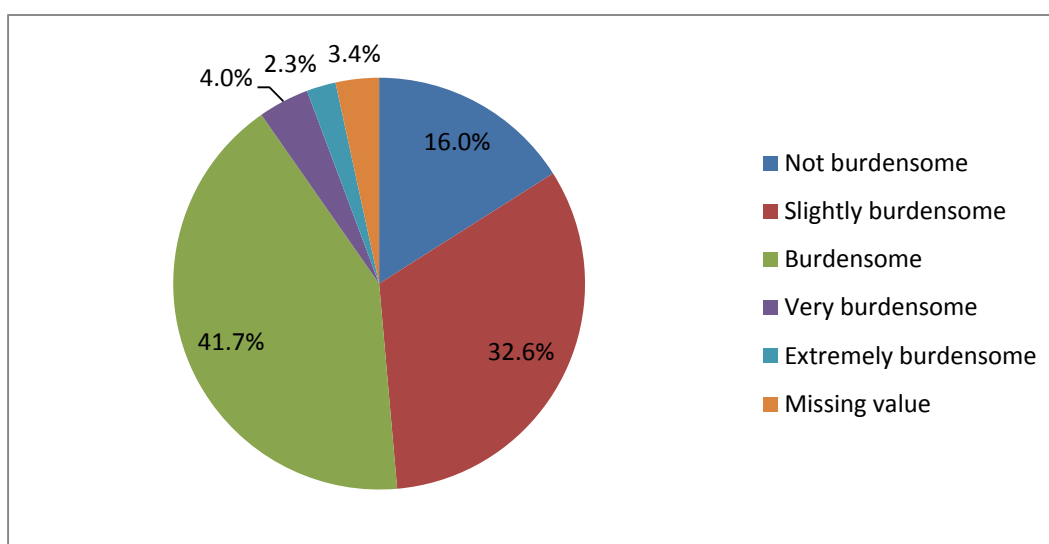


Figure 4. Financial Burden of Studying in the U.S.

Rationale for studying in the U.S. In the survey, I asked participants to choose from a list of predefined reasons for studying in the U.S., ranging from being unable to attend a desired university in China to hoping to obtain a better education in the U.S. Participants' responses are depicted in Figure 5. Specifically, the most common reason for studying abroad ($n = 111$; 63.4%) was to obtain a better higher education in the U.S. Related to that, about a half of participants indicated that they did not like the Chinese higher education system ($n = 87$). The third most common reason for studying in the U.S was to improve English skills ($n = 81$; 46.3%), followed by students' desire to enrich their personal experience ($n = 74$; 42.3%). Additionally, 29.1%, 28.0%, and 10.3% of participants selected "My parents want me to study in the U.S.," "A U.S. degree will help me land a good job," and "Many friends of mine are studying in the U.S.," respectively. Moreover, 22.9% of study participants reported that they could not attend a desired university in China ($n = 40$), while 8.0% indicated that they tried to avoid taking the grueling Gaokao in China ($n = 14$).

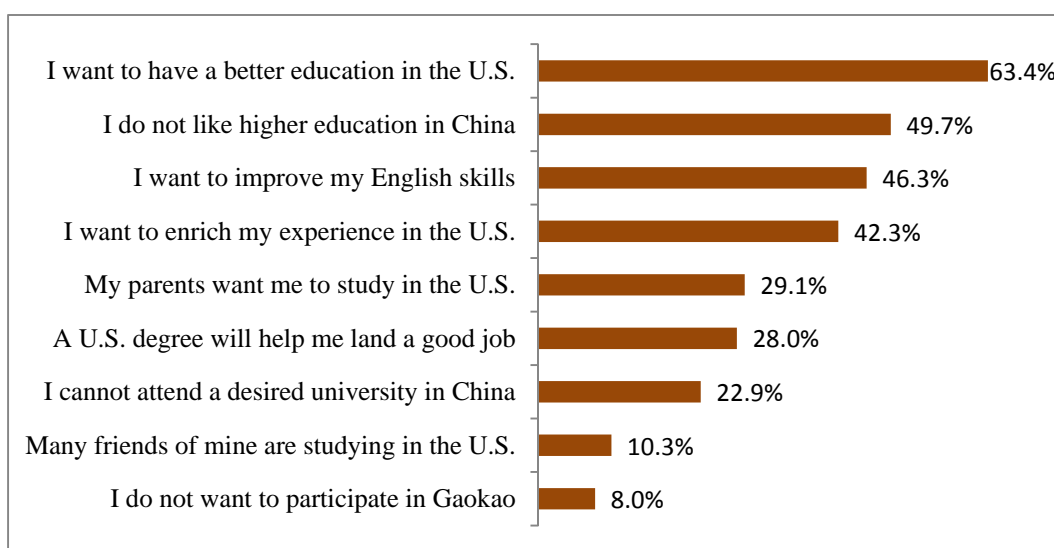


Figure 5. Reasons for Studying in the U.S.

These survey results were consistent with the findings from the interviews. Cheng, a pre-mechanical engineering student, claimed that unlike most Chinese students, he did not plan to earn a degree from an American university: “That is not why I came to the U.S. Instead, I just want to enrich my personal experience in a different culture.” Ming, a pre-chemistry student, noted that he did not like studying in Chinese schools and wanted to try a new environment. He also noted that “pursuing undergraduate education in the Western countries is very popular among Chinese young generation.” According to Ming, two of his cousins were also studying in the U.S., one in Illinois and the other in Pennsylvania. Zhong, another pre-mechanical engineering student, explained why he chose to come to the U.S. for a higher education:

My father wanted me to come to the U.S. to learn English. He is a businessman, and his company is actively involved in international business. But he does not know any English, and his business suffered some losses because of that. So, he wanted me to learn English. However, my interest is in mechanical engineering, and I want to choose it as my future career. But my father did not care about that, and he told me I would be fine as long as I could improve my English skills.

While all the predefined reasons listed in the survey were mentioned by the interview participants, two main themes emerged from the discussion related to participants’ rationale for studying in the U.S. The first theme was that studying in the U.S. was a reaction to students’ unwillingness to take the Gaokao or to their failure to secure a position at a desirable Chinese college or university. This set of reasons was often given by Chinese first-time freshmen. Jun, a pre-computer science major, revealed that he decided to pursue his undergraduate education in the U.S. during his sophomore year in high school: “So, I did not take the Gaokao in China. Both my father and I thought it would be a waste of my time if I could not do well in the examination.” Xiaohua, a pre-biology student, observed that “many Chinese students chose to study

abroad because they did not do well on the Gaokao and therefore could not attend any college or university in China. These students do not possess good study skills and are not academically prepared for studying in the U.S.” Han, a pre-business student, made the following comments:

I took the Gaokao, and my overall mark was over 500. However, the minimum mark requirement in my province was really high. So, I could only attend a third-tier university in China. As a result, my father decided to send me to the United States for a higher education. In his mind, it is meaningless to study at a Chinese college or university unless it is a really good one. First, I may not learn anything useful at a third-tier university. Second, I may not be able to find a job after graduation.

The second theme was that studying abroad was a proactive approach to students’ desire to gain a quality education in the U.S. or a result of their uneasiness with the Chinese higher education system. This set of reasons was often given by new transfer students or first-time freshmen who were ambitious and goal oriented. Hong, a pre-business student with 2 years of college experience in China, noted that her goal was to get a MBA degree from an American university: “I have two reasons to do so. First, the U.S. is a global superpower. Second, a MBA degree from an American university has more prestige than a degree from other countries. It may be hard to earn an American MBA degree, but it will pay back once you get it and go back to China.” Rui, a pre-electrical engineering student, explained that he likes electrical engineering (EE) and his father is a professor of EE at a Chinese university: “My father told me that EE was introduced to China not too long ago and therefore it was still pretty weak. He figured that I might not be able to get a good education in China and therefore decided to send me to study in the U.S.” Guoqiang, another pre-electrical engineering student with 2 years of college experience in China, said:

I did well on the Gaokao and was admitted into a top-tier university in northwest China. My parents were very proud of me. However, I did not feel I learned a lot there. All my classes were large lecture classes with 200 to 300 students and were usually taught by instructors. Most students were only concerned about final exams. Unfortunately, I was not one of them. Instead, I was really thirsty for knowledge and wanted to lay a solid foundation for my future career. When I was at my sophomore year, I felt I could not live like that anymore. Then, I attended a talk on study abroad issues and decided to pursue that option.

In short, participants had a range of different reasons for studying in the U.S.

While many students were attracted by the high quality of American colleges and universities, it was clear that some students were looking abroad for their higher education because they could not gain a place in a Chinese college or university.

Initiating the idea of studying in the U.S. In the survey, participants reported on their study abroad initiation process (see Figure 6). To put it simply, the idea of studying in the U.S. was more often initiated by students' parents ($n = 92$; 53.8%) than by students themselves ($n = 65$; 38.0%).

Hao, a pre-architecture student, described his study abroad initiation process, which vividly confirmed the survey finding:

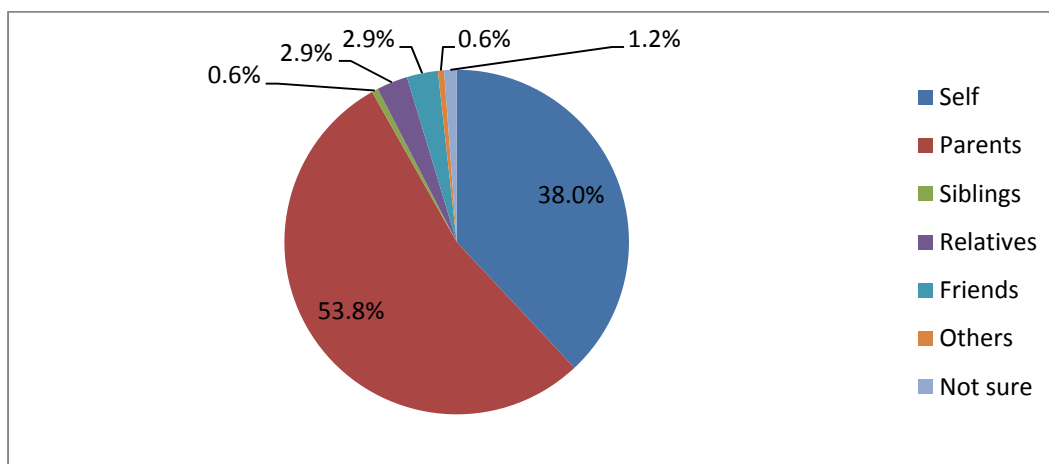


Figure 6. The Initiation of the Idea to Study Abroad

When I was a sophomore in high school, a student in my school was sent by his parents to study in a high school in Boston. My mother happened to know that student's mother. So, the idea of sending me to study in the U.S. occurred to my mother. After a while, she asked me if I wanted to study in America. My first response was "No, I do not want to study in the U.S." In my mind, only those students whose academic performance was poor and whose family was wealthy went to study abroad. So, I initially rejected her idea. But that idea did not go away from my mind. Over the next several months, I was debating with myself about whether or not I should pursue my undergraduate study in the U.S. Finally, I decided it might not be a bad idea to do so. After all, like most high school students, I wanted to see the world.

For Jing, a pre-business student, the idea of studying abroad was also forced on her by her parents: "Immediately after the Gaokao, my mother signed me up for a Test of English as a Foreign Language (TOEFL) training class because it was obvious that I could not go to college in China, at least not a good one." Jing felt helpless about the situation she was in and had mixed feelings about her parents' decision: "It was fine with me if they wanted me to study abroad. It was also fine with me if they wanted me to study in China. I did have my own ideas, but those ideas would not count. I had learned to be realistic."

For some participants, study abroad was a family decision. Ming mentioned that he faced opposition from his grandparents when he originally raised the idea of studying in the U.S. According to Ming, "I am their only grandchild. They felt they were getting old and did not want me to be thousands of miles away from them." However, they changed their minds after Ming promised that he would come back to see them every summer. Shuhui, an undeclared student, explained her study abroad initiation process:

My parents are not wealthy. I could afford to study in the U.S. mainly because I live with my aunt, who happens to work at the U. Additionally, my grandma contributed a big portion of her retirement savings to pay my tuition and fees...I do not recall that I raised the idea of studying abroad. It must be my parents who did it. It must be my parents and my aunt working together to reach the decision. Then, my aunt helped me with my

application process. Only after going through all these processes could I come to study in the U.S.

In contrast, many participants did have a say in the study abroad decision-making processes. Qijia, a student who double majors in finance and mathematics, noted that studying in the U.S. was his own idea: “My father always supports me as long as my idea is reasonable. My mother did not want me to be far away from home simply because I am the only child in the family. But she was not strongly against my idea, either.” Qi, a pre-business major, had a similar experience: “It was my own idea to pursue undergraduate education in the U.S. My parents initially did not agree with me because they thought I was too young to take care of myself. But they changed their mind after seeing me work really hard on my TOEFL test.”

However, for some students, it was a tough job to convince their parents to allow them to study abroad. Xiaozhou, a pre-electrical engineering student, described his experience:

It was all my idea to study in America, including program and university selection. Of course, my parents pay for my college. My mother was on my side, but my father thought it was not necessary to pursue undergraduate education in the U.S. So, for quite a long time, he did not want me to study in the U.S. However, my performance on the Gaokao was kind of a “disaster.” As a result, I could not attend any college in China. Despite that, I made myself clear that I would not spend another year preparing for the Gaokao again. So, my father had no other choice but to allow me to study in the U.S. But before that, we argued at several occasions.

The interviews revealed that the study abroad initiation process had long-term effects on participants’ academic experiences at the U. Cong, a pre-business student, posited that “students may not have a positive attitude towards their study abroad experience if they are forced to pursue their education in America. Related to that,

students may not take ownership of their own learning in the U.S.” Additionally, Rui mentioned a telephone conversation he had with his father:

Last semester, my father was concerned about my study in the U.S. In one of our telephone conversations, I assured him that studying in the U.S. was my own choice. I told him I might have an excuse for not studying hard if I was forced to study abroad. However, since it was my own idea, I would not forgive myself if I do not make the best out of the opportunity. I promised my father that I would hold myself accountable for the choice I made.

In short, the majority of participants reported that their parents raised the idea of studying in the U.S., while less than a half indicated that they suggested the idea. Participants’ perceptions of their involvement in study abroad initiation process were also found to have an effect on their academic experiences in the U.S.

Importance of studying abroad to students. Given the concerns that Chinese undergraduates may pursue a study abroad experience for reasons other than educational purposes (Ward & Masgoret, 2004) and that study abroad may be “effectively forced upon them” (Counsell, 2011, p. 52), in the survey I asked participants to rate the importance of their study abroad experiences. Figure 7 illustrates the survey results. Specifically, 22.3% of students rated their study abroad experiences as extremely important ($n = 39$), 45.7% rated their experiences as very important ($n = 80$), and 24.6% rated their experiences as important ($n = 43$). Together, 92.6% of participants took their study abroad experience seriously. In contrast, only 6.2% of participants rated their overseas education in the U.S. as not important or slightly important ($n = 11$).

These survey results were reflected in interviews with Chinese undergraduates. Ying, a pre-pharmacy student, mentioned that the idea of studying abroad was suggested by her parents. However, Ying believed that she would make the same decision sooner or later without her parents’ influence: “It is very important to get an American degree,

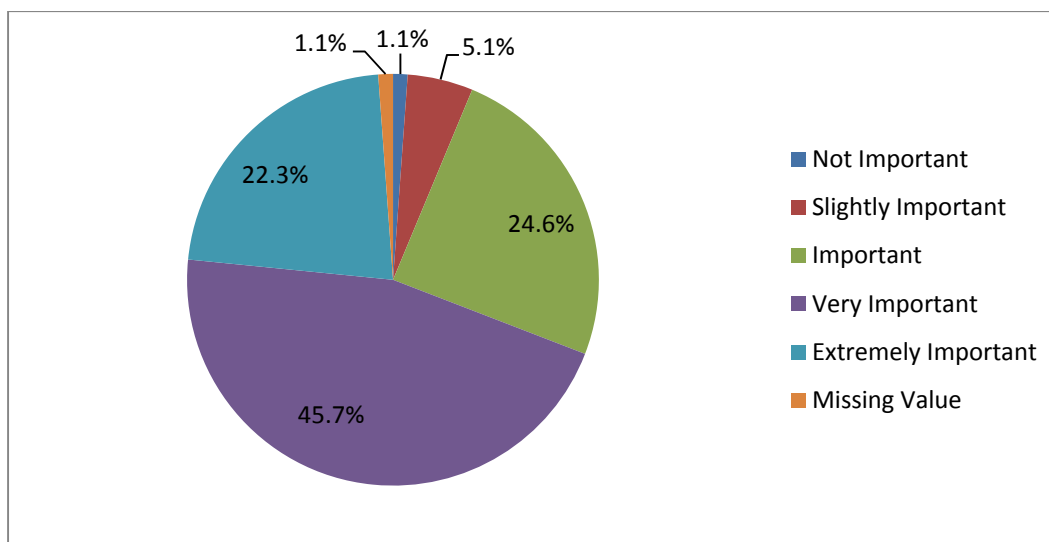


Figure 7. Participants' Perception of Importance of a Study Abroad Experience

which is viewed as more valuable than a Chinese degree.” Hong noted that the attraction of pursuing an undergraduate study in the U.S. is almost irresistible: “America is like a piece of cheese, and all the mice want to take a bite of it. At American universities, Chinese students can not only learn knowledge and technical skills, but they can also learn how to be a good person.” Yan, a pre-business student, emphasized that English is very important to her future career and to realizing her dreams and goals. Therefore, Yan was very dedicated to learning English. On the other hand, in my conversation with Cheng, he mentioned several times that study abroad experience did not mean much to him because he intended to take over his father’s business in the future: “It does not make any difference if I have good or bad academic performance at the U. I do not have any pressure or motivation to do well. I feel I can even drop out of college at any time and then go back to China.”

In summary, participants reported that their study abroad decision-making processes were quite complicated. While some students chose overseas education as a

reaction to their failure to attend a Chinese college or university, others pursued the option as a proactive approach to obtaining a quality education in the U.S. Additionally, the idea of studying in the U.S. was more often initiated by participants' parents than by participants themselves. However, despite these differences, the majority of participants indicated that they valued their study abroad experience.

Applying to U.S. Universities

The U.S. and China are different in many respects, including their higher education systems. For many Chinese students, navigating the American college application process can be an intimidating task. Therefore, in this subsection, I examine participants' experiences applying to American colleges and universities, including use of education agents, admission type, and choice of college major.

Use of education agents. The survey results show that the majority of participants chose to use education agents in their application to American colleges and universities ($n = 155$; 91.7%), while only 8.3% of participants were on their own in completing their American college admissions application ($n = 14$). Lei, a pre-chemistry student, initially planned to seek an agent's professional assistance. However, his father was against it and insisted that Lei apply to U.S. universities by himself. So, Lei ended up just doing that. Qijia received do-it-yourself training for how to apply to American universities. According to him, "the U's application process was quite simple and straightforward because applicants were not required to submit a personal statement." Qijia indicated that writing a personal statement could be a big challenge for him and that he quit applying to one of his favorite American universities just because it required a personal statement.

For those who chose to use education agents, the majority were satisfied with the services they received. Hao paid approximately 30,000 Chinese yuan (equivalent to approximately \$4,800) to his agent, who in return helped him apply to American universities and for an American visa. Tingting, a pre-business student, described her experience working with an education agent:

I chose to use an agent because it was kind of late when I decided to apply to American universities. My mother knew the agent, so I received discounted services. I ended up paying only about 10,000 Chinese yuan (equivalent to approximately \$1,600). The agent let my mother know the whole procedure so that we could provide all the required documents within a short period of time. I took the Gaokao in June, and the agent had my admission letter from the U in July. The whole process was very smooth, and the agent's services were very professional and helpful.

Tingting's comments were typical among study participants, although not everyone shared her positive experience with education agents. Qi paid about 20,000 Chinese yuan (equivalent to approximately \$3,200) to her agent but regretted doing that: "It was ridiculous to pay 20,000 Chinese yuan for the services I think I can do now." Cong had very unpleasant experiences with her agents. The first agent she used miscalculated her high school GPA, an error that caused all of her first-round applications to be rejected by American universities. This left her with no other choice but to pay another agent to assist with her application process. According to Cong, "I could have been accepted into the U as a regularly admitted student, but my application was too late. So, I ended up being accepted as a Global Pathways student. I was really mad because I paid a lot of money to two agents but just got a mediocre result."

Overall, using an education agent to assist in applying to American universities was a common practice among participants. Although some students reported unpleasant

experiences with their agents, most participants were satisfied with the services they received.

Regular admission vs. pathway programs. As discussed previously, in seeking to increase its international student enrollments, the U has partnered with Kaplan to create two pathway programs: Global Pathways program and U.S.-Sino Pathway Program (USPP). Both are university preparation or conditional admission programs. USPP targets Chinese students specifically, and the Global Pathways program is open to international students from around the world. Of the two programs, the Global Pathways program has quickly gained much attraction with Chinese students. Figure 8 illustrates the survey results related to admission type among study participants. Of the 175 study participants, 92.0% were Global Pathways students ($n = 161$), 2.3% were USPP students ($n = 4$), and 5.7% were regularly admitted students ($n = 10$).

The interviews revealed several reasons why the Global Pathways program was popular among participants. First, many participants' English proficiency test scores fell

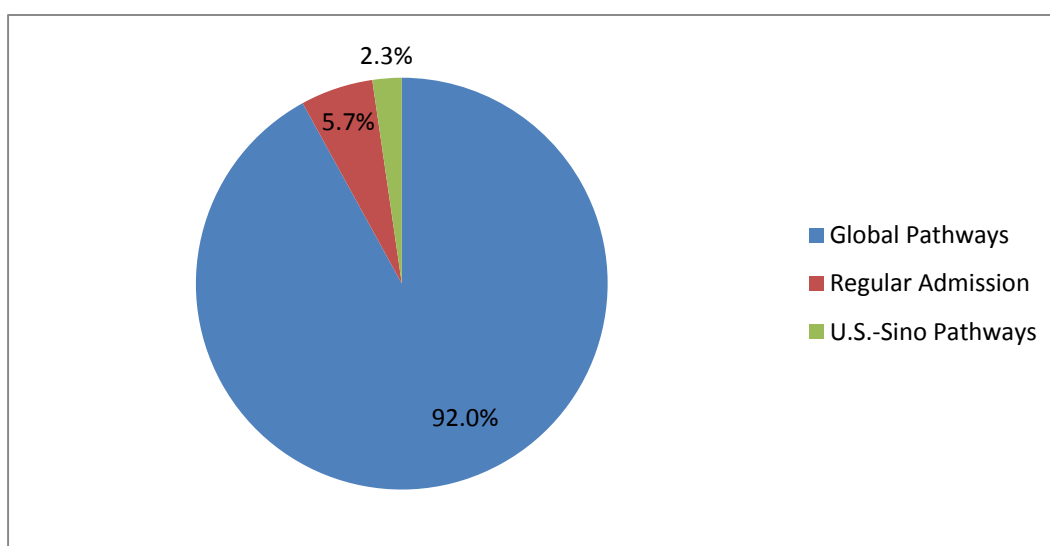


Figure 8. Distribution of Participants by Admission Type

short of minimum cutoffs. According to Jing, “English has always been a struggle for me. After taking TOEFL for three times, I felt really tired, fed up, and miserable. So, I decided to apply to the Global Pathways program the moment I heard about it.” Second, some students missed application deadlines for regular admission. Ming mentioned that his TOEFL score was above the minimum test score requirement set by the U. However, his application missed the fall semester deadline. Despite that, his father did not want him to wait for another year in China. Therefore, he decided to join the Global Pathways program. Third, some students did not really understand the nature of the Global Pathways program. According to Qi, “many Chinese Global Pathways students had a high TOEFL score. However, their agents lied to them about the nature of Global Pathways program in order to make more money.” Finally, some students used the Global Pathways program as a buffer zone. Yan discussed her experience in the following manner:

I could have been admitted into the university as a regular student. But I felt I was not ready for the challenges in American classrooms. So, I preferred to have a buffer zone until I would become confident about my English skills. That is why I chose the Global Pathways program. In fact, I am much comfortable for being part of the program.

However, in the interviews, many participants indicated that they had mixed feelings about the Global Pathways program, a point I will revisit later.

Choice of college major. Selecting a college major is an important decision for Chinese undergraduates. Although the U offers a wide range of majors for students to choose from, the majority of participants were interested in a business ($n = 106$; 60.6%) or an engineering ($n = 35$; 20.0%) major (see Figure 9). Additionally, in response to the survey question “Who had the biggest influence on your choice of a major at the U?” about half of participants indicated that they chose their college major without external

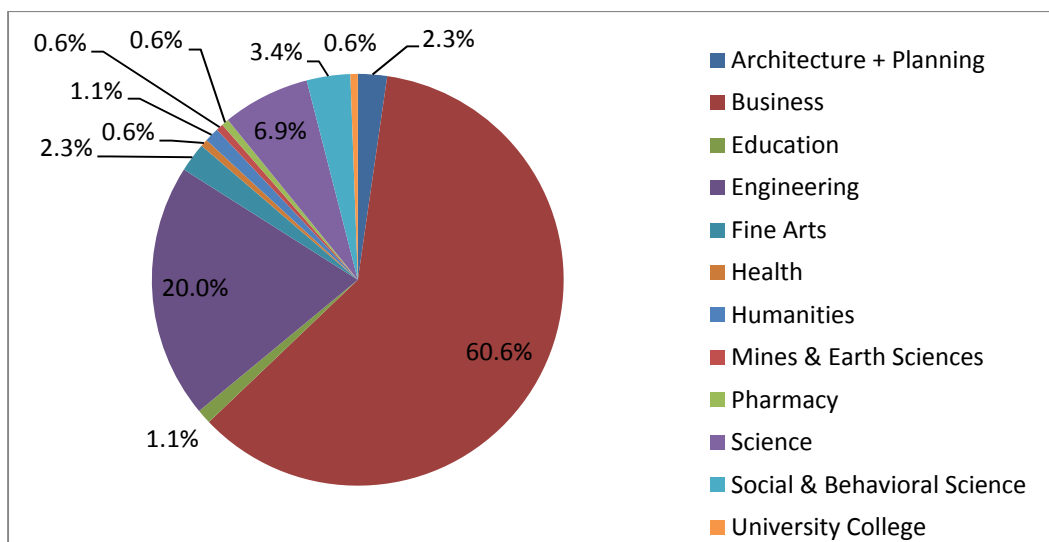


Figure 9. Distribution of Participants by Major College

influence ($n = 84$; 48.0%), followed by more than a third reporting that their parents had the biggest influence on their major selection ($n = 64$; 36.6%) (see Figure 10).

The interviews shed more light on the popularity of business majors with study participants. First, participants' family background had a large influence on their major selection. Qi and Tingting noted that many Chinese students' families own a business in China. According to Tingting: "These students' parents want them to major in business-related fields, hoping that one day their students would come back equipped with business tools and skills to help run the family business." In addition, some participants pointed out that in the midst of China's economic boom over the past several decades, there has been a "fever" over the business-related fields among Chinese students and their parents. This fever also had a great influence on Chinese undergraduates' major selection in the U.S. Wei, a pre-business student, mentioned that he was admitted into a second-tier university in southern China. However, he could not enter its finance program. According to Wei:

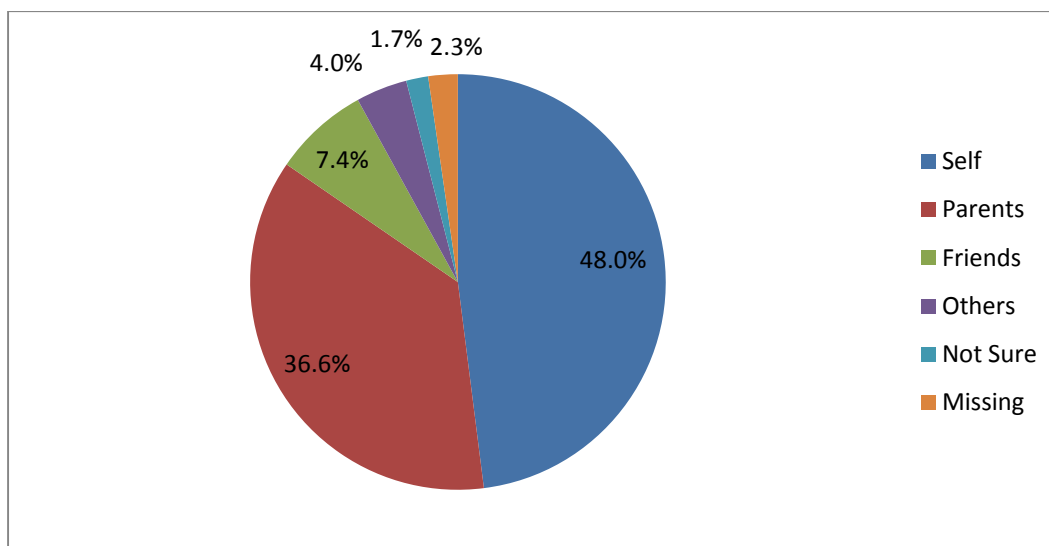


Figure 10. Individuals Influencing Participants' Choice of a College Major

I could get into a program such as psychology or sociology, but my father thought those kinds of programs would not help me build a brighter future. Instead, he figured that China would further open up its financial markets in the future and therefore there might be a great need of young talent in the financial fields. So, he wanted me to study finance in the U.S.

However, some participants expressed concerns about too many Chinese students studying at American business schools. Xiaohua indicated that he was not interested in a finance major at all although his parents really wanted him to study it: "I believe that there are already too many Chinese students majoring in finance now. The job market for these students must be really competitive in the future." Xiaozhou mentioned that he originally chose to study business administration at the U but changed his mind later: "I want to be able to contribute to the society in the future and figure that an electrical engineering degree would help me contribute more to the society than a business degree. To me, engineers make cakes, while businesspeople cut cakes."

Furthermore, the findings from the interviews indicated that although participants had great freedom to choose their college major, their parents had considerable influence

on their choice. In my conversation with Shuhui, she indicated that she was struggling to choose between biostatistics and actuarial science: “My mother strongly encouraged me to major in actuarial science because of future earnings and immigration consideration.”

Hong described her college major selection in the following manner:

I did not like going to business school. But my parents believed that attending business school would bring me a better future and help achieve my personal dreams. So, they insisted that I should choose a business-related major...I feel my parents have decided everything for me ever since I was a little girl, including planning for my future. I do not really need to make any decision by myself. Instead, I just need to do whatever my parents tell me to do. They chose my major when I was at college in China, and they chose my major at the U.

However, as Yan pointed out, too much parental involvement in college major selection could actually have a negative effect on student academic achievement.

According to Yan, “I wanted to study English when I was at college in China. But my parents believed that there were already too many students majoring in English. So, they forced me to study Spanish, although I was not interested in it at all. As a result, I totally lost interest in my study.”

In summary, descriptive analyses of both quantitative and qualitative data revealed several striking characteristics of study participants. First, virtually all participants financed their overseas education through family resources. This stands in stark contrast to their PRC predecessors studying in the U.S. during the 1980s and 1990s, who relied primarily on financial support from the Chinese government or American host institutions. Second, many participants were not academically prepared for pursuing undergraduate education in the U.S. The majority of participants were in 51-80% of their high school class rank, and some even failed to secure a position in Chinese higher education. Third, although Chinese students were getting more involved in the study

abroad initiation process and college major selection process, their parents played an important role in their overseas education decision-making processes. These background characteristics have a great influence on participants' first-year academic experiences at the U, which I explore in the next section.

First-Year Academic Experiences

This section addresses the second set of research questions: "What are Chinese international undergraduate students' first-year academic experiences at the U? What challenges do they face? What are their coping strategies?" Findings in this section primarily draw on the qualitative data collected through interviews with 26 Chinese undergraduates. Additionally, the quantitative data collected through survey questionnaires complement the interview data.

In the interviews as well as in the survey, I asked many questions concerning participants' first-year academic experiences at the U. Students had a lot to say not only about their own experiences but also about the experiences of their friends and/or classmates. Nineteen codes were derived from the qualitative data, and they were further grouped into four themes: academic environments, academic experiences, academic challenges, and coping strategies. Table 6 shows these four themes and their related codes.

Academic Environments

The academic environment in the U.S. differs in a number of respects from that in China. Therefore, before setting out to examine participants' academic experiences at the

Table 6.

Participants' First-Year Academic Experiences

Academic Environments	Academic Experiences	Academic Challenges	Coping Strategies
Quality of academic programs	Overall learning experience	Language barriers	Choosing appropriate courses
Campus resources for international students	Achievement motivation and study efforts	Academic adjustment	Choosing student-friendly instructors
The Global Pathways program and ESL classes	Student-faculty interaction	Academic dishonesty	Developing self-motivation and self-control skills
Too many Chinese students on campus	Peer interaction	Low achieving students	Developing good study skills and habits
	Student satisfaction		Forming a support network
			Choosing a good living environment

U, I first explore their perceptions and evaluations of the U's academic environments, the atmosphere in which they learn and the academic resources available to enhance their learning. The four codes that make up this theme are: quality of academic programs, campus resources for international students, the Global Pathways program and English as a Second Language classes, and too many Chinese students on campus.

Quality of academic programs. The majority of participants described the quality of academic programs at the U as excellent. Wei noted that the U is the flagship institution of higher learning in Utah and one of the top public research universities in the

U.S.: “The U has many nationally and internationally ranked academic programs, and Chinese students can definitely improve their academic and English skills here.” Ming felt the quality of the U’s academic programs is much higher than the quality of academic programs at most Chinese universities: “In China, students have to take a lot of courses on political ideologies, which are really boring and meaningless.”

Compared with the top-down instruction practiced in Chinese classrooms, many participants preferred the dynamic atmosphere in American classrooms, including the freedom to ask questions, the intensity of student participation in class activities, and the level of student-faculty interaction. Guoqiang compared his college experiences in the U.S. with his college experiences in China and had the following to say about his perceptions of teaching and learning practices in the two countries:

Chinese instructors/professors are accustomed to lecturing students. In contrast, American instructors/professors are more dependent on interactive teaching techniques. As a result, Chinese students are expected to be passive recipients of information, while American students are expected to be active participants in their own learning.

Lan, a pre-civil engineering student, noticed that “student participation is emphasized and encouraged in American classrooms. This is unlike in China, where teachers do all of the talking in class.” Hao was excited about “the open and positive atmosphere in American classrooms and the freedom to ask questions in class, to share and defend personal opinions, and to participate in class discussions.” Jun appreciated the opportunities to learn side-by-side with other international students in his ESL classes: “These opportunities allow students to explore varying cultures and to see that even when people have different customs and traditions, they often share some common traits, too.”

Participants also welcomed and enjoyed the freedom to choose their own courses and to pick or change their college major at the U. Peng, a pre-business student with 2

years of college experience in China, noted that “American students enjoy much more freedom than Chinese students. In China, class schedules are often fixed for college students. In America, however, students can create their own class schedule based on the availability and convenience of courses.” Zhong pointed out that “it is almost impossible to change college major in China, especially if a student wants to change from one unpopular major to a popular one such as finance or mechanical engineering. But it is really easy to do so in the U.S.” Moreover, participants welcomed some other newly gained freedoms in the U.S. Cong observed that “students do not have to knock on the door when they are late for class, and they can even drink or eat during class.” Jing felt she was her own master in the U.S.: “Unlike in China, no one forces me to get up in the early morning and then go to school, and no one asks me to do endless amounts of homework at night.”

Furthermore, participants praised the U’s physical and technology infrastructure, including its computer lab facilities and campus wireless network. Many participants particularly hailed the U’s Canvas system, a learning management system that helps create course content, speeds up grading, and tracks learning outcomes. According to Yan, “Canvas system allows students to track their academic progress so that they can take control of their learning.”

Although most participants enjoyed the U’s academic environments, some students voiced their concerns. Ying, an American high school graduate with a 3.9 first-term GPA at the U, indicated that she was considering transferring to another university:

To be honest, the U’s academic environments are not very appealing. Over the past several years, the U brought in many international students who were neither serious about nor academically prepared for studying in the U.S. Sometimes I feel frustrated because it is hard to find someone to

discuss academic problems. So, I do not really like studying at the U and want to transfer to another institution with more competitive academic environments.

Ying's thought was echoed by Tao, a pre-electrical engineering student who gave up the opportunity to attend a top-tier Chinese university in order to study at the U:

I feel the U's academic environments are not very competitive. As a result, I do not really have any academic pressure. To be honest, I do not like this feeling. I wish I could be in the middle 50 percentile or even lower in class in terms of academic performance. Then, I have to work really hard to get to the top of class. I would really like that kind of feeling. Unfortunately, I am in the very top of my class in terms of academic capabilities, and I do not feel good about that.

While acknowledging the U's efforts to protect students' privacy, some participants worried about the lack of communication between the university and the parents of student. For example, Tingting mentioned that in China, teachers would always touch base with students' parents if they do not perform well in school. As a result, the parents may get involved in students' learning. However, as Tingting noted, "American universities are prohibited to do so by law. Therefore, Chinese parents cannot get any information about their children's academic performance in the U.S. unless their children are willing to share the information with them." Tingting felt this is unfair to Chinese parents, who invest so much in terms of money and efforts on their children's overseas education.

In the interviews, many participants discussed the nature of the surrounding community. Generally, they had positive feelings about Salt Lake City. They noted that Salt Lake City is quiet and safe and that local people and American students are friendly to international students. However, some participants complained about the inconvenience of public transportation and the lack of entertainment in Salt Lake City. Cong described her experience:

To be honest, there is not much entertainment in Salt Lake City. So, sometimes I feel bored. But this is not necessarily bad thing for me. My mother always says that one of my weaknesses is lack of self-control. So, if I was in New York City or Los Angeles, I might not spend time studying at all. I mean those cities provide too many distractions from studying. From this perspective, Salt Lake City is an ideal place for students like me.

Overall, participants enjoyed the quality of academic programs and instruction, some newly gained freedoms, and the physical and technology infrastructure at the U. They also had positive feelings about the U' surrounding community. However, some participants were disappointed at the lack of competitiveness in the U's academic environments.

Campus resources for international students. Generally speaking, participants did not actively seek assistance or support from campus support services for international students. While some participants felt they did not really need assistance from the Writing Center or the Counseling Center, others blamed themselves for the lack of interest in taking advantage of these resources. Ying mentioned that she had never used student support services at the U: "First, I am doing well in my classes. So, I do not need any help from tutors. Second, my writing skills are pretty good. So, I do not need to use the services from the Writing Center." On the other hand, Han felt he could get better help from his instructors than from the Writing Center: "The instructors always have different requirements. Sometimes I got assistance with my paper from the Writing Center, but I still could not get good grades from my instructor."

Among those who did use campus support services, the majority described their experiences as positive. For example, Ming said:

I really like English Conversation Corner, a weekly event held by the Global Pathways program at the U. I have been going to the event every week since I came to the U. The goal of the event is to enhance

international students' academic and cultural adjustment in the U.S. Every week American student leaders would discuss a topic related to American traditions and customs. For example, we talked about St. Patrick's Day this week. Over the past two semesters, I have learned a lot about American culture through this event.

However, some participants felt the university could provide more and better services to international students. Guoqiang identified two areas where he would like to see some improvement: more financial aid and internship opportunities for international students. He noted that most American students in his class received some forms of financial support, but similar opportunities for international students were extremely limited. Guoqiang also expressed frustration over the lack of internship opportunities for international students and urged the U to take action to improve the situation. Lei felt Chinese undergraduates could use more academic advising from the university: "Many Chinese students do not really know what they want to study when they first arrive at the campus. The university can help them learn more about different academic programs. In addition, some first-year students do not know which courses they should take. The university can also help with that."

Additionally, some participants reported unpleasant experiences with campus support services. For example, Lan talked about the problem she had with her academic advisor, "It is really hard to set up an appointment with my advisor in a timely manner because she is responsible for too many students. I cannot just walk into her office, and it usually takes her several days to respond to my emails. Sometimes I can wait for several days. But sometimes I cannot wait for that long time. So, this has become really troublesome." Rui also talked about his experiences with student service departments:

I passed the U's English proficiency test, and wanted to have a new I-20 form. So, I went to the Global Pathways program at the U but was told to go to International Center (IC). So, I went to IC but was told to go to

Student Service Building (SSB). Once I was at SSB, I was told to go back to IC. So, I went back to IC but was told to go back to SSB again, where I finally submitted my petition for a new form. I was really frustrated.

The survey results indicated that more than half of participants lived in on-campus residence halls ($n = 99$; 57.2%) during their first semester at the U. However, by the time I conducted interviews with 26 students in the following spring semester, some of them had moved out of their resident hall to live off campus, while several other students were planning to move out by the end of the spring semester. The interviews revealed two main reasons why participants did not like living in on-campus residence halls. First, living on campus was expensive. Second, participants were noticeably bothered by the food quality on campus. Han's comment on the issue was typical among participants:

I lived in university residence hall last semester and paid more than \$700 per month. That was too expensive for me. So, I moved out at the end of first semester, and now I live in an off-campus house with several friends. Since we share the house, each of us just pays more than \$200 a month for rent. Moreover, food quality at Heritage Center was terrible, and the menu consisted of too much North American fast-food. The first couple of weeks I ate there, I thought the taste of food was ok. But after a while, I could not stand the taste of food there anymore. Now I enjoy cooking Chinese food at our house.

It is worth noting that while this study was conducted, Panda Express—a fast casual restaurant chain serving American Chinese styled cuisine—opened a station at the Union's food court. Food trucks and trailers serving Asian cuisine were also available at the U's library square. They provided more dining options for Chinese undergraduates.

The Global Pathways program and English as a Second Language (ESL) classes. Designed to help international students be successful at the U, the Global Pathways program and ESL classes were not well received by many participants. As far as the Global Pathways program is concerned, the main problem as revealed by participants was that the entry requirements for the program were too low. As a result,

many Chinese students who were not well prepared for studying in the U.S. were accepted into the program. Wei talked about his experience with the Global Pathways program:

I believe that entry standards for the Global Pathways program are too low. As a result, many students who are really interested in studying in the U.S. are scared away, while many students who are accepted into the program are neither academically prepared for nor serious about their studies. These students' English language skills are poor; they do not participate in class discussion; and they do not really spend time on their study. Some of these students cannot even attend a college in China, and they should not have been accepted into the Global Pathways program at the U. Do not you think it is ridiculous that a student who cannot enter a Chinese college can actually attend the Utah's flagship university? After all, the U's ranking is much higher than that of many Chinese colleges and universities.

As will be discussed later in this chapter, many Chinese students in the Global Pathways program lacked academic preparation, good study skills, achievement motivation, and self-control skills. Tingting sensed these students were at risk for failure. Qi, who was a Global Pathways student, felt awkward and embarrassed because the academic performance of many Chinese Global Pathways students was really poor. Tao was concerned about the situation and urged the U to work with the Global Pathways program to set higher entry standards for the program:

I really think it is time for the university to tighten its entry requirements for the program, which are so low now that almost everyone can get into the program. How can the U claim itself to be one of the world's premier institutions if it continues to accept low-quality international students? I understand the university hopes that the Global Pathways program can serve as a buffer zone for some international students. However, because entry requirements for the program are too low, many students cannot make satisfactory progress even after studying in the program for 1 year.

Moreover, some participants talked about the dilemma the university faced with regard to the Global Pathways program. According to Xiaozhou, "The U wants to raise

its ranking, and it also wants to make more money by attracting more international students. But sometimes these two goals contradict each other.”

ESL classes are intended to improve international students’ ability to communicate in English. However, study participants revealed that they had mixed feelings about these classes. On the one hand, most participants acknowledged and appreciated the university’s efforts to improve their communication skills, and some students had positive experiences with both ESL classes and ESL instructors. For example, Qiajia emphasized that “it is really important to improve Chinese students’ English skills—particularly their listening and speaking skills—so that they can do well in their academic studies. From this perspective, ESL classes are important and Chinese students should become more enthusiastic about them.” Cheng also praised that “ESL classes are tailored to the needs of international students. As long as they go to class, complete homework on time, and perform other tasks as assigned by instructor, they should be able to achieve an appropriate level of academic progress.”

On the other hand, many participants were troubled by the practice of using graduate teaching assistants (GTA) to teach ESL classes. They indicated that many GTAs lacked appropriate teaching skills, subject knowledge, sense of commitment, and nurturing skills and attitudes to be effective instructors. According to Ming, “GTAs have to take their own classes and work on their own assignments. So, they cannot afford to spend much time with their students. Sometimes it takes them a couple of days to respond to the students’ email inquiries.” Lan also talked about her experiences with one GTA/ESL instructor:

In my opinion, this student instructor was not very qualified. She spent a lot of time reading the textbook in class. Sometimes she did not know how

to answer students' questions, and would simply say "I do not understand the problem, either. Let us just forget about it." Besides, sometimes she would randomly assign grades to students' assignments.

Qi pointed out that "many ESL classes are boring, and students can barely learn anything from these classes. Sometimes all we do in class is to listen to the instructors bragging about their own experiences and then brag about our own experiences."

Many participants particularly complained about inconsistency and unfairness in assessment procedures and expectations of instructors. Han indicated that to a great degree, students' grades are determined by what kind of instructors they have: "Last semester I had a class on reading and presentation skills. The instructor was very tough. Of more than 20 students in the class, only four or five successfully passed it." Hao pointed out that different instructor may have very different assessment procedures although they teach the same class: "One instructor I had last semester used a very different grading system, which I was not used to. As a result, my final grade was slightly higher than 60. So, I failed the class, and have to retake it this semester. Fortunately, I have a very good instructor this semester. So far my grade for the class is more than 90."

Yuhai, a pre-business student, made the following comments on the subject:

I am not used to ESL instructors' teaching methods and teaching practices. Different instructors can have very different course requirements and assessment procedures, although they are teaching the same course but different sections. A friend of mine and I took the same ESL course last semester, but we were in different sections. My instructor always assigned a lot of homework, while my friend's instructor only gave minimum amounts of homework. I attended class every time and studied hard, but only got a "B." In contrast, my friend seldom went to class and almost never studied for it, but he got an "A." I feel this is unfair.

Additionally, some participants felt their instructors treated Chinese students differently from other international students. Some participants also wished that their instructors could have been more caring and nurturing with Chinese students. For

example, Lan complained that one of her instructors treated South Korean students much better than Chinese students. In addition, Jing told a story about one of her friends:

My friend and I took the same writing class last semester. To be fair, my friend was not a good student. Sometimes he missed classes without any reason, and sometimes he did not turn in his assignment. It did not take me a long time to figure out that the instructor did not like him. One time my friend did turn in his writing assignment, but the instructor did not believe that my friend wrote the assignment by himself. My friend tried to explain, but the instructor just did not believe what he said. My friend got really emotional and finally tore his assignment apart...I knew my friend had his own problem, and I understood the instructor was disappointed at him. But still I wish the instructor could have been more patient with him.

Overall, these comments indicate that although using GTAs to teach ESL classes may be unavoidable, it is essential for the U to establish or enhance procedures to develop and strengthen these student instructors' teaching skills. The U also needs to establish or enhance procedures to monitor and evaluate these student instructors. At the very least, these GTAs should be able to demonstrate an appropriate level of professionalism in working with international students and competence in the subject matter they teach.

Too many Chinese students on campus? With Chinese students already accounting for more than 3% of the U's student population and new Chinese students continuing to arrive on campus, in the interviews, many participants expressed concerns about having too many Chinese students at the U. They indicated that Chinese students have a tendency to group together and not to mix with American and other international students. They were afraid that having more Chinese students on campus would not help solve the problem but contribute to an inordinate amount of socializing among themselves. In fact, many participants reported that they had already missed an important

component of overseas education—interacting with American peers and international students from other countries. Xiaozhou discussed his experience:

Based on my personal experience and observation, most Chinese students just stay in their own little groups and do not interact with their American counterparts. I cannot help but think that if there were fewer Chinese students on campus, we would have no other choice but to reach out to American students and international students from other countries. But the reality is there are too many Chinese students at the U. Sometimes you just feel like you are in China. It is not surprising that under this circumstance, Chinese students tend to keep to themselves and not to make a particular effort to communicate with American and other international students. I have this problem, too. Sometimes I try to deal with it. But it is not easy. There are simply too many Chinese students at the U. I think many American students would like to get to know us, but we are used to living our own lives and do not make an effort to mix with them.

Participants also revealed that having too many Chinese students at campus could cause other problems. For example, Yuhai noted:

There are simply too many Chinese students at the U. As a result, some students feel they can make it through their first year of college without having to study hard. I am not kidding about that. I have a class this semester. Although we just reached the half-way point in the semester, I have already known the answers to all the remaining assignments and exams. I do not know where these answers come from. But I do know that many Chinese students have already had them.

In the interviews, many participants tried to explain why Chinese students tend to stick together. Yuhai attributed this to Chinese students' language barrier: "Sometimes I tried to make a conversation with American students. Then it came to the moment when they said something but I did not get it. I felt really awkward and did not know how to deal with the situation: Should I pretend that I understood them or should I just let them know that I did not get them?" Tao figured that this phenomenon might be related to cultural differences: "After all, Chinese students feel much closer with other Chinese students than with American students, who also tend to stick together. So, the phenomenon is not unique to Chinese students." Furthermore, Qijia felt this phenomenon

“reflected Chinese students’ fear of communicating with Americans and adjusting to American campus life and American society.”

In summary, most participants enjoyed the quality of academic programs and instruction at the U, while many reported mixed feelings about the Global Pathways program and ESL classes. Some participants also expressed concern over campus resources for international students and the negative impacts of having too many Chinese undergraduates at campus.

Academic Experiences

In this subsection, I examine participants’ perceptions of their first-year academic experiences at the U. The codes that make up the academic experiences theme include overall learning experience, achievement motivation and study efforts, student-faculty interaction, peer interaction, and student satisfaction.

Overall learning experience. In the survey, participants reported their level of academic stress while studying at the U. The survey results are depicted in Figure 11. Of the 175 survey participants, 18.9% rated their academic experience as not stressful ($n = 33$), 60.0% rated their experience as slightly stressful ($n = 105$), 15.4% rated their experience as very stressful ($n = 27$), and 4.6% rated their experience as extremely stressful ($n = 8$).

These survey results were supported by the interview findings. Compared with their learning experience in China, many participants indicated that their workload at the U was relatively light. For example, Hao mentioned that he had fewer assignments at the

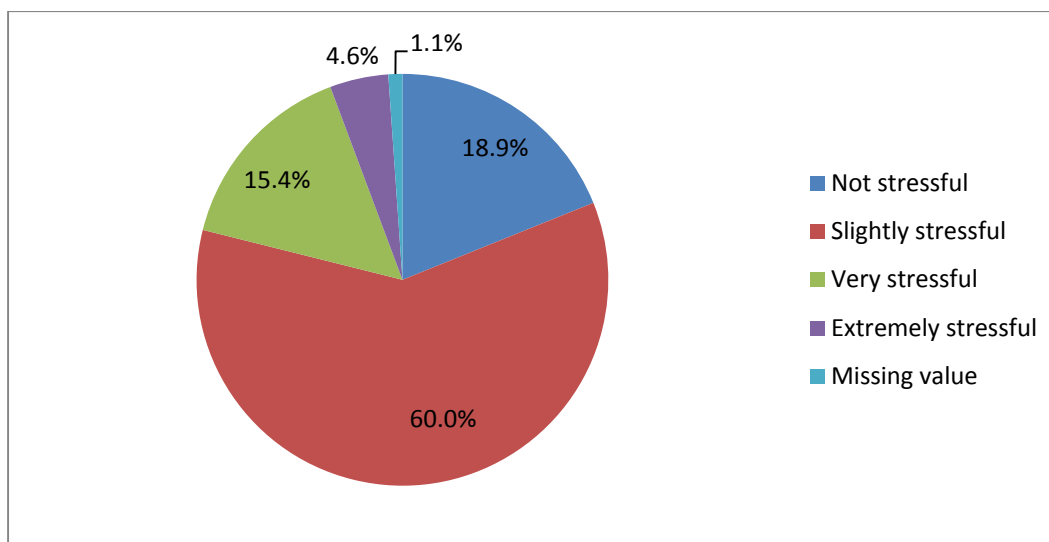


Figure 11. Participants' Level of Academic Stress

U than in China. Tingting also felt that being a student in the U.S. was much easier than in China:

When we were preparing for the Gaokao in China, we had to get up around 6:30 in the morning, study all day long, and go to bed at about 11:00pm. In contrast, a student who takes five courses a semester at the U may have at most three or four classes a day. This workload is piece of cake when compared with what we did for the Gaokao.

Moreover, many participants perceived their coursework at the U as not challenging. Ming admitted that he did not have to study hard to earn a good GPA: "I have four classes this semester, three ESL classes and one calculus class. ESL classes are really easy, but international students are required to take them. I thought calculus would be hard. But it is not. So, I am not academically challenged at all." Rui felt a similar way: "the courses I have taken so far are surprisingly easy for me. I feel like I can just go there and get 'A's.'" Ying also indicated that she did not have any real challenges at the U: "I understand all the topics covered in my classes, and I do not need help from my professors with my assignments."

However, not everyone felt the same way as Ming, Rui, and Ying did. Lei took four classes in the spring semester and felt these classes were a big challenge to him: “I am chemistry major. I kind of have trouble memorizing the terminologies in my field. Besides, I am not good at English writing.” Juan, a pre-computer science student with 2 years of high school in Palau, talked about her learning experience: “I usually do not do well in classes where final exams account for more than 50% of the grade. I feel final exams hold too much weight. If I do not do well in finals, my grades plummet. Moreover, although my English speaking and listening skills are pretty good, my English grammar knowledge is really poor.” Han was frustrated about his assignment grades: “I spend a lot of time on my assignments. But still they do not meet my instructors’ expectations, and the grades I get are not satisfactory.”

Furthermore, some participants faced tremendous academic pressure at the U. This was especially true for some Global Pathways students, who have to meet certain GPA requirements and pass an English proficiency test in order to continue to stay at the U. Jing was one of these students, and she described her learning experience:

My academic stress mainly comes from the pressure to successfully pass the Global Pathways program. Sometime I feel the pressure is so overwhelming that I think I cannot take it anymore. To be honest, sometimes I cannot help thinking what I should do if I fail to pass the Global Pathways program. What if I have to go back to China? I talked to my parents about that possibility, and told them that I would find a job in China if that happens. But in my mind, I know it would mean that my dream is dead and I lose hope in my life.

Several participants tried to categorize Chinese undergraduates into different groups based on their learning experience. For example, Hao claimed that among Chinese undergraduates at the U, approximately 20% were very dedicated to their study, 30% were sort of dedicated, and the remaining 50% were not serious about their oversea

education at all. According to Hao, “many students in the third group do not go to class or complete assignments. Instead, they spend most of their time hanging out with friends or playing computer games by themselves.” Cong and Tingting made similar assessments.

Some participants noticed the differences in the learning experience between Chinese freshmen and transfer students. Guoqiang and Hong sensed that compared with freshmen, transfer students were more mature, self-disciplined, and serious about their study abroad experience. Tingting and Tao added that the Gaokao, as grueling as it might be, was an asset for those who experienced it and a loss for those who did not. According to Tingting, “many freshmen did not take the Gaokao and are not aware of how important it is for students to study hard and have good academic performance. Some freshmen squandered their opportunities in high school back in China, and they are going to do the same thing with their undergraduate education in the U.S.”

Additionally, some participants talked about the differences in the learning experience between the current wave of Chinese undergraduates and their predecessors studying in the U.S. in the 1980s and 1990s. For example, Tingting told the story of his cousin, who had excellent academic records in China and came to the U.S. a decade ago to pursue a doctoral degree in biology with the financial support from an American university:

My cousin lived a very simple life when he was studying in the U.S., devoting all his time and efforts to his classes and research projects. But things are very different now. Many Chinese undergraduates at the U either did not take the Gaokao or did not perform well to attend a college or university in China, at least not a good one. I feel there are many differences in academic background and academic attitude between my generation and my cousin’s generation of Chinese students studying in the U.S.

Furthermore, Jing noted that the globalization of higher education had transformed China's overseas education from elite education to mass education:

To be honest, the students who choose to study abroad in my high school are those who do not do well academically but whose parents are rich. In addition, I can simply tell the differences between Chinese graduate and undergraduate students at the U. Among my friends who are pursuing graduate degrees, most of them receive financial assistance from their departments, work as teaching or research assistants, and study really hard to achieve their personal goals. In contrast, Chinese undergraduates at the U live a very different and crazy life. Some undergraduates do not even want to get a degree from an American university. Instead, they just want to have a good time while in the U.S.

In short, most participants perceived their workload at the U as relatively light and their coursework as relatively easy, while some felt they were under tremendous academic pressure to survive their first year of college. Participants also reported that many Chinese undergraduates at the U were trying to make the most of their study abroad experience, while a high proportion of them were squandering the opportunities available to them. Differences in academic experiences between Chinese freshmen and transfer students and those between the current wave of Chinese undergraduates and their PRC predecessors were also documented.

Academic motivation and study efforts. In the survey, participants identified the factors that motivated their academic efforts while studying at the U. Figure 12 illustrates the survey results related to the issue. Specifically, more than half of participants reported that the prospect of having a good job in the future affects their academic motivation ($n = 91$; 52.0%), followed by 37.1% of participants indicating that they want to prove themselves to others ($n = 65$). Moreover, 29.1% of participants reported that the prospect of attending graduate school in the U.S. influences their academic motivation ($n = 51$),

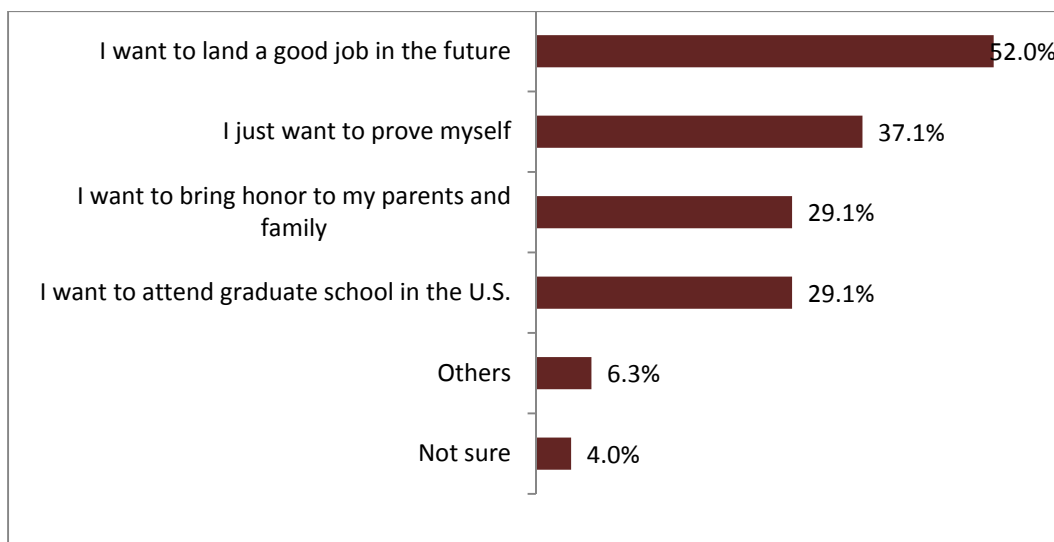


Figure 12. Factors Motivating Participants' Academic Efforts

while the same percentage of participants indicated that they want to bring honor to their parents and family ($n = 51$; 29.1%).

These survey results were substantiated by the interview findings. In my conversations with participants, many indicated that the prospects of obtaining a degree from an American university and finding a good job in China were important factors that not only motivated them to pursue overseas education in the first place but also influenced their academic efforts at the U. Additionally, several students mentioned that their parents made enormous sacrifices in terms of money and effort in order to support their overseas education. Therefore, these students felt they were obligated to do well at the U. According to Lei, "My parents have given me too much love. The least I can do is to perform well in my study." Cong also felt her academic motivation comes from her parents, who not only spend a lot of money on her overseas education but also have high expectations of her. Cong noted that she must live up to their expectations: "Although I may not be able to maintain a 4.0 GPA, I want to earn as high a GPA as possible."

Beyond the limited, predefined choices in the survey, participants in the interviews reported several other factors that affect their academic efforts at the U. For example, some students indicated that their desire to successfully pass the Global Pathways program and enter the second year of a Bachelor's degree program at the U motivates them to study hard, while several other students admitted that their fear of failing classes plays an important role in their learning. Zhong described his academic motivation in the following manner:

My motivation comes from my grades that are frequently updated by the instructors in the Canvas system. In the beginning of a semester, my grades are 100 by default. Then, they begin to fall. It is at this time I begin to feel the heat. In addition, it is not my style to complete assignments earlier. But once I realize the due date is approaching, I start to work on my assignments immediately.

Interestingly, Jun mentioned that his academic motivation comes from the prospect of returning to China as early as possible: "The earlier I complete my study in the U.S., the earlier I am able to go back to China." Similarly, Ying revealed that her motivation comes from the desire to have more free time: "The sooner I finish my assignments, the sooner I am able to start playing computer games, chatting with my friends, or simply surfing internet."

In the survey, participants also reported their level of academic motivation. As illustrated in Figure 13, 8.6% of participants indicated that they were either not motivated at all or just slightly motivated ($n = 15$), 57.7% reported that they were properly motivated ($n = 101$), and 33.1% indicated that they were either highly motivated or very highly motivated ($n = 58$). These survey results were consistent with the interview findings. While few participants reported that they were either very highly motivated or not motivated at all, the majority indicated that their academic motivation was at an

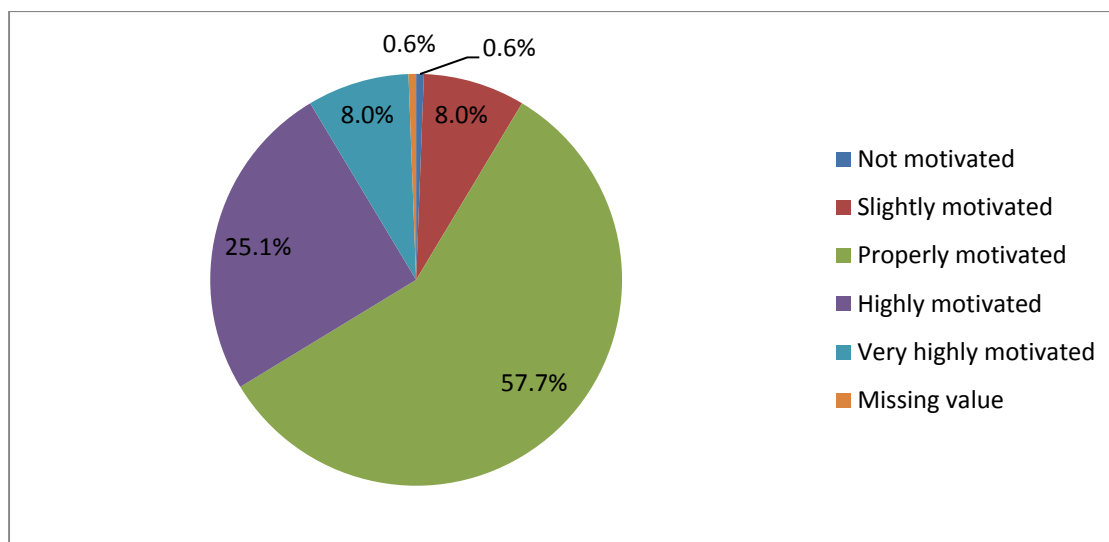


Figure 13. Participants' Level of Academic Motivation

intermediate level. For example, Xiaozhou admitted that he had minimum level of achievement motivation, and he blamed it on the fact that he could not take the classes he was most interested in: “As a Global Pathways student, I am not allowed to take major courses. So, I cannot learn what I really want to learn, and I am very disappointed at that.” In contrast, Xiaohua indicated that he had an intermediate level of academic motivation: “I am quite satisfied with my academic performance at the U. I never expect myself to be the best student in my classes, but I never want to drop out of college and go back to China, either.”

Related to their level of academic motivation, in the interviews, participants reported their level of study efforts. Yan, who earned a 4.0 GPA during her first semester at the U, noted that she was so dedicated to her study that she was unwilling to spend time socializing with others. In contrast, Jing, who earned a 2.1 first-term GPA, admitted that she put very little time and effort into her study:

I have spent too much time with my pillow during my first year at the U. You may not believe this, but it is not uncommon that I sleep for more than 18 hours a day. Not only do I waste my weekends in this way, but I also sleep too much on weekdays. As a result, I often miss classes. As a matter of fact, I failed to pass a class last semester mainly because I often overslept and was absent from class for too many times. Besides, I usually stay up late chatting with my friends online or just watching movies by myself. Sometimes I do not go to bed until 3 or 4 o'clock in the early morning. As for my study, all I do is complete assignments. My ultimate goal is not to fail too many courses.

The interviews found that the majority of participants spent less than 50% of their time on coursework. To my surprise, some students admitted that they spent only 1 or 2 hours per day studying outside of class. Peng, a transfer student with a 3.9 first-term GPA, described his experiences:

Including class time, I spend about two and a half hours a day on my study. Then, I just hang out with my friends. Frankly speaking, unless I have a test or an exam, I do not feel I have to study hard. If you force me to study in the library, I do not really know what I can do there. I mean what else I can do once I have finished my homework.

Similarly, Xiaozhou, a freshman with a 2.9 first-term GPA, indicated that he spent less than 20% of his time on study every day: "I am a Global Pathways student, and I can only take ESL classes or certain general education classes, which in my opinion are very boring and meaningless. If I was allowed to take major courses, I would spend more time studying."

In addition to spending little time studying outside of class, many participants revealed that they often skip classes, especially large, introductory lecture classes. Some participants also revealed a common practice among Chinese undergraduates, particularly Chinese Global Pathways students. That is, some students would choose to drop and then retake a class at a later semester if they feel the class is a big challenge. Sometimes they

would simply stop going to a class in the middle of a semester. Cong, a Global Pathways student with a 3.9 first-term GPA, described her experience:

I have five classes this semester, but I only go to two ESL classes on regular basis. As for two other large lecture classes, I just went to the first meetings and the exams. I also have a drawing class, which I stopped going after it became too difficult for me. I did consider withdrawing from the drawing class, but I missed the deadline to do so.

Moreover, several participants expressed concerns about their lack of “proactiveness” in their academic pursuits. For example, Hong said:

I think my main problem is lack of “proactiveness” in my study. I never spend time preparing for class beforehand or reviewing class materials afterward. All I do is complete class assignments. Further, when I first came here, I usually completed assignments at least a couple of days before the due dates. But as I have more friends, I spend more time hanging out with them and less time on assignments. This semester I always complete assignments at the same day when they are due. Most of my friends are doing the same thing. Moreover, I feel I should spend more time improving my English vocabulary so that I can lay solid foundation for future study. But I am just too lazy to do it.

Cheng also admitted that he was kind of lazy: “I feel I could have significantly improved my GPA if I just put a little bit more time and efforts into my study. However, self-control and self-discipline are not my strengths. I do want to change myself, but it is never easy to break a bad habit.” These comments indicate that helping Chinese undergraduates develop good study habits and take ownership of their own learning can go a long way toward their academic achievement in American higher education.

Student-faculty interaction. In the survey, participants reported on the frequency of their interactions with instructors/professors (see Figure 14). According to the survey results, 63.9% of participants interacted with instructors/professors less than or equal to one time a week ($n = 112$), while 29.7% interacted with instructors/professors greater than or equal to two times a week ($n = 52$). These survey results are consistent with the

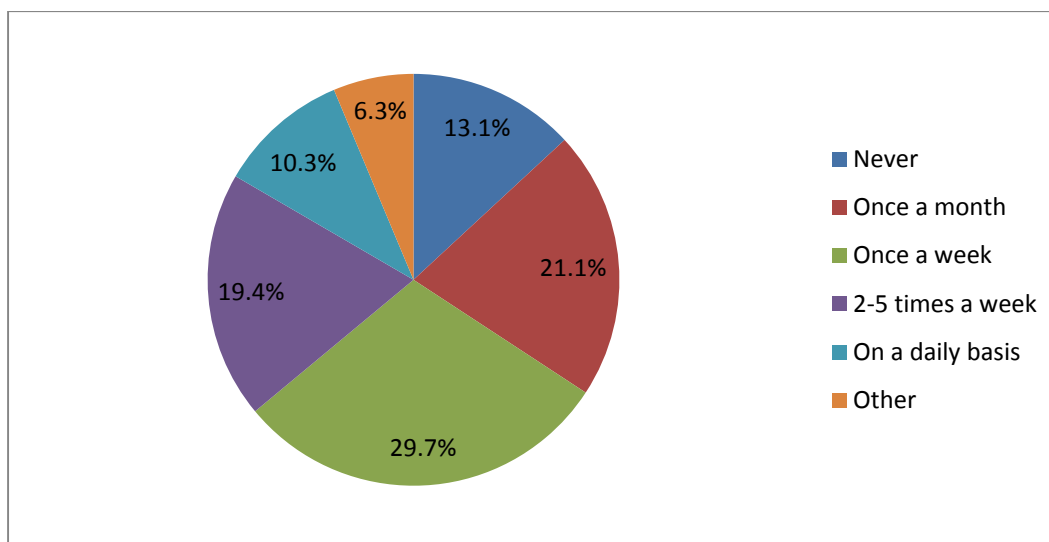


Figure 14. Participants' Interaction with Instructors/Professors

findings from previous research (Liu, 2001; Ping, 2010) and are confirmed by the interviews with study participants. More importantly, the interviews shed some light on participants' attitudes towards student-faculty interaction, different patterns of interactions they had with instructors/professors, and barriers to their interactions with instructors/professors.

Although the frequency of interactions participants had with instructors/professors was low, in the interviews, many students expressed their appreciation for the importance and educational benefits of student-faculty interaction. Some participants also reported that they were gradually getting used to interacting with instructors/professors and trying to get the best out of this process. Guoqiang observed that students interacted more frequently with their professors in the U.S. than in China: "American professors are more accessible, and they are more willing to spend time with students." Qi also noted that compared with Chinese teachers, American instructors/professors are more accessible: "Sometimes they are just like your friends, and you can even make jokes with them in

class. This is unimaginable in China.” Ming described his experience interacting with American instructors:

I had an ELS class last semester, which requires students to make three class presentations. My grade for the first presentation was really low. I had no other choice but to talk to my instructor. To be honest, I was not used to that. Back in China, I would not talk to anyone except for my math and science teachers. Fortunately, I got some good advice from my ESL instructor, and my grades for the second and the third presentations were much better. I am very grateful to that instructor, and I am gradually getting used to this new reality of student-faculty interaction in the U.S.

Ming’s statement was echoed by Yan, who expressed that she interacted more often with her instructors/professors in the U.S. than in China: “I like interacting with the instructors who can engage students in class. I have learned a lot through these interactions.”

Participants also revealed several patterns of their interactions with American instructors/professors. Some students indicated that they prefer small classes, where they are more confident interacting with instructors/professors. Several students expressed that they prefer to interact with instructors/professors shortly before or after class so they do not have to worry about speaking in front of the whole class. Furthermore, some students reported that they interact more often with their major instructors/professors than with non-major instructors/professors. Study participants, including those who would normally avoid interacting with instructors/professors inside and outside the classroom, reported that they are comfortable communicating with their instructors/professors via email. For example, Jing mentioned that she always avoids answering questions in classes unless the instructors call her name: “However, I do not hesitate to email my instructors whenever I have questions about my assignments.” Additionally, Shuhui had the following to say about her interactions with instructors/professors:

I rarely interact with professors in large classes, those that have more than 200 students. In contrast, I am quite active in small classes, those that have

20 to 30 students. Moreover, I usually do not interact with non-major professors because I think it is not necessary.

Participants also discussed the barriers to their interactions with instructors/professors. Some students were concerned about their ability to express their opinions and ideas in English that could be understood by their instructors. Others indicated that they were not accustomed to this educationally purposeful activity. Tao discussed the issue in the following manner:

I think Chinese students' lack of interactions with American instructors/professors is directly related to the way they are trained in Chinese educational system. In China, students are so encouraged to focus on their academic performance that many of them feel it is unnecessary to spend time interacting with their teachers. That may be true in China, but not in the U.S. Chinese students need to adapt to the new reality on American campuses.

Furthermore, some participants expressed concerns about the way they were treated by American instructors/professors. Cong, an IB program graduate who had frequent interactions with American teachers in China, felt one of her instructors at the U might discriminate against Asian students: "This instructor is really nice when she talks to American students. But the way she talks to Asian students is very different." Lan also felt that "some American instructors treat American students better than Asian students. For example, they are more willing to explain questions to American students, and they are more patient with American students, too." Ying described her experiences:

Sometimes I feel American professors have bias against international students. Well, I am not really sure about that. Maybe I am too sensitive. But I feel American professors are very nice and always smiling when addressing American students' questions. However, they become very serious when talking to me.

These comments illustrate that study participants perceived differences in the way American instructors/professors communicate with domestic and international students.

Although American instructors/professors might be very sincere when communicating with Chinese undergraduates, students' perceptions of the meaning behind the interactions could be different. This demonstrates the importance of improving American instructors/professors' cross-cultural communication skills.

Peer interaction. In the survey, participants also reported on the frequency of their interactions with American peers. Figure 15 summarizes students' responses to the question. Overall, slightly more than half of participants interacted with American peers less than or equal to one time a week ($n = 89$; 50.9%), while 38.9% interacted with American peers greater than or equal to two times a week ($n = 68$).

Qualitative evidence supported these survey results. In the interviews, most participants were concerned about their lack of interactions or the superficial nature of their interactions with American peers. Guoqiang noted that although he had made several friends with international students from countries such as Canada and Chad, he had very few interactions with American students: "I view the lack of interactions with

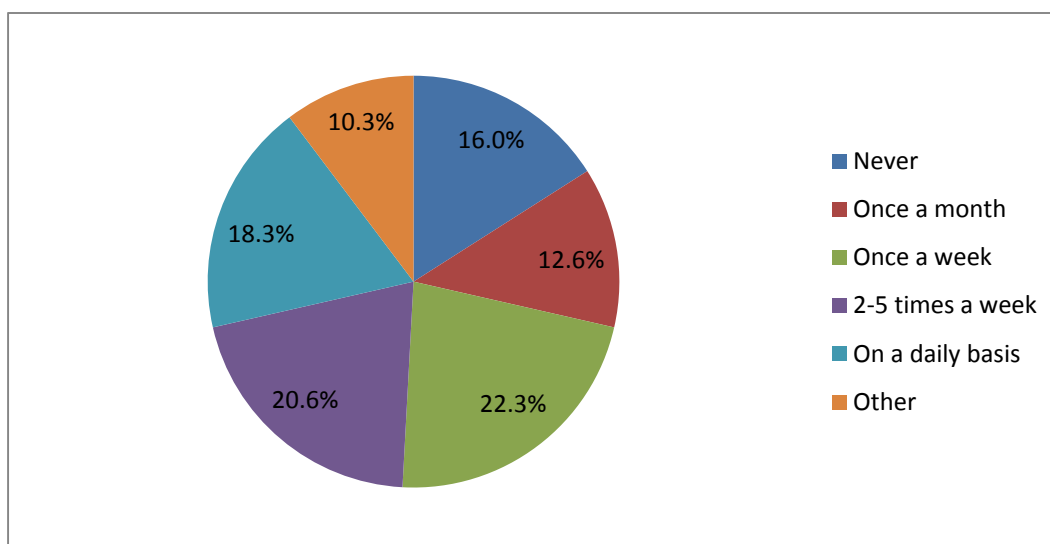


Figure 15. Participants' Interaction with American Peers

American students as one of the main problems I have in my overseas education.” Zhong also admitted that interacting with American students was a struggle for him:

It is really hard to make friends with American students. To be honest, I think many American students are very superficial. On the one hand, they seem to be very friendly to international students. On the other hand, they always avoid being in the same team with international students when it comes to class projects. I think they are afraid that international students may bring down their grades. They also avoid studying together with international students. As a result, it is not surprising that American students always stick together and do not mix with international students.

In my conversations with participants, I found it troublesome that participants who graduated from high schools in English-speaking countries or International Baccalaureate (IB) programs in China also had difficulty interacting with American students. Ying was an American high school graduate with a 3.9 first-term GPA at the U. However, she admitted that she had very few connections and interactions with American students during her first year of college at the U: “All my classes are large lecture classes, and some even have more than 200 students. So, it is very likely that I sit beside different students every time. In addition, most students have already had their own friends, and they like sitting next to each other. Therefore, it is really hard to make new friends in class.” Shuhui also graduated from an American high school and earned a 3.9 first-term GPA at the U. She described her interactions with American students in the following manner:

I only occasionally chat with my American classmates in class, but we never interact with each other outside the classroom. My English is pretty good. So, the language barrier is not a problem for me. But I do feel our cultural differences are huge. As a result, American students and Chinese students have very little in common.

Shuhui’s thought was echoed by Xiaohua, who graduated from an IB program in China. According to Xiaohua, he communicated well with his American teachers in

China, and he was very ambitious about his academic and social life at the U before his departure for the U.S. However, in the interview, Xiaohua admitted that he was disappointed with his first-year experience at the U although his first-term GPA was high. “I know very few American students, and that really hurt,” Xiaohua said, “I have been in the U.S. for almost a year, but I still feel I am a stranger here. To me, English language is not a problem. The problem is we have nothing in common. For example, sometimes American students were laughing in class, but I had no clue what was going on there.”

In addition to language problem and cultural differences, participants revealed some other reasons for their lack of interactions with American peers. First, the Global Pathways students had few opportunities to interact with American students. Many participants pointed out that there were no American students in the Global Pathways program and ESL classes, and they expressed a strong desire for more organized activities, which they believed would help them get to know American students and learn about the American culture. Hao, a Global Pathways student, had the following to say:

I do not know any American students. I have a Chinese roommate in the campus residence hall. All my classmates in ESL classes are international students. The only non-ESL class I have this semester is a large lecture class, which has more than 200 students. It is really hard to interact with American students in such a large class.

Additionally, some participants simply did not appreciate the importance and educational benefits of interacting with American peers. Juan, a Global Pathways student, had mixed feelings about peer interaction. On the one hand, she felt the Global Pathways program did not provide enough opportunities to connect with American students. On the other hand, she admitted that she did not really want to interact with American students. According to Juan, “this may have something to do with my personality because I prefer to be alone most of the time.” Zhong also admitted:

I do not have the desire to interact with American students, and I have never made an effort to do so. I just think it is unnecessary. Well, let me put it this way: it is great if I have opportunities to interact with American students. But it is also perfectly fine if the interactions do not occur. I see this as a natural process but not a forced relationship.

However, unlike Zhong, many participants did make an extra effort to interact and socialize with their American counterparts. For example, Xiaozhou described his effort:

I am tired of taking classes with other Chinese students. So, this semester I made an effort to avoid my friends when picking my selective course. In fact, it turned out I am the only international student in this class. It is great. I have a lot of opportunities to interact with my American classmates, and I have learned a lot from them. Of course, I am aware that only one class cannot solve all my problems. But I think it is a good start.

Overall, participants reported that the frequency of their interactions with American peers was generally low across student groups (i.e., freshmen, transfers, Chinese high school graduates, and high school graduates from English-speaking countries). Many participants were disappointed with the situation and hoped that the university would promote increased interaction between domestic and international students.

Student satisfaction. Participants' satisfaction with their academic experiences at the U was solicited through both surveys and interviews. Figure 16 illustrates their responses to the survey question. Of the 175 study participants, 63.4% reported positive attitudes (i.e., satisfied or very satisfied) towards their academic experiences at the U ($n = 111$), 29.1% reported neutral attitudes ($n = 51$), and 5.2% reported negative attitudes (i.e., unsatisfied or very unsatisfied) ($n = 9$).

These survey results were substantiated by participants' descriptions of their academic experiences at the U. In the interviews, most participants were satisfied with their academic experiences and performance. They reported that they were making

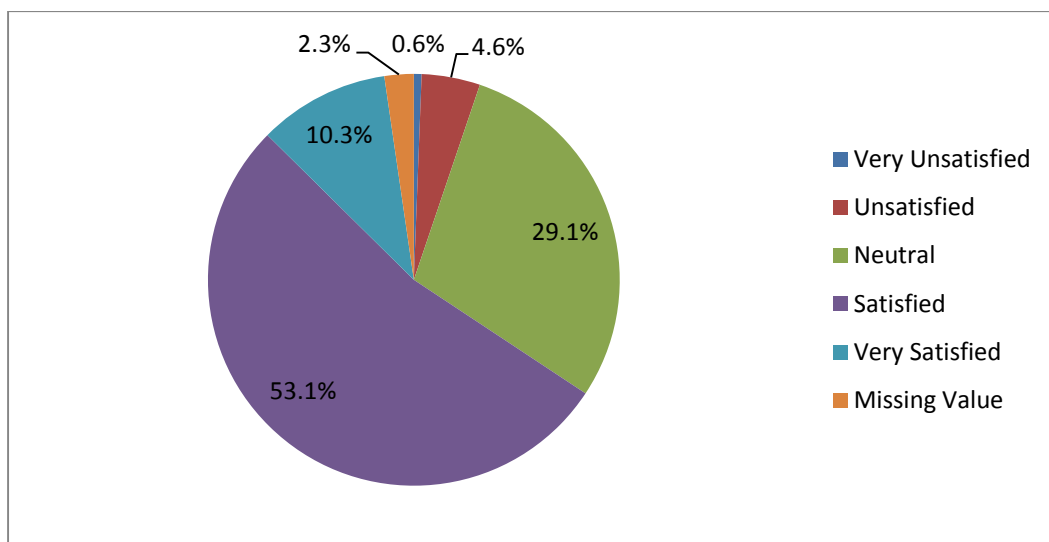


Figure 16. Participants' Satisfaction with Their Academic Experiences

academic progress every day and that they could feel the changes that had occurred within them. They also noted that as time went by, they became more confident in their academic abilities and their future academic plans. Guoqiang was one of these students: "Overall, I feel studying in the U.S. is really worth it. Not only have I learned a lot of knowledge, but I have also improved my English skills. More importantly, I have had a better understanding about my future career and my personal life." Guoqiang's statement was echoed by Yan, who had 5 years of college experience in China before coming to the U.S.:

Overall, I feel my academic experiences at the U are very rewarding. When I first came to the U.S., I felt the 5 years I spent on my degree in China was totally a waste of my time. I had really bad college experience at that time. I spent most of my time sleeping or hanging out with my friends. Once I arrived at the U, I promised myself that I would make the best out of my study abroad experience. So, I work really hard on every assignment and exam... So far I have been in the U.S. for less than a year, but I feel I have made more progress than what I would have made during a 2-year period in China.

However, some participants had mixed feelings about their academic experiences at the U. Some students were content with their academic performance but were not satisfied with their academic and social integration into the campus life. Some students compared their experience at the U with their friends' experience at other American universities and felt they had fallen too far behind. Still, some other students felt regretful for not making an effort to get the best out of their study abroad experience. Xiaohua described his level of satisfaction in the following way:

I am not very satisfied with my academic experiences at the U. Before I came to the U.S., I had great expectations about my overseas education. But so far, I have not lived up to those expectations. I do not know why, but I feel I am not very motivated to learn. Sometimes I cannot help comparing myself with my friends at other American universities. I feel they are doing much better than me. So, I am disappointed at myself. But on the other hand, I feel I am doing better now than last semester.

Additionally, some participants were not satisfied with their academic experiences at the U. These students either felt the progress they made during their first year at the U was not worth the tuition and fees they paid or worried about their academic performance and their chance of surviving the Global Pathways program. Cheng earned a 2.3 first-term GPA, and he was not happy about that: "I think my GPA could have been much higher if I studied a little bit harder. I want to change myself, but it is always easier said than done." Moreover, Jing had the following comments:

I am not satisfied with my learning experience at the U. I have let myself down. Like many other students, I always promise myself that I will study harder tomorrow. But then I just let tomorrow slip away. Among my friends, I think I have the lowest GPA. I feel terrible about that.

In short, most participants were satisfied with their first-year academic experiences, while some reported neutral or negative attitudes. In the next subsection, I

examine the academic challenges encountered by participants during their first year of college at the U.

Academic Challenges

I perceived cross-cultural learning as a challenging process. Participants also experienced difficulties at the U created by having to adjust to the new learning environment. In fact, many participants were candid about the challenges they encountered during their first year at the U. To some extent, I was surprised by their honesty and openness since I expected that the element of saving face in Chinese culture would make it difficult for participants to disclose their most private thoughts to an outsider. The codes that make up the academic challenges theme include language barrier, academic adjustment, academic dishonesty, and low achieving students.

Language barriers. The issue of language barriers was the most common and difficult problem faced by participants. Of the 26 students who participated in the interviews, the majority expressed concerns about their ability to communicate in English, including English listening, speaking, reading, and writing skills.

Listening was seen as a problem because many participants had difficulty fully understanding what their instructors/professors said in class. They had particular challenges following some large lecture classes. Qijia noted that his TOEFL score was much higher than the U's minimum admission requirement. Therefore, before departure for the U.S., he was confident that his English skills would be good enough for his overseas education. However, after arriving at the U, Qijia quickly realized that a high TOEFL score did not guarantee he would have no problem in American classrooms:

“This semester I have a course on the foundations of business thoughts, which covers a lot of theories. I have serious problem comprehending what the professor says in class.”

Hao also described his English listening problem:

Frankly speaking, English is the main problem I have while studying at the U. When I first arrived at the campus last semester, I could only understand approximately 40% of the class content in ESL 1040 and about 10% of the class content in ESL 1060. That really was a big blow to my confidence and self-esteem and got to me in ways that I had never really felt before. To be fair, English has never been my strength. I did go to an English training class in China, but its whole purpose was to get me ready for the International English Language Testing System (IELTS). It did not help me with my English communication skills.

In the interviews, many participants had a lot to say about History 1700, a course that provides an overview of American history from the colonial period to the present.

They reported that the course content was beyond their level of English competence.

According to Yuhai, “I feel terrible about this lecture course. I concentrate on the instructor, but I can only understand at most 30% of the class content.” Juan, who graduated from a high school in an English-speaking country, also noted:

This is a large lecture course, which many Chinese students find very challenging. As a result, many students choose not to go to class and just show up for the exams. As far as I am concerned, I can concentrate on the instructor for about half an hour. Unfortunately, the class is 80-minutes long. After about 30 minutes, I can only hear the instructor is still talking, but I have no clue what he is talking about.

Along with the challenges they had in understanding their instructors, participants faced challenges speaking in front of class. Many students were worried about their English pronunciation and ability to speak fluent English. Moreover, before coming to the U.S., Chinese undergraduates have been trained for more than a decade in an educational system where class participation is anything but the norm. Therefore, it is not surprising that many participants were not used to expressing themselves in class.

According to Hong, “many Chinese students are able to understand their instructors, but they have difficulty expressing their thoughts and ideas in class.” Ming also noted that some Chinese students’ English is really poor: “It seems to me that they are simply speaking ‘Chinglish,’ and even I have trouble understanding them.” Jing described her experience with a team presentation, “I wrote down what we need to say in the presentation, and told my teammate—another Chinese student—to spend some time practicing before class. But when we presented, my teammate simply read his part of the presentation word by word. I was really embarrassed.”

However, the interviews revealed that as time progressed, many students grew more confident in their English speaking skills. For example, Yan stated:

I feel learning English is a long process, and it takes a lot of practice every day. Compared with my English speaking skills last semester, I feel I speak much better English this semester. Of course, I still make a lot of grammatical errors. But I am not afraid of speaking English anymore. Interestingly, once I am not afraid of speaking English anymore, I begin to make real progress.

For many participants, a lack of English vocabulary made reading English textbooks and other materials difficult and time-consuming. They indicated that it usually took them much longer to read through study materials than their American counterparts. Some participants also reported that they encountered reading comprehension problems when taking exams. Guoqiang described his English language difficulties in the following way:

I am struggling with my English reading skills. Usually I have to read a study material several times in order to understand it. Therefore, this process can be really time-consuming for me. For example, we usually receive a 3-4 pages long experiment guide in each laboratory class. It may only take American students 10 to 30 minutes to read through it. But it usually takes me more than an hour to fully understand it.

Zhong had similar problem: “Some of my assignments can be several pages long, and they can give me a real headache. Sometimes I have to translate them into Chinese in order to understand them.” In addition, according to Jing, reading and understanding instructors’ PowerPoint slides can be a challenge:

For some students, it does not make any difference whether or not they go to class. For example, the instructors always put assignment requirements in PowerPoint slides. But some students even have difficulty reading and understanding those requirements, and they often have to ask me about them. I am speechless, and wish God will help them.

In my conversation with Rui, he mentioned two problems related to his English reading skills:

One problem I have is related to learn new knowledge and concepts using English. Since many English words are new to me, it can take me an awful long time to understand those knowledge and concepts. The other problem I have is related to take tests and exams. Since English is my second language, I always feel I do not have enough time to understand the questions and then answer them.

Furthermore, many participants were anxious about their ability to write in a way that would meet their instructors’ expectations. Some students were frustrated that even if they spent a lot of time on their paper or essay, their grades were still low. Guoqing admitted that he was not good at writing in Chinese, let alone in English: “It usually takes me several days to write a 3-4 pages long paper. The process is like squishing toothpaste, and it is really painful.” Han was worried about his grades in a writing class, “I have tried my best in this class, but my grade is still pretty low. I am afraid this class will bring down my term GPA.”

Academic adjustment. Adjusting to certain aspects of the American higher education system was another challenge encountered by study participants. Specifically, the areas in which participants were most likely to face difficulty in making adjustment

include participating in class discussions, maintaining classroom decorum and meeting classroom expectations, navigating the U's Canvas system, and getting used to relatively frequent assignments and examinations.

Many participants reported that they had difficulty participating in class activities, especially in large classes. Zhong admitted that he seldom asked questions in class:

“Frankly speaking, I am not used to asking questions in front of my classmates. Instead, I prefer to talk to professors after class if there is anything I do not really understand.”

Similarly, Guoqiang mentioned that he was not accustomed to asking questions or participating in class discussion: “As a matter of fact, Chinese students are not trained that way. From preschool to college, Chinese students have always been asked to sit quietly and listen to teachers. But unfortunately, that is not the way it works in the U.S.”

Xiaozhou claimed that he could not care less about saving face in American classrooms. However, he admitted that his class participation tended to be more active in a small class than in a big class: “somehow I feel it is hard to open my mouth in a big class.” Shuhui also noted that her participation in a math class, which had fewer than 30 students, was much more active than her participation in a chemistry class, which had more than 200 students. In response to my question “Why would Chinese students not participate in class activities?” Qi responded:

Many Chinese undergraduates do not realize it is necessary to participate in class activities. In their minds, all they need to do is to go to class, sit there quietly, and accept the instructor's word on all matters. These are the ways they are trained to do in the Chinese educational system. Therefore, for these students, sitting there quietly is participating in class activities.

However, several participants revealed that as time passed by, they grew more comfortable and performed better in American classrooms. For example, Jun mentioned that during the first semester at the U, he focused his attention on the instructors and

taking class notes instead of participating in class discussions because of limited English proficiency. He continued: “But I am doing much better this semester in terms of class participation, and I am not hesitant to raise my hand to answer questions anymore.” Juan also observed that many Chinese undergraduates did well in terms of class participation in their second term at the U. According to Juan, “many students simply did not want to open their mouth during their first term at the U. But they begin to like answering questions in class now.”

The interviews revealed that many Chinese undergraduates at the U had difficulty maintaining classroom decorum, including using electronic devices and speaking in Chinese in class despite explicit warnings not to do so. Yan mentioned a classroom conflict she witnessed between a Chinese undergraduate student and his instructor. According to Yan, the conflict was caused by a Chinese student using a cell phone in class. The student argued that he forgot his textbook and had to send text message asking his roommate to bring the textbook for him. However, the American instructor did not buy the argument and insisted to take away the student’s cell phone. Yan had mixed feelings about the conflict. On the one hand, she felt the instructor should have given the student a verbal warning before trying to take away his cell phone. On the other hand, she felt the instructor was right in maintaining acceptable standards of decorum among students.

Several participants mentioned that they were frustrated and embarrassed when Chinese students spoke Chinese in class. According to Xiaohua, several students in one of his classes always talked to each other in Chinese: “The instructor would tell them ‘No Chinese, please.’ They would say ‘Ok.’ But after a while, they continue to talk to each

other in Chinese.” Xiaohua felt sorry for the instructor. Yuhai felt embarrassed by such behaviors and pointed out that “many Chinese students, especially those who came to the U.S. immediately after graduation from high school, were spoiled by their family. To be honest, many Chinese undergraduates are self-centered and selfish.” Xiaozhou described these behaviors as a lack of respect for instructors/professors, but he also believed that to some degree the university itself created these problems and therefore should also be held accountable: “The entry requirements for the Global Pathways program are too low. As a result, many students who should not be here were accepted into the program.”

Moreover, I found it surprising and disturbing that some participants did not seem to understand why it was necessary for them to meet certain classroom expectations, including turning in assignments before due dates and submitting a doctor’s note to justify absence from class due to health reasons. In my conversation with Jing, she had the following to say about her experience at the U:

I feel some instructors are too strict. Students receive no grade if they turn in assignments late. They have to submit a doctor’s note to prove they are sick. I believe some students may miss classes because of having a cold or a fever. But they may not want to see a doctor. I do not like these rules or regulations at all. One time I missed a class because I did not feel well. But I did not feel it was necessary to go to see a doctor. However, the instructor took away 25 points from my grade. I tried to explain that I was not well, but the instructor insisted that I submit a note from the doctor’s office to prove it. I felt it was so unfair.

Like most first-year students, study participants were new to the U’s Canvas system. While many participants were excited about this new technology tool in the classroom, some participants complained that they were not appropriately introduced to the system and therefore had problems navigating through it, especially during their first semester. Qi said she missed a couple of assignments and one online test because she was not familiar with the Canvas system: “As a result, my grade for one class was negatively

affected.” Tingting had a similar experience with the Canvas system and pointed out that “it does not seem normal if a student did not miss any assignments or tests because of unfamiliarity with the Canvas system. Most students missed one or two assignments, and then learned their lessons.” Yuhai also struggled with the Canvas system:

Last semester I had a class requiring the students to use the Canvas system. The instructor did briefly talk about how to use the system, but I did not really get it. I even had problem locating the assignments in Canvas. Furthermore, I did not really understand the assignment requirements until it was too late. Not surprisingly, I did not pass the class.

The final area in which participants had difficulty making adjustments was having relatively frequent assignments and examinations. Although many participants believed that these assignments and examinations enhanced their learning experience at the U, some indicated that they had trouble keeping up with the fast pace of studying in American classrooms. Zhong noted:

A big difference between studying in the U.S. and studying in China is that students at American colleges and universities have more assignments, quizzes, tests, and exams. Students’ grades on every assignment and exam are counted toward their final grade. Therefore, I feel I am always under pressure to do well throughout the whole semester. I check the Canvas system and my email every day. As soon as I see a bad grade, I immediately go to see my instructor or teaching assistant, trying to figure out what has gone wrong and how to fix it.

Additionally, Juan suggested that Chinese undergraduates should adjust to the U.S. educational system: “They need to be aware that every assignment and exam counts at American universities. Therefore, they must pay close attention to their grades and avoid failing classes in their first semester.”

Academic dishonesty. Many participants indicated that academic cheating was pervasive among Chinese undergraduates at the U. Some participants even admitted that they engaged in acts of academic dishonesty. While acknowledging that cheating was an

immoral behavior, most participants felt that surviving the first year of college in the U.S. outweighed the ethical concerns.

Tingting observed that the majority of Chinese students in a large, introductory lecture course cheated on exams: “The course is really difficult for many Chinese students. Not only do they have difficulty following lectures, but they also have difficulty understanding the textbook. So, cheating seems to be the only way that they can pass the course.” Hong also observed that many Chinese first-year students at the U engaged in unethical behavior, and she blamed it on the bad habits they developed in China:

Academic dishonesty is a serious problem among Chinese undergraduates at the U. Many students copy others’ homework, use published work without proper citations, or cheat on tests and exams. Both low-achieving students and high-achieving students engage in these activities. Frankly speaking, academic cheating is not a new problem for Chinese students, and many of them may have been doing this since they were in middle or high school in China. Unlike Americans, most Chinese do not view academic cheating as a serious problem. In fact, some students even show off that they were not caught when they cheated on exams, and others openly invite their friends to cheat on exams together. These are really ridiculous.

Juan echoed Hong’s thoughts. She sensed that student cheating was rooted in the Chinese educational system which emphasizes students’ grades more than the quality of their learning. Juan also noted that many Chinese undergraduates lack motivation to study or do coursework, “all they want to do is to hang out with their friends and to be happy. They never really spend time studying. For these students, academic cheating may be a glimmer of hope to keep their overseas education dream alive.”

In my conversation with Yuhai, I asked him how he felt about academic cheating among Chinese undergraduates at the U. Suddenly, he became very emotional. After I assured him that everything he talked about would be kept confidential, he told me his own story:

I had an ESL class last semester. I did pretty well in class except for the final paper, which must be 10-12 pages long. It was the final week of the semester, and I had just taken two examinations. I felt I was too tired to write this long paper. So, I simply copied and pasted some contents from online sources and turned it in. Unfortunately, I was caught by the instructor, and I got an “E” for the class. I was upset about that for a while, and decided not to cheat anymore in the future. However, as people always say, bad habits die hard. In the beginning of this semester, I had a big assignment in another class, and somehow I decided to copy my friend’s work and turned it in. Once again, I was caught by the instructor, who not only gave me zero for the assignment but also warned me that he would fail me if I was caught cheating again. I was really scared and could not eat or sleep well for a week. But after a couple of months, I cheated again on another assignment in the same class, and was caught again by the instructor. He notified me in an email that he would fail me. I responded by asking for an opportunity to talk to him in person. But on second thought, I decided not to talk to him. I did engage in academic cheating. What can I say to my instructor?

Yuhai felt sorry for his behavior. He said there is no way that he would cheat again in college because cheating on assignments or exams is just not worth it. Looking back on his first year of college at the U, Yuhai felt he had gone through a lot and had the following to say:

Sometimes I cannot help thinking that Chinese students have been spoiled by their teachers back in China. It is true that Chinese students would be punished if caught cheating on assignments or exams. In fact, I received a lot of physical punishments from my teachers during my elementary, middle, and high school years. However, as bad or embarrassing as those punishments might be, they actually did not have any negative effects on students’ future. In other words, Chinese teachers would always give students a second opportunity. But things are different in the U.S. Suddenly, I feel I am afraid to make the same mistakes I used to make in China, and I begin to pay attention to the bad habits I have developed in the past. However, despite all these, I cannot solve my problems overnight.

Generally speaking, study participants had mixed opinions about academic dishonesty. Many students acknowledged it was morally wrong to cheat, but felt that surviving the first year of college outweighed ethical concerns. For Global Pathways students, to cheat or not to cheat was an even bigger question because it might determine

whether a student would successfully pass the program and move to the second year at the U or fail the program and go back to China. Additionally, some students noted that although they would never cheat, they understood why others would do so and they have no problem forgiving them. These students argued that academic cheating was also common among American students and international students from other countries. Furthermore, several participants noted that they are totally against academic dishonesty and they hope the university would take a zero-tolerance approach to the problem.

Wei admitted cheating on a final paper during his first semester at the U: “It was shameful of me to do that. However, many other students—both Chinese and American students—cheated on papers and exams, too. Moreover, I may risk not being able to pass the Global Pathways program if I choose not to cheat anymore.” Zhong also admitted cheating on exams: “I do not like general education courses at all, and sometimes I did cheat on exams in those classes.” In contrast, Qijia expressed his opinions on academic dishonesty in the following way:

I have never cheated on exams. However, I do understand why others would choose to cheat, and I think I can tolerate these behaviors. After all, no one wants to fail a class. It costs in terms of money and efforts to re-take a class. Besides, some students may not be able to pass the Global Pathways program if they fail too many classes.

Cong had similar attitudes towards academic dishonesty among Chinese students: “I do not think cheating is a serious problem. American students also cheat on exams. When I was taking a math exam last semester, an American student copied my answers. That was cheating, too. But I do not care.”

Tao noted that academic cheating among Chinese undergraduates at the U had been on the rise, and he hoped that the university would take a strong stance against it. Tao believed that “academic dishonesty should result in disciplinary action and possible

dismissal from the university. Otherwise, academic cheating will become even more pervasive and expected.” While Tao’s statement makes sense, the U and faculty have responsibility to do more to discourage and prevent students from engaging in academic cheating than just punish them afterwards.

Low achieving students. In the study, I tried to gain a better understanding of low-achieving Chinese undergraduates at the U. Not only did I make a conscious effort to reach out to these students, but I also asked participants about their perception of low-achieving students. As a result, a large amount of data on low-achieving students was gathered and then processed. Overall, the qualitative data seemed to support that a high proportion of Chinese first-year students at the U were low achieving or at risk for failure. The data also indicated that the relatively lenient admission standards for the Global Pathways students might be at the root of the problem.

Several participants noted that many Chinese undergraduates were not doing well academically during their first year at the U. Hong sensed there were two types of Chinese undergraduates at the U: high-achieving students and low-achieving students. According to Hong, “Each group accounts for roughly 50% of Chinese first-year students, and they are like the two extremes of a wide spectrum.” Juan divided Chinese undergraduates into three groups based on their study efforts: the students who were strongly committed to their studies, the students who could complete coursework on time but were not highly motivated to learn, and the students who were not committed to their studies at all. According to Juan, “Overall, approximately 50% of Chinese undergraduates were high-achieving students, while the other 50% were low-achieving students.” Additionally, Tao figured that low-achieving students might account for more

than 50% of Chinese first-year students at the U: “There were originally 12 pre-electrical engineering students in our department. Many of these students have gradually changed their majors, and there are only three or four students left in our department now.”

Based on their observations and personal experiences, many participants tried to profile low-achieving Chinese undergraduates. Qijia felt many low-achieving students are relatively young: “They came to study in the U.S. immediately after graduation from high school in China. Some students are simply too young to take ownership of their study abroad experience.” Ying figured that many of these students belong to the so-called “the second generation of rich” or “the second generation of government officials,” who are the sons and daughters of the wealthy Chinese or China’s political elite. According to Ying, “These students can easily land a decent job in China because of their parents’ influences. Or they can simply work for their family business. Therefore, many of these students do not have any motivation or incentive to study hard in the U.S.” Xiaohua figured that many low-achieving students were not well prepared for studying in the U.S.: “Their performance on the Gaokao was so poor that they could not even attend a third-tier college or university in China.” In addition, Qi mentioned that for some students, “pursuing overseas education was their parents’ idea instead of their own preference.”

Wei described low achieving students in the following manner:

It seems to me there are two types of low-achieving students: introverts and extroverts. The students who have an introverted style spend most of their time playing computer games. As an extreme example, a student I know well once spent many hours playing computer games. Finally he got really tired and slept for more than 30 hours straight. His roommate was really worried about him and had to check breathing to make sure he was still alive. Many of these students usually play computer games till midnight, and then start to work on their assignments until 4:00-5:00 o’clock in the early morning. They sleep for a while, and then go to class. But once they are back from school, they begin to play computer games

again. They live like this day after day. In contrast, the students who have an extroverted style spend most of their time hanging out with friends. Many of these students drink heavily on weekends and spend a lot of time at shopping malls or restaurants. I once lived with two Chinese students who had pretty low GPAs. But their lives were crazy, and they would get drunk almost every weekend. In China, teachers and parents usually closely monitor students' academic performance. But that is not the case in the U.S. Therefore, many Chinese undergraduates are simply wasting their time at the U.

The interviews disclosed several reasons that may explain why many Chinese students do not perform well academically. First, some students lacked appropriate academic preparation for studying in the U.S. Cheng admitted that he never did well in school and that he dropped out of high school after freshman year: "I missed too much school work in China, and now I have difficulty recovering from that." Jing also admitted that she did not like school and wasted her senior year of high school by piddling around. Additionally, Tingting told the story about one of her friends:

My friend graduated from a key high school in southwestern China. But I figured he did not learn anything there. Last semester he had to take Math 1010, which in my opinion is really easy. But he had a hard time in class. I told him to read through the textbook, but he said it was too hard to understand the textbook because it is written in English. In my opinion, his main problem is that he missed too much school work in China. So, I think he is not academically prepared to do college-level work in the U.S.

In the interviews, several students reached the same conclusion about low achieving students. That is, if a student cannot get into a third-tier college or university in China, it is very unlikely that the student would succeed at the U. Tao made the following comments on the subject:

To be honest, if a student's performance on the Gaokao is not good enough to attend a third-tier university in China, the student should think twice before deciding to study in America. I understand that many Chinese parents want their children to be able to receive the best education in the world. However, if a student does not do well in a Chinese high school, it is unrealistic to expect that the student can suddenly become a high achiever at an American university. That is almost impossible. Of course, I

am not saying that every student who cannot go to a third-tier university in China should not come to study in the U.S. If a student has a strong motivation or desire to do well, he or she is likely to achieve academic success in the U.S. However, if a student has no motivation to learn and is not academically well prepared, the student has little chance of succeeding in a U.S. university.

Additionally, some students lacked good study skills and study habits. Tingting figured that low-achieving students can be further divided into two subgroups: those who do not like studying and those who like studying but lack effective study skills. She sensed some Chinese students were spoiled by their parents and teachers and had never learned good study skills. Juan also noted that “many Chinese students lack proper study skills. On top of that, they have to adjust to a totally different educational system. As a result, it is not surprising that these students face huge challenges in the U.S.”

The interviews revealed that many participants particularly lacked good time management skills. Lei claimed that he always stayed up late and had difficulty getting up for a 12:00pm class. Cong admitted that due to the time difference between the U.S. and China, she usually stayed up until 4:00 or 5:00 in the morning so that she could chat online with her friends in China. Hao mentioned that the new student orientation program at the U covered a wide range of study skills, including time management skills: “However, most Chinese students do not really pay attention to these trainings because they feel they are not high school students anymore and they do not need someone else to tell them what to do and what not to do.”

Moreover, some Chinese students lacked academic motivation and self-control skills. Hao admitted that he failed all four classes he took the previous semester. Although he initially tried to blame it on his instructors, he acknowledged later that he would take responsibility for his own failures: “My academic failure was mainly caused

by myself. My English was ok, and my academic background was also ok. I think I just did not put enough efforts into my study.” Yuhai, who earned a 1.6 first-term GPA, described his daily life in the following way:

I usually wake up between 10:00am and noon on weekends. After eating something, I usually play computer games, watch movies online, or do some exercise. On Mondays, Wednesdays, and Fridays, I have an information system class and a music class. But I always skip both classes. The information system class is not really hard, but I have difficulty following the instructor. On Tuesdays and Thursdays, I have a history class and an ESL class. I do not go to the history class because it is large and many other students do not attend, either. I do go to the ESL class every time because the instructor takes attendance. Overall, I spend most of my time playing computer games and relatively little time studying.

Tingting also sensed that some Chinese students were not motivated to study: “They have a lot of free time every day. But they just do not want to spend any time studying unless they have a test or an exam.” Moreover, Jing mentioned that some Chinese undergraduates lack self-motivation and self-control skills: “In China, their teachers and parents closely monitor their academic progress. But once they are in the U.S., no one keeps an eye on them anymore, and they feel they are finally free and can do whatever they want to do.”

I found it surprising that some participants did not take their studies seriously, including failing a class. Instead, they often claimed that they could simply retake the class in a later semester. Juan told a story about a Chinese student who failed three classes during her first semester at the U but did not really care about the result: “She thought she could make up for those failures later. But I am really concerned about her chance of surviving the Global Pathways program.”

In summary, study participants faced many challenges during their first year of college at the U. While some of these challenges (e.g., limited English proficiency and

unfamiliarity with American education system and academic environment) have been well documented by the previous studies, other challenges (e.g., academic dishonesty and low achieving students) are new and unexpected. These study results confirm that participants' academic experiences were different from those of previous generations of PRC students studying in the U.S. and call for more attention from higher education researchers and practitioners.

Coping Strategies

Knowing that cross-cultural learning is a complex and difficult process, I explored the strategies participants used to cope with their academic challenges. The students noted that they used a variety of techniques, ranging from developing good study skills and habits to forming a support network. While most of these strategies were positive, some did appear to be unproductive or negative.

Choosing the right courses was described by many participants as important. They noted that Chinese first-year students should avoid taking high-level courses, particularly those that require students to have high proficiency in the English language. They also emphasized that it was important to maintain balance between taking major courses and non-major courses. Rui sensed that some students were under academic pressure because they took too many major courses. On the other hand, he voiced concerns about some students wasting time and losing interest in their studies because they took too many non-major courses. Lei talked about his coping strategies in the following manner:

I have learned my lessons the hard way. Last semester I took a general education course, but it turned out to be too difficult for me. This semester I have to take a fine arts course. I initially picked a film course. During the first class, we were asked to watch a movie and then discuss it. I was

totally lost. So, I dropped the course immediately after the class and decided to take a chemistry course. I plan to choose another relatively easy course next semester to fulfill my fine arts course requirement. Based on my own experiences, I think Chinese first-year students should pay close attention to the courses they plan to take and avoid taking high-level courses.

Choosing student-friendly instructors/professors was another strategy articulated by several participants. They complained about the differences in homework load, assessment procedures, and expectations of the instructors/professors in different class sections. They felt their grades would have been very different if they had student-friendly instructors. In my interview with Han, he admitted that he failed two of the four courses he took in the first semester, but he was confident that he would be able to successfully pass the Global Pathways program and move on to the second year at the U. According to Han, "I need to take my study more seriously in the future. More importantly, I need to choose good instructors." Yuhai made similar comments when talking about his strategies to deal with academic challenges:

American instructors are very different from each other in terms of homework load and assessment procedures. As a result, a student's grade in a class very much depends on what kind of instructor he or she will have. I have learned my lessons the hard way, and I will pay close attention to the instructors when I decide which classes to take in the future. I will try to learn as much about the instructor as possible before I decide to take a class, and I will drop a class without any hesitation if I feel the instructor is not student-friendly during the first week.

Many participants emphasized the importance of developing self-motivation and self-control skills. They noted that with the increase in personal freedom in American classrooms, it was crucial for Chinese undergraduates to take responsibility for their own learning. Lei mentioned that his parents had a conversation with him before he left for the U.S. They told him that no one else would be able to help him if he would not take ownership of his own learning: "Looking back on the first two semesters, I feel self-

motivation and self-control are the two most important skills Chinese students should have while studying in the U.S. I think these skills are even more important to Chinese students than their previous educational background.” Hong made a similar comment: “In the U.S., Chinese students can no longer count on their parents or teachers to monitor their academic progress and to motivate them. They have to learn to take ownership of their studies.”

Developing good study skills and habits was another strategy many participants found useful and valuable for dealing with their academic challenges. Rui mentioned that academics took first priority in his daily life, “I always make sure that I complete all assignments and understand all the materials covered in the classes before I hang out with my friends. Otherwise, I do not feel I can really enjoy other activities.” Ying emphasized the importance of developing critical thinking skills and devoting an appropriate amount of time and effort to completing college coursework:

I am not a very diligent student. But I do think I have pretty good comprehension and thinking skills. In addition, I take class assignments seriously. I think students can learn a lot from working on class assignments. Whenever I have difficulty solving assignment problems, I always review my lecture notes or textbook carefully. Furthermore, I have improved my summarizing skills since I came to the U.S. I always take notes whenever I have difficulty solving problems or come across some important formulas. So far I have accumulated a thick stack of study notes.

Shuhui noted that she studied hard for every quiz, test, and exam: “This is very different from studying in China, where students only need to study for final examination. Chinese students must adjust to the new learning environment quickly.”

Forming a support network was also emphasized by many participants. Xiaohua admitted that chemistry is not his strength: “I decided to take my chemistry class with

other Chinese students so that we can help each other.” Jing mentioned that her English skills were really poor when she first arrived at the U:

I had to take Math 1090 in the first semester. It was really hard. I could hardly understand anything in class. I could not understand the textbook, either. Fortunately, there were two other Chinese students in the class. They were not Global Pathways students, and they were doing much better than me. So, I studied with them every day during the first 3 months. After that, I became much more comfortable with the new learning environment.

Besides getting support from their fellow Chinese students, several participants noted that communicating with their parents was very important. Lan felt she could use her parents’ advice: “There were times when I could not handle some problems myself and had to consult with my parents. They have more real-life experiences than me, and they usually gave me good advice. So, I think it is important for Chinese students to communicate with their parents.” Additionally, some students mentioned that religion could be another source of support. For example, Jing mentioned that she went to church regularly although she had not been baptized: “Every time I come back from church, I feel I have gained peace of mind. I hope more Chinese students can go to church and benefit from doing so.”

Moreover, several students noted that choosing a good living environment could contribute to their academic success. However, I found it interesting that students’ definitions of “good living environment” were very different. While some students felt they missed out because they did not live on campus, others were excited about the independence they gained from living off campus. In my conversation with Xiaohua, he told me he moved off campus after the first semester: “I feel I am more relaxed, and I can enjoy more activities.” Jun also moved out of his university dorm after living there for just one semester, and he blamed the move on his American roommate: “I like studying

in my room, but my roommate always invited his friends to come to drink, sing, or dance every weekend. I could not stand that.” On the other hand, several students reported serious problems with living off campus. Cheng mentioned that he wanted to learn more about American society when he decided to move off campus: “However, I now realize that I live too far from campus, and I do not feel like I am a student anymore.” Rui also talked about one of his friends’ experience with living off-campus: “His apartment is quite far away from the campus. Gradually, he lost contact with his friends and his motivation to study. Now, he spends most of his time playing computer games in his apartment.”

In summary, although the majority of participants were satisfied with their academic experiences at the U, many faced a range of challenges during their first year of college. Some students particularly lacked appropriate academic preparation, good study skills, achievement motivation, and self-control skills necessary to succeed at American colleges and universities. In the next section, quantitative methods are used to further examine Chinese undergraduates’ academic achievement at the U.

First-Year Academic Achievement

The statistical analyses discussed in this section address the third set of research questions: “How do Chinese international undergraduate students perform academically during their first year of college at the U? Are they significantly different from their American counterparts and other international undergraduate students in terms of attempted credit hours, earned credit hours, cumulative grade point average (GPA), and first- to second-year persistence rates?” The analyses were performed on data retrieved

from the Utah System of Higher Education database. Academic records of Chinese undergraduates enrolled at the U for the first time in the fall semester of 2012 ($n = 267$) were analyzed to address the first part of the research question, while academic records of American ($n = 4,654$) and other international ($n = 144$) first-year students were examined to gain insight into the second part of the research question. Findings in this section are further organized into: (1) Chinese undergraduates' academic achievement, (2) comparison of academic achievement between Chinese and American undergraduates, and (3) comparison of academic achievement between Chinese and other international undergraduates.

Chinese Undergraduates' Academic Achievement

Results of statistical analyses indicated that Chinese undergraduates in the study made gains in academic achievement during their first year of college at the U. As presented in Table 7, Chinese first-year students on average attempted 25.8 credit hours and earned 22.9 credit hours. The discrepancy between attempted credit hours and earned credits hours indicated that Chinese undergraduates on average failed almost three attempted credit hours during their first year of college. Their cumulative first-year college GPA averaged 2.9, which is almost the same as their average first-term GPA (i.e., 2.8). In addition, 71.9% of Chinese first-year students continued to enroll at the U in the fall semester of 2013.

Independent sample *t*-tests and chi-square tests were conducted to compare the differences in academic achievement among Chinese first-year students in relation to

Table 7.

Chinese First-Year Students' Academic Achievement

Variables	<i>M</i>	<i>SD</i>
Attempted credit hours in the first fall semester	12.6	1.4
Attempted credit hours in the first spring semester	13.3	1.6
Cumulative credit hours attempted in the first year	25.8	2.5
Earned credit hours in the first fall semester	11.5	2.8
Earned credit hours in the first spring semester	11.5	3.4
Cumulative credit hours earned in the first year	22.9	5.4
Grade point average in the first fall semester	2.8	1.0
Cumulative grade point average in the first year	2.9	0.8
	<i>n</i>	<i>%</i>
First- to second-year persistence rate	192	71.9

gender and registration status. As shown in Table 8, female students outperformed their male counterparts in all four measures of academic achievement examined in this study. These mean scores were all significantly different at the .05 level or better. Specifically, female students accumulated 2.8 more credit hours than male students, and earned a GPA that was 0.5 points higher than that of their male counterparts. The difference in persistence rate between the two groups of students was 20.1%, with the females more likely to reenroll at the U in the second academic year than the males. The males also showed a larger discrepancy between attempted credit hours and earned credit hours than the females (3.7 vs. 1.6). Similarly, new transfer students did better than first-time freshmen in every measure of academic achievement (see Table 8). All of the mean scores were also significantly different. However, the differences in earned credit hours, cumulative GPA, and persistence rate between first-time freshmen and new transfer

Table 8.

Differences in Academic Achievement among Chinese First-Year Students in relation to Gender and Registration Status

	Attempted Credit Hours			Earned Credit Hours			Cumulative GPA			Persistence Rate	
	<i>M</i>	<i>SD</i>	<i>t</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>M</i>	<i>SD</i>	<i>t</i>	%	χ^2
Gender											
Male	25.5	2.6	2.17*	21.8	5.6	4.09****	2.7	0.8	5.25****	64.2%	12.57****
Female	26.2	2.3		24.6	4.6		3.2	0.8		84.3%	
Registration Status											
Freshmen	25.5	2.2	2.88**	22.3	5.4	3.01**	2.8	0.9	3.06**	67.7%	6.37*
Transfers	26.5	3.2		24.5	5.3		3.1	0.8		83.3%	

* $p < .05$. ** $p < .01$. **** $p < .001$

students were relatively small when compared with those differences between the males and the females, respectively.

Independent sample *t*-tests and chi-square tests were also performed to examine the differences in academic achievement among Chinese first-year students in relation to admission type. As shown in Table 9, academic achievement of both US-Sino Pathway (USPP) students and regularly admitted students was significantly higher than that of Global Pathways students. The differences in earned credit hours and persistence rate between USPP students and Global Pathways students were particularly striking in that USPP students on average accumulated 4.5 more credit hours than Global Pathways students and that their persistence rate was 34% higher than that of Global Pathways students. On the other hand, although USPP students attempted and earned more credit

Table 9.

Differences in Academic Achievement among Chinese First-Year Students in relation to Admission Type

	Global Pathways		Regular Admission		US-Sino Pathway	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Attempted credits	25.1 _{a,b}	1.9	27.0 _a	2.9	28.4 _b	2.7
Earned credits	21.8 _{a,b}	5.1	24.7 _a	5.9	26.3 _b	4.0
Cumulative GPA	2.7 _{a,b}	0.8	3.2 _a	0.9	3.2 _b	0.6
	Global Pathways		Regular Admission		US-Sino Pathway	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Persistence rate	112	61.5 _{a,b}	59	93.7 _a	21	95.5 _b

Note. Means and percentages in a row sharing subscripts are significantly different from each other. For all measures, higher means or percentages indicate higher scores or rates.

hours and were more likely to re-enroll at the U in the second academic year than regularly admitted students, none of these differences was statistically significant.

Comparison between Chinese and American First-Year Students

Overall, Chinese and American first-year students attained similar levels of academic achievement during their first year of college at the U. As shown in Table 10, Chinese students ($M = 25.8$, $SD = 2.5$) attempted significantly more credit hours than their American counterparts ($M = 23.7$, $SD = 7.0$), $t(4574) = 4.95$, $p < 0.0001$. Chinese undergraduates ($M = 22.9$, $SD = 5.4$) also earned significantly more credit hours than American students ($M = 21.6$, $SD = 8.3$), $t(4574) = 2.47$, $p = 0.0137$. However, despite these efforts, Chinese students ($M = 2.9$, $SD = 0.8$) reported slightly lower cumulative first-year GPAs than American students ($M = 3.0$, $SD = 0.9$). This difference was not statistically significant, $t(4574) = -1.94$, $p = 0.0529$. Additionally, the difference in first- to second-year persistence rate between the two groups of students was not statistically significant, either, $\chi^2(1) = 0.1239$, $p > 0.05$.

A comparison between Chinese and American first-year male students found mixed results on their levels of academic achievement (see Table 10). While Chinese male students attempted significantly more credit hours than their American male counterparts, their cumulative first-year college GPA and first- to second-year persistence rate were significantly lower than those of American male students. Moreover, the difference in earned credit hours between the two groups of students was not statistically significant. In contrast, a comparison between Chinese and American first-year female students revealed that Chinese female students outperformed their American female

Table 10.

Differences in Academic Achievement between Chinese and American First-Year Students

	Attempted Credit Hours			Earned Credit Hours			Cumulative GPA			Persistence Rate	
	<i>M</i>	<i>SD</i>	<i>t</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>M</i>	<i>SD</i>	<i>t</i>	%	χ^2
All											
Chinese	25.8	2.5	4.95***	22.9	5.4	2.47*	2.9	0.8	-1.94	71.9%	0.12
American	23.7	7.0		21.6	8.3		3.0	0.9		72.9%	
Male											
Chinese	25.5	2.6	3.99***	21.8	5.6	0.98	2.7	0.8	-3.58***	64.2%	3.99*
American	23.3	7.0		21.2	8.3		2.9	0.9		71.5%	
Female											
Chinese	26.2	2.3	3.14**	24.6	4.6	2.97**	3.2	0.8	1.7	84.3%	5.00*
American	24.0	7.0		22.1	8.3		3.0	0.9		74.5%	
Freshmen											
Chinese	25.5	2.2	1.01	22.3	5.4	-0.97	2.8	0.9	-2.35*	67.7%	0.18
American	25.1	6.3		22.9	8.1		2.9	1.0		69.1%	
Transfers											
Chinese	26.5	3.2	5.45***	24.5	5.3	4.69***	3.1	0.8	0.9	83.3%	1.01
American	21.7	7.4		19.9	8.3		3.0	0.9		78.4%	

* $p < .05$. ** $p < .01$. *** $p < .001$

counterparts on all of the four measures of academic achievement (see Table 10). All these differences were statistically significant except for the one in cumulative first-year college GPA.

Among first-time freshmen, the academic achievement levels of Chinese students were very similar to those of American students (see Table 10). Chinese first-time freshmen attempted more credit hours, earned fewer credit hours, and were less likely to return to the U in the second academic year than American first-time freshmen. However, these differences were not statistically significant. The only significant difference between the two groups of students was their cumulative first-year college GPAs, with American first-time freshmen ($M = 2.9$, $SD = 1.0$) doing slightly better than their Chinese counterparts ($M = 2.8$, $SD = 0.9$), $t(2687) = -2.35$, $p = 0.0186$.

In contrast, a comparison between Chinese and American new transfer students found that Chinese new transfer students not only attempted but also earned significantly more credit hours than their American counterparts, with the difference being 4.8 credit hours and 4.6 credit hours, respectively (see Table 10). Chinese new transfer students also had a higher first-year college GPA and were more likely to persist to the second fall semester at the U than their American counterparts, but these differences were not statistically significant.

Comparison between Chinese and Other International Students

Results of statistical analyses indicated that other international first-year students outperformed their Chinese counterparts in all of the four measures of academic achievement examined in the study. As Table 11 indicates, other international students

Table 11. *Differences in Academic Achievement between Chinese and Other International First-Year Students*

	Attempted Credit Hours			Earned Credit Hours			Cumulative GPA			Persistence Rate	
	<i>M</i>	<i>SD</i>	<i>t</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>M</i>	<i>SD</i>	<i>t</i>	%	χ^2
All											
Chinese	25.8	2.5		22.9	5.4		2.9	0.8		71.9%	
International	26.9	4.1	-3.33**	24.4	5.9	-2.70**	3.1	0.8	-2.54*	82.6%	5.85*
Male											
Chinese	25.5	2.6		21.8	5.6		2.7	0.8		64.2%	
International	26.9	4.4	-3.19**	24.2	6.4	-2.99**	3.0	0.9	-3.12**	82.2%	9.07**
Female											
Chinese	26.2	2.3		24.6	4.6		3.2	0.8		84.3%	
International	26.8	3.6	-1.23	24.9	5.2	-0.47	3.2	0.7	-0.12	83.3%	0.03
Freshmen											
Chinese	25.5	2.2		22.3	5.4		2.8	0.9		67.7%	
International	27.1	3.4	-4.79***	24.7	5.4	-3.53***	3.2	0.8	-3.66***	84.0%	8.60**
Transfers											
Chinese	26.5	3.2		24.5	5.3		3.1	0.8		83.3%	
International	26.4	5.2	0.11	24.1	6.9	0.41	3.0	0.8	1.16	80.0%	0.22
Global Pathways Students											
Chinese	25.1	1.9		21.8	5.1		2.7	0.8		61.5%	
International	26.0	1.8	-2.63**	24.2	3.1	-2.56*	3.2	0.6	-3.01**	80.7%	4.21*
Regularly Admitted Students											
Chinese	27.0	2.9		24.7	5.9		3.2	0.9		93.7%	
International	27.1	4.5	-0.18	24.5	6.5	0.20	3.1	0.9	0.69	83.2%	3.90*

* $p < .05$. ** $p < .01$. *** $p < .001$.

($M = 26.9$, $SD = 4.1$) attempted significantly more credit hours than Chinese students ($M = 25.8$, $SD = 2.5$), $t(409) = 3.33$, $p < 0.001$. They ($M = 24.4$, $SD = 5.9$) also successfully completed significantly more credit hours than Chinese students ($M = 22.9$, $SD = 5.4$), $t(409) = 2.7$, $p = 0.0071$. Their cumulative first-year college GPA ($M = 3.1$, $SD = 0.8$) was significantly higher than that of Chinese students ($M = 2.9$, $SD = 0.8$), $t(409) = 2.54$, $p = 0.0116$. In addition, other international students were more likely to continue into their second year at the U than Chinese students, $\chi^2(1, N= 409) = 5.8486$, $p = 0.0156$.

The differences in academic achievement between Chinese and other international students became even larger when only male students from the two groups were compared (see Table 11), and all the differences were statistically significant at the .05 level or better. For example, other international male students accumulated 2.4 more credit hours than Chinese male students, and their first- to second-year persistence rate was 18% higher than that of their Chinese counterparts. However, when only female students from the two groups were compared, the differences in academic achievement between Chinese and other international students disappeared or became statistically insignificant. As shown in Table 11, other international female students still attempted and earned slightly more credit hours during their first year at the U than Chinese female students, but these differences were not statistically significant. On the other hand, Chinese female students were more likely to reenroll at the U in the second fall semester than other international female students, but the difference was not statistically significant, either. Additionally, the cumulative first-year collage GPAs for the two groups of students were virtually tied at 3.2.

A comparison between Chinese and other international first-time freshmen showed similar patterns to those seen between all Chinese and international students (see Table 11). That is, for all four measures of academic achievement, Chinese first-time freshmen lag significantly behind other international first-time freshmen. However, a comparison between Chinese and other international new transfer students showed that Chinese new transfer students exceeded their international counterparts in every measure of academic achievement (see Table 11). However, none of these differences was statistically significant.

Finally, academic achievement levels of Chinese and other international students were compared in relation to admission types. As Table 11 indicates, other international Global Pathways students surpassed Chinese Global Pathways students in all four measures of academic achievement. For example, other international Global Pathways students ($M = 3.2$, $SD = 0.6$) reported significantly higher cumulative first-year college GPA than Chinese Global Pathways students ($M = 2.7$, $SD = 0.8$), $t(211) = -3.01$, $p = 0.0029$; other international Global Pathways students were also more likely to persist to the second year of college than Chinese Global Pathways students, $\chi^2(1, N = 211) = 4.2136$, $p = 0.0401$. In contrast, among regularly admitted students, Chinese students performed at the same levels as other international students in terms of attempted credit hours, earned credit hours, and cumulative GPA. Additionally, regularly admitted Chinese students were more likely to persist to the second year of college than their international counterparts, $\chi^2(1, N = 174) = 3.8993$, $p = 0.0483$.

In summary, Chinese first-year students made some academic progress during their first year of college at the U. They also attained similar levels of academic

achievement to their American counterparts, but underperformed on all four measures of academic achievement when compared with other international students. In the next section, the factors that affect Chinese undergraduates' academic achievement at the U are investigated.

Predicting Participants' Academic Achievement

The regression analyses discussed in this section address the final research question: "What factors predict Chinese international undergraduate students' cumulative first-year college GPA and first- to second-year persistence at the U?" The analyses were performed on demographic data collected through survey questionnaires in the first phase of data collection and academic achievement data collected through the USHE database in the third phase of data collection. As noted previously, 175 Chinese first-year students took part in the survey, and they accounted for two thirds of Chinese undergraduates enrolled at the U for the first time in the Fall Semester of 2012 ($n = 267$). These 175 students were tracked through their first year of college. Based on the two sources of data, an ordinary least squares regression model was developed to predict participants' cumulative first-year college GPA, and a logistic regression model was built to predict their first- to second-year persistence. Mean values of cumulative first-year college GPA and frequencies of persistence for predictor variables are summarized in Table 12.

First-Year College GPA

Table 13 reports the results of ordinary least squares regression analysis for predicting participants' cumulative first-year college GPA. As the R^2 suggested, 25% of

Table 12.

Mean Values of GPA and Frequencies of Persistence for Predictor Variables

Variables	1st-Year Cumulative GPA		1st- to 2nd-Year Persistence	
	<i>M</i>	<i>SD</i>	<i>n</i>	%
Gender				
Male	2.7	0.8	74	64.9
Female	3.0	0.8	49	80.3
Registration status				
First-time freshmen	2.8	0.8	92	67.2
New-transfer students	2.9	0.9	31	81.6
High school class rank				
<= 50%	2.6	0.7	14	53.9
51-80%	2.7	0.9	68	68.0
81-100%	3.1	0.7	41	83.7
IELTS				
<= 5.0	2.7	0.8	92	68.2
>= 5.5	3.1	0.7	23	71.9
Initiation of study-abroad idea				
Others	2.7	0.8	74	67.3
Self	3.0	0.7	49	75.4
Student-faculty interaction				
<= one time per week	2.8	0.8	88	72.1
>= two times per week	3.0	0.7	35	67.3
Peer interaction				
<= one time per week	2.9	0.9	78	75.0
>= two times per week	2.7	0.7	44	64.7
Absence from class				
0 time	3.1	0.7	54	87.1
1-3 times	2.6	0.8	57	61.3
>= 4 times	2.5	1.1	11	68.8

Table 13.

Regression Analysis Predicting Participants' First-Year GPA

Variable	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Gender				
Male	Reference			
Female	0.3167	0.1259	2.52	0.0129
Registration status				
First-time freshmen	Reference			
New-transfer students	0.2320	0.1426	1.63	0.1059
High school class rank				
<= 50%	Reference			
51-80%	0.1879	0.1684	1.12	0.2662
81-100%	0.4953	0.1898	2.61	0.0100
IELTS				
<= 5.0	Reference			
>= 5.5	0.3378	0.1478	2.29	0.0237
Initiation of study-abroad idea				
Others	Reference			
Self	0.2833	0.1188	2.38	0.0183
Student-faculty interaction				
<= one time per week	Reference			
>= two times per week	0.1967	0.1320	1.49	0.1382
Peer interaction				
<= one time per week	Reference			
>= two times per week	-0.2217	0.1237	-1.79	0.0752
Absence from class				
>= 4 times	Reference			
1-3 times	0.3564	0.2152	1.66	0.0997
0 times	0.6593	0.2210	2.98	0.0033

Note. $R^2 = 0.25$ ($N = 162$, $p < 0.0001$).

variance in cumulative first-year college GPA was explained by the predictor variables considered in the model, indicating that the regression model fits the data reasonably well. The results showed that cumulative first-year college GPA was significantly associated with gender, high school class rank, English language proficiency (i.e., IELTS), the initiation of the idea to study abroad, and absence from class. The coefficient on gender was 0.32, indicating that holding all the other variables constant, female participants had a cumulative first-year college GPA approximately 0.32 points higher on a 4-point scale than male participants. The coefficient on English language proficiency was 0.34, meaning that participants with an IELTS score greater than or equal to 5.5 earned a cumulative first-year college GPA approximately 0.34 points higher than those with an IELTS score lower than or equal to 5.0 when holding all the other variables constant. The initiation of the idea to study abroad was shown to be another significant predictor, indicating that controlling for the other variables, the students who initiated the idea of studying abroad themselves had a first-year college GPA approximately .28 points higher than the students whose parents or someone else initiated the idea. Interestingly, there was a significant difference in cumulative first-year college GPA between the students who were ranked among the top 20% in their high school class and those who were ranked among the bottom 50% in their high school class, but there was not a significant difference in cumulative first-year college GPA between the students who were ranked among the top 20% and those ranked among 51-80% in their high school class. The coefficient on the top 20% of high school class rank was 0.47, indicating that holding all the other variables constant, the students who were ranked among the top 20% in their high school class had a first-year college GPA approximately

0.47 points higher than the students ranked among the bottom 50% in their high school class. Similarly, there was a significant difference in cumulative first-year college GPA between students who were absent from class greater than or equal to four times and students who were never absent from class during their first semester at the U, but there was not a significant difference in cumulative first-year college GPA between the students who were absent from class greater than or equal to four times and those who were absent from class for one, two, or three times. The coefficient on absence from class for zero times was 0.64, indicating that controlling for the other variables, the students who were never absent from class had a first-year college GPA approximately 0.64 points higher than those who were absent from class greater than or equal to four times during their first semester at the U. Compared with gender, English language proficiency, high school class rank, and the initiation of the idea to study abroad, absence from class had the most significant effect on participants' cumulative first-year college GPA at the U.

First- to Second-Year Persistence

As shown in Table 14, participants' first- to second-year persistence was significantly associated with high school class rank and absence from class. First, there was a significant difference in the probability of persistence to the second year of college between participants who were ranked among the top 20% in their high school class and those who were ranked among the bottom 50%. Specifically, the predicted odds of persistence for students who were ranked among the top 20% in their high school class were 10.5 times as high as the predicted odds of persistence for those who were ranked among the bottom 50% in their high school class. Second, there was a significant

Table 14.

Logistic Regression Predicting Participants' First- to Second-Year Persistence

Variable	<i>B</i>	<i>SE</i>	<i>OR</i>	95% CI	<i>p</i>
Gender					
Male	Reference				
Female	0.3761	0.2274	2.122	[0.87, 5.17]	0.0981
Registration status					
First-time freshmen	Reference				
New-transfer students	0.3774	0.2620	2.127	[0.76, 5.94]	0.1497
High school class rank					
<= 50%	Reference				
51-80%	-0.3148	0.2823	2.023	[0.74, 5.51]	0.2648
81-100%	1.3340	0.4040	10.519	[2.59, 42.73]	0.0010
IELTS					
<= 5.0	Reference				
>= 5.5	-0.0640	0.2496	1.791	[0.78, 4.09]	0.7975
Initiation of study-abroad idea					
Others	Reference				
Self	0.2914	0.2109	1.791	[0.78, 4.09]	0.1670
Student-faculty interaction					
<= one time per week	Reference				
>= two times per week	-0.3253	0.2247	0.522	[0.22, 1.26]	0.1477
Peer interaction					
<= one time per week	Reference				
>= two times per week	-0.1420	0.2032	0.753	[0.34, 1.67]	0.4848
Absence from class					
>= 4 times	Reference				
1-3 times	-0.2722	0.2982	1.697	[0.45, 6.41]	0.3612
0 times	1.0730	0.3625	6.513	[1.45, 29.27]	0.0031

Note. CI = confidence interval for odds ratio (*OR*).

difference in the probability of persistence to the second year at the U between students who were absent from class greater than or equal to four times and students who were never absent from the class. The predicted odds of persistence for students who were never absent from class was 6.5 times as high as the predicted odds for those who were absent from class greater than or equal to four times.

Summary

This chapter reported the results of data analyses and findings of the study. It first provided an in-depth description of study participants regarding their background characteristics, study abroad decision-making processes, and applying to American universities. Then, the chapter investigated participants' first-year academic experiences at the U, including academic challenges and coping strategies. Next, Chinese undergraduates' first-year academic achievement as measured by attempted credit hours, earned credit hours, cumulative first-year college GPA, and first- to second-year persistence was examined and compared with that of American and other international first-year students. The last section of the chapter presented findings from two regression models for predicting participants' cumulative first-year college GPA and first- to second-year persistence.

CHAPTER 5

DISCUSSION AND IMPLICATIONS

The purpose of this study was to examine the first-year academic experiences and achievement of Chinese international undergraduate students in American higher education. In the preceding chapter, both qualitative and quantitative measures were used to explore how participants navigated their first year of college. In this final chapter, the results of both qualitative and quantitative analyses are first discussed, and then the limitations of the study are presented. After that, the implications of the study for policy and practice and recommendations for future research are addressed. Finally, the chapter ends with some general conclusions.

Discussion

Before setting out to discuss the major findings and contributions of this study, it is important to note that the findings of this study confirmed the effectiveness of the model presented at the end of the literature review in Chapter 2 for predicting Chinese undergraduate success in American higher education. The model was developed on the basis of a thorough review of literature on the factors that affect college student success and international student success. However, it was unclear whether these factors affect Chinese international students pursuing undergraduate education at American colleges

and universities. In this study, two regression models derived from the original model were tested. Although these regression models did not capture all relevant predictors, the results clearly demonstrate that they provide a good instrument for studying the academic achievement of Chinese undergraduates on American campuses. Specifically, the regression models found that gender, high school class rank, English language proficiency, the initiation of the idea to study abroad, and absence from class were significantly correlated with participants' cumulative first-year college GPA, while high school class rank and absence from class were significantly associated with their first- to second-year persistence. Therefore, these results verified the effectiveness of the original model. The model is preliminary, but it helps lay a foundation for the development of a more comprehensive model that can be used to predict Chinese undergraduate success in American higher education. As such, the model is one of the main contributions of this study and is worthy of further research. In the following subsections, I discuss the findings of this study from four aspects: changing student profile, academic transition, academic achievement, and factors that affect Chinese undergraduate success.

Changing Student Profile

Compared with previous generations of Chinese students—particularly PRC students studying in the U.S. in the 1980s and 1990s—the profile of Chinese undergraduates in this study is dramatically different. As far as geographical origins are concerned, about one-third of participants were from China's middle and western provinces, while about two-thirds were from China's eastern provinces. Additionally, more than one-third of the participants were from China's southeast coast provinces (i.e.,

Fujian, Guangdong, Jiangsu, and Zhejiang), which is the area with the longest and most direct exposure to the Western influence. These results were different from those of previous studies. Rhoads (2011) found that the overwhelming majority of CEM students (95.8%) were from the abovementioned four provinces, with more than two-thirds coming from a single province—Guangdong. Wang (1966) found that the students from Guangdong, Jiangsu, and Zhejiang made up 57-82% of Chinese students studying in America over the period from 1909 to 1945. In addition, Lampton et al. (1986) reported that in 1983, 25% of F-1 visa applicants listed Fujian, Guangdong, Jiangsu, and Zhejiang as their current address, while 10% of J-1 visa applicants did so. Together, these findings indicate that the Chinese international student population is becoming more diverse by geographic origins.

It is also evident that many participants were not adequately prepared for college-level work in the U.S. Of the 26 interview participants, 10 indicated that they either could not gain a place in Chinese higher education or could only attend a third-tier institution. Of the 175 survey participants, more than 20.0% reported that they could not attend their desired college or university in China. Additionally, only a quarter of survey participants reported that their academic performance was among the top 20 percentile in their high school class. These results align with previous findings. Bai (2008) compared current students with previous generations of PRC students studying abroad and found that the students in the current wave are much younger, have fewer years of education in China, and did not go through competitive selection procedures and examinations. Counsell (2011) and Yang (2007) also found that many Chinese students looked abroad for their

higher education because they could not gain entry into Chinese higher education or the Chinese universities of their choice.

In a related matter, the results of this study indicate that participants had a variety of different reasons for pursuing undergraduate education in the U.S. These findings support the results of previous research (Bodycott, 2009; Li & Bray, 2007; Mazzarol, 2002; Yang, 2007). On the one hand, many participants wanted to gain a better higher education in the U.S., improve their English skills, enrich their personal experience, and earn an American degree to boost their long-term career prospects. On the other hand, factors such as avoiding taking the Gaokao, failing to attend college in China, and being asked by their parents to study abroad pushed many participants to study in the U.S. While the first set of reasons was often given by the new transfer students who were not satisfied with their higher education experience in China or by the first-time freshmen who were ambitious and goal oriented, the second set of reasons was usually given by the first-time freshmen who lacked some basic study skills, did not do well on the Gaokao, and were not academically prepared for studying in the U.S. Comparatively, the students who articulated the first set of reasons were more serious about their study abroad experience and getting their education and career goals accomplished than those who articulated the second set of reasons.

I found it interesting that all participants financed their overseas education through family resources. This contrasts sharply with how previous generations of PRC students financed their study in the U.S. Between the late 1970s and the mid-2000s, many Chinese students in the U.S.—particularly those enrolled in graduate programs—were on government sponsorship or received financial support from American host institutions

(Bai, 2008; Orleans, 1988). Among the many factors that have contributed to this shift, White (2011) emphasized “the growing middle class able to invest in the significant costs of an overseas education” (para. 3) and “the oft-cited adage of one child supported by six adults” (para. 5), which refers to the concentration of financial resources from a child’s parents, maternal grandparents, and paternal grandparents due to China’s one-child policy that makes overseas education more affordable for many Chinese families. However, it is also worth noting that some participants in this study were concerned about the rising cost of studying at the U. For example, Xiaozhou mentioned that financial pressure was the biggest problem he faced while studying at the U. Shuhui also noted that she had to use her grandma’s retirement savings to pay tuition and live in her relative’s home to cut living costs.

This study found that participants’ parents (53.8%) were more likely to initiate the idea of studying in the U.S. than participants themselves (38.0%). This study also found that more than a third of participants chose their college major under the influence of their parents. These findings corroborate the ideas of Bodycott and Lai (2012), who suggested that although Chinese students were increasingly involved in study abroad decision-making processes, it was their parents who were more likely to make the final decisions on choice of country, university, and programs.

Another important finding of this study was that 91.7% of participants chose to use an educational agent when applying to American colleges and universities. This percentage was much higher than the one (i.e., 57%) reported by Zhang and Hagedorn (2011), and it may be related to the fact that the majority of participants in this study were Global Pathways students. Compared with regularly admitted students, Global Pathways

students were academically less prepared for studying in the U.S. and therefore were more likely to use a third-party agent to assist with their application to American universities. However, despite this difference, participants' rationales for using or not using an agent in this study are consistent with those revealed by Zhang and Hagedorn (2011). That is, educational agents play an important role in helping Chinese students navigate American university and visa application processes.

Academic Transition: Between Expectations and Reality

The results of this study indicate that although the majority of participants were satisfied with their academic experiences at the U, many students faced a range of challenges during their first year of college. This study also found that as time passed, many participants grew more comfortable with the new academic environments and were on track to gain the linguistic knowledge, study skills, and academic confidence necessary to succeed in the U.S.

Compared with their academic experiences in China, many participants felt more freedom while studying in the U.S. Not only did they have more control over what they learned and how they learned it, but they also had more free time. However, coping with this freedom proved challenging for some participants who lacked the achievement motivation and self-discipline skills necessary to take ownership of their own learning. Tingting's comments on the issue reflect the bitter reality for many participants: "They have a lot of free time every day. But they simply do not want to spend any time studying unless they have a test or an exam." Instead, they spent most of their time hanging out with friends, playing computer games, or sleeping.

Designed to help international students to succeed at the U, the Global Pathways program and ESL classes were not well regarded by many participants. The relatively loose admission requirements for the Global Pathways program brought in many Chinese undergraduates and tuition revenue for the U, but they were also the root of academic failure for those participants who were not adequately prepared to face the rigor of college in the United States. As for ESL classes, most participants voiced concerns about their instructors, including their status as graduate teaching assistants, their teaching approaches and skills, and particularly their lack of caring and nurturing attitudes toward international students. All these can have negative impacts on college student success (Cokley et al., 2006; Eagan Jr. & Jaeger, 2008; Plata & Robertson, 1998). Additionally, this study found that many participants were not willing to live in campus residence halls with American peers. This finding was unexpected and suggests that international student success on campus takes more effort than simply arranging for them to live with American peers and expecting them to adjust to life in a new country and a different educational system.

It is interesting to note that participants were concerned about what they perceived as too many Chinese students on campus. For example, many ESL classes were comprised almost entirely of Chinese undergraduates. As a result, some participants either did not have opportunities or were not motivated to interact with American peers. The high numbers of Chinese students on campus also created favorable conditions for them to stick together and spend an inordinate amount of time socializing with each other, thus making it difficult for some students to break bad habits (e.g., engaging in acts of academic dishonesty) and continue with good behaviors. The present finding is

consistent with the results of other research (Chang, 2002; Gurin, 1999; He & Banham, 2009; Zhao, Kuh, & Carini, 2005), which suggest that international student density may not be positively associated with many aspects of undergraduate experience. For example, Zhao, Kuh, and Carini (2005) discussed that simply recruiting a critical mass of international students may not help them and their American counterparts reap the substantial benefits of internationalization of higher education. Therefore, these authors urged that American colleges and universities endeavor to strike a balance in the proportion of international students on their campuses and avoid both high and low international student densities. This study clearly indicates that the U must face the reality that its Chinese undergraduate enrollments are growing disproportionately and take the necessary steps to avoid the associated problems.

The results of this study show that despite their enthusiasm about the open and dynamic atmosphere of American classrooms, participants had difficulty fully participating in class activities, including raising and answering questions, contributing to class discussions, and working collaboratively in groups. Limited English proficiency and unfamiliarity with the American educational system were among the most commonly cited reasons for their lack of participation. These results are consistent with the findings of other studies (Clark, Baker, & Li, 2007; Holmes, 2004). For example, Holmes (2004) found that Chinese students faced many difficulties in the New Zealand learning environment due to the dialogic nature of classroom communication, and urged New Zealand teachers “to move from the mind-set of a *deficit* to a *difference* view of Chinese learning and teaching methods” (p. 304).

This study found that the frequency of interactions participants had with their American instructors/professors was low, with almost two-thirds of participants having less than or equal to one interaction per week. Arguably, the survey was conducted during participants' first semester at the U, a time period when they might be less likely to interact with their instructors/professors. Indeed, in the interviews conducted during their second semester at the U, many participants indicated that they were more confident about their ability to interact with instructors/professors. Additionally, this study found that participants' interactions with instructors/professors were affected and defined by their limited English proficiency and cultural differences and were very different from the interactions American students had with instructors/professors. These results demonstrate that American instructors/professors must become multiculturally competent so that they can effectively interact with international students. Plata and Robertson (1998) warned that "the cumulative effect of cultural insensitivity has the potential of robbing [students of color] of their dignity, confidence, and the motivation to learn..." (p. 115). This warning message was confirmed by the findings of this study and it can serve as a wake-up call to university administrators and faculty.

Similarly, the frequency of interactions participants had with American peers was low. It is particularly worrisome that participants who graduated from IB programs in China or high schools in English-speaking countries also reported very limited interactions with American peers. This clearly indicates that factors other than English proficiency play an important role in the interactions or the lack thereof between American and Chinese undergraduates. Gareis (2012) pointed out that the individualism-collectivism continuum, easy access to preexisting social networks, and lack of effort by

American students to reach out to their international peers contribute to the lack of interactions between American and international students. Gareis (2012) suggested that American colleges and universities take initiatives such as extracurricular activities, communication, and intercultural training for both American and international students to promote interactions between sojourners and hosts. Participants in this study expressed a strong desire for similar programs as suggested by Gareis (2012). The U must pay attention to these suggestions and take the necessary measures to promote positive interactions between American and Chinese undergraduate students.

In addition to language barriers (Sun & Chen, 1999; Wan, 2001; Yuan, 2001) and academic adjustment (Lee, 2001; Sun & Chen, 1999; Yen, 1987), participants in this study faced several new challenges while studying in the U.S. These challenges include maintaining classroom decorum, upholding academic integrity, and meeting minimum academic standards and GPA requirements. These findings are new and further suggest the necessity of tightening admission standards for the Global Pathways programs, educating Chinese undergraduates about academic dishonesty, and taking a hard stand against students who violate class policies.

Academic Achievement: On Par with American Counterparts

Despite the fact that the majority of Chinese first-year students included in the statistical analyses were Global Pathways students, whose English proficiency test scores fell short of minimum cutoffs, on average they made some academic progress during their first year of college at the U. On every measure of academic achievement, Chinese female students outperformed their male counterparts; Chinese new transfer students

scored more favorably than Chinese first-time freshmen; and Chinese undergraduates who were regularly admitted or in the USPP program outperformed Chinese Global Pathways students. Considering that the U has terminated its USPP program due to quality and other concerns, it is somewhat surprising that USPP students' academic achievement was as positive as, if not better than, that of regularly admitted students. However, with a small sample size (i.e., 22 USPP students and 63 regularly admitted students), caution must be applied as the finding might be biased or nontransferable.

More importantly, despite all the doubts and criticism about Chinese undergraduates in the U.S. such as lack of involvement in campus life (Harris, 2012) and engaging in fraudulent application practices and unethical academic behaviors (Bartlett & Fischer, 2011), the first-year academic achievement of Chinese undergraduates in this study was similar to that of their American counterparts. Again, considering that the majority of Chinese undergraduates included in the analyses were Global Pathways students, who were not adequately prepared for undergraduate study in the U.S. and had to meet certain academic requirements to continue their studies at the U, the academic gains these students made during their first year at the U were dramatic. However, Chinese undergraduates lagged significantly behind other international students on every measure of academic achievement. These results might be related to the fact that the percentage of Global pathways students among the Chinese student subpopulation (68.2%) was much higher than the percentage of Global Pathways students among other international student subpopulations (21.5%).

What Matters to Chinese Undergraduate Success in the U.S.?

This study found that high school class rank and absence from class were significantly associated with participants' cumulative first-year college GPA and first- to second-year persistence. This study also found that gender, English language proficiency, and the initiation of the idea to study abroad were significantly associated with participants' cumulative first-year college GPA but not their first- to second-year persistence. The current finding regarding gender differences in college GPA was consistent with Scanlon's (1990) finding that female international students outperformed their male counterparts in terms of GPA. As for the initiation of the idea to study abroad, the current finding corroborates the ideas of Bodycott and Lai (2012), who suggested that Chinese students' perceptions of their involvement in the decision to undertake cross-border higher education "have ongoing effects on student well-being and their approaches and attitude toward their studies" (p. 266). In fact, the results of this study further indicate that participants' involvement in the study abroad decision-making processes was significantly correlated with their cumulative first-year college GPA. Moreover, this study contributes to the very limited literature on Chinese undergraduate success by revealing that high school academic achievement (i.e., high school class rank) and study efforts in the U.S. (i.e., absence from class) were significantly associated with participants' cumulative first-year college GPA and first- to second-year persistence.

On the other hand, the current study found that registration status, student-faculty interaction, and peer interaction were not significantly correlated with either participants' cumulative first-year college GPA or their first- to second-year persistence. The findings regarding participants' interactions with American instructors/professors and peers are of

particular interest because they contradict the findings of many previous studies (Anaya, 1992, 1999; Cole, 2007; Dika, 2012; Pascarella, Terenzini, & Hibel, 1978) and may be related to Chinese students' cultural differences in learning style. Put differently, although peer interaction and student-faculty interaction are important factors that affect American college student success (Anaya & Cole, 2001; Astin, 1993), their impacts on the academic achievement of Chinese undergraduates may be different because these students are not accustomed to engaging in these educationally purposeful activities. This explanation was supported by the interviews with many participants. Cong, Guoqiang, Qi, Shuhui, Tingting, Xiaohua, Yan, and Ying all had a cumulative first-year college GPA higher than 3.5 and persisted to the second year at the U, but they all reported low frequency of interactions with American instructors/professors and peers. As further evidence, Li, Chen, and Duanmu (2010) found that the academic achievement of Chinese international students in a U.K. university was not negatively affected by their less active learning strategy.

Limitations

This study has some limitations. First, this study was limited to Chinese international undergraduate students enrolled at the U for the first time in the fall semester of 2012. Since the majority of these students came to the university through the Global Pathways program or US-Sino Pathway Program (USPP), two university preparation or conditional admission programs heavily targeting Chinese international students, the findings of this study may not be generalizable to Chinese undergraduates at other American colleges and universities.

Second, this study used self-report questionnaires to collect quantitative data regarding participants' background characteristics and employed semistructured interviews to collect qualitative data related to their first-year academic experiences. The nature of these self-report data may raise data quality concerns. For example, some study participants might fail to answer survey or interview questions with candor, and therefore the results of the study may not accurately reflect the opinions of all participants. Participants may also lack the introspective ability to provide an accurate response to a question or have a different interpretation of particular questions.

Third, the participants in the qualitative portion of the study were chosen from Chinese international undergraduates who took part in the survey and indicated that they were interested in a face-to-face interview with the researcher. The nature of this self-selection process may also raise data quality concerns. For example, considering the importance of saving face in Chinese culture (Braxton, 1999), the students who were interested in an interview with the researcher were likely to be more academically successful than those who chose not to accept the interview invitation. As a result, the qualitative data may not accurately reflect the opinions of Chinese international undergraduates who were less academically successful.

Despite these limitations, the significance of this study and its findings should not be underestimated. First, as more American colleges and universities seek to increase their international student enrollments, conditional admission or pathway programs such as the U's Global Pathways program and USPP program are growing in popularity (Fischer, 2010; Redden, 2013). Many institutions such as the University of Massachusetts, University of New Hampshire, Northeastern University, George Mason

University, Colorado State University, and Oregon State University are currently offering pathway programs (Redden, 2013). The findings of this study can help these institutions better understand Chinese undergraduates in pathway programs and improve their services to ensure the best steps are taken to meet the needs of Chinese undergraduates. Second, the mixed methods design used in this study enhances the integrity of the findings. As Creswell and Plano Clark (2011) noted, a mixed methods approach draws on the strengths of both quantitative and qualitative methods, and uses different but complementary data in a single study. Therefore, a mixed methods design provides more complex results than a study relying on only quantitative or qualitative data. In this study, both qualitative and quantitative methods were used to honor the voices of participants, map the complexity of the situation, and determine how Chinese undergraduates performed academically in comparison to other student groups. Third, in this study, I took additional efforts to reach out to less academically successful Chinese undergraduates and better understand their academic experiences. The first-term GPA at the U was used as one of the criteria in selecting interview participants, whose academic performance ranging from being low to high. Additionally, all interview participants were asked about their interactions with and perceptions of less academically successful Chinese undergraduates, a practice that might also contribute to a better understanding of less academically successful students.

Implications for Policy and Practice

This study has several significant implications for policy and practice. While the Global Pathways program will be no longer available at the U after December 31, 2014,

the findings of this study bring into question admission policies regarding the U's Global Pathways program and similar programs at other American colleges and universities. They provide insights into the strategies and tools that university administrators, faculty, and student affairs professionals can use to create a successful campus environment for Chinese undergraduates. The findings of this study can also help Chinese undergraduates address cross-cultural learning barriers and facilitate their efforts to become successful cross-cultural learners.

In this study, both qualitative and quantitative results show that compared with regularly admitted Chinese students and other international Global Pathways students, Chinese Global Pathways students encountered greater difficulties in their academic adjustment during the first year of college at the U and their academic achievement was significantly lower than that of the abovementioned two groups of students. Although personal factors on the part of Chinese Global Pathways students play a role, some accountability for their unsatisfactory academic experiences and relatively low academic achievement lies with the University of Utah and Kaplan Global Solutions, a division of Kaplan, Inc. Specifically, admission policies regarding Chinese Global Pathways students are the root of many problems. In other words, while these policies provided many Chinese undergraduates with an opportunity to study in the U.S., they failed to identify applicants who were adequately prepared for academic success in the U.S. Although detailed selection criteria may vary from subject to subject, the results of this study indicate that American colleges and universities offering or considering offering conditional admission or pathway programs and their partners should focus on looking for attributes such as academic ability and potential, motivation and suitability for the

chosen course, and commitment and self-discipline from Chinese applicants. These attributes were shown to be associated with higher levels of student achievement in this study. American institutions of higher education offering or considering offering similar programs may particularly want to raise the minimum English proficiency test score for these programs because the results of statistical analysis in this study showed that English language proficiency was significantly and positively associated with participants' cumulative first-year college GPA.

The results of this study indicate that Chinese undergraduates demonstrate different characteristics from previous generations of PRC students studying in the U.S. and that their learning styles and strategies are different from those of their American counterparts. As the number of Chinese undergraduates in the U.S. grows, it is essential that American college and university administrators, faculty, and student affairs professionals develop a better understanding of this group of students, accommodate their needs, and facilitate their learning (Lin & Yi, 1997; Liu, 2009).

First, it is important that American faculty and student affairs professionals become multiculturally competent and have the capacity, knowledge, sensitivity, and resources to welcome and engage Chinese undergraduates into their activities. Huntley (1993) noted that adaptation problems of international students remain relatively unknown to academic and support staff of American institutions of higher education. Therefore, cross-cultural workshops for university personnel and instructors can go a long way towards helping them understand their international students and develop supportive response patterns. Darcy (2003) encouraged American faculty members to improve their communication skills with their international students. Wan (2001) urged

that American colleges and universities provide “a safe and low-anxiety” (p. 43) environment for international students and called for American educators to assist international students by understanding their home cultures, different learning styles, and frustrations in adjusting to academic life and overcoming cultural shocks. In this study, some participants raised concern about the way they were treated by instructors/professors and support staff. This clearly demonstrates the necessity and importance of improving the multicultural competence of American faculty and student affairs professionals.

Second, it is crucial that American colleges and universities provide more culture-oriented programs and services to help Chinese undergraduates build the skills necessary to successfully adapt to the academic and social environments of American campus life. Toward that end, Liu (2009) proposed several programs to assist Chinese students in developing a strong social support system, including providing Chinese students with American mentors, pairing Chinese students with American peers, host family programs, and online communities. Other programs such as English classes, cultural orientations, and peer support programs were also suggested (Huntley, 1993; Lin, 2006). Additionally, Zhao, Kuh, and Carini (2005) urged that American faculty promote the interaction between Asian students and their American peers through classroom group projects. In this study, the majority of participants reported lack of integration into the academic and social fabric of campus life. Some participants with a 3.5 or higher GPA felt hurt because they were not integrated into campus life. All of the participants expressed a strong desire for more culture-oriented programs and services to support their adjustment efforts.

Third, Chinese undergraduates need to be more proactive and focus more efforts on overcoming their cross-cultural barriers and becoming successful cross-cultural learners. While American institutions, faculty, and staff may accommodate certain needs of Chinese students and facilitate their learning, it is unrealistic to expect American instructors/professors to change their teaching philosophy and practice to fit the learning styles of Chinese undergraduates. Therefore, Chinese undergraduates must take initiative and responsibility to become integrated into the academic and social systems of American campus life. To achieve this goal, they must forgo some of their previously-held learning beliefs, make an effort to update themselves on American teaching approaches and learning strategies, develop their communication and interpersonal skills, and change their learning attitudes and self-concept. In this study, many participants began to appreciate the importance of participating in class activities, interacting with instructors/professors and American peers, and maintaining academic integrity. As they continue to develop language skills and acquire a good knowledge of American culture, these students will become not only high academic achievers but also full-fledged participants in American higher education.

Recommendations for Future Research

This study represented an effort to empirically investigate Chinese undergraduates' academic experiences and achievement in American higher education. Nevertheless, more research is needed to advance our understanding and knowledge of this continually growing student subpopulation on American campuses. In order for that to occur, it is crucial that higher education researchers and practitioners work together

collaboratively. Researchers must continue to develop a better understanding of Chinese undergraduates' academic experiences in the U.S. and the factors that contribute to positive and negative outcomes in their academic success. They must also continue to develop more comprehensive models of Chinese undergraduate success in American higher education. In turn, policymakers, education leaders, and college administrators must stay abreast of current research, and apply findings to inform decision making. Future research should focus on four specific areas.

First, future research needs to examine Chinese undergraduates' academic experiences and achievement on a large scale. Researchers must look at different types of students (i.e., first-time freshmen, transfer students, directly admitted students, and conditionally admitted students) attending different forms of American higher education (i.e., community colleges, private colleges and universities, and highly selective colleges and universities) to gain a better insight into Chinese undergraduates' overseas education experiences in the U.S. This will require collaboration among colleges and universities to facilitate the sharing of the necessary data.

Second, future research needs to examine Chinese undergraduates' academic experiences from the perspective of American instructors/professors and peers. Information regarding American faculty or students' interactions with Chinese undergraduates and their perceptions about Chinese undergraduates' classroom experiences, learning styles, and difficulties in adjusting to American campus life will greatly benefit Chinese undergraduates and help extend our knowledge of Chinese undergraduates' cross-cultural learning experiences.

Third, future research should examine Chinese undergraduates' academic experiences and achievement beyond their first year of college. Tracking a cohort of Chinese undergraduates over a longer time frame (i.e., 4- to 8-years) will enable researchers to identify changes that occur in students over time and the factors that contribute to these changes. This will not only strengthen the findings of the current study but also improve our understanding of Chinese undergraduates in the U.S.

Finally, future research on Chinese undergraduates would benefit from better data availability. In this study, Chinese undergraduates' demographic data beyond age and gender and the data concerning their previous educational background were not available through an existing database and had to be collected through survey questionnaires. In addition, including more potential predictors such as achievement motivation, academic self-efficacy, learning support offered, and academic mentoring in the regression models may improve the regression models.

Conclusion

In conclusion, this study confirms the findings of previous research on the shift from elite to mass overseas education in China. Over the past several years, the number of Chinese undergraduates studying in the U.S. continues to grow. They come from every region in China, have various reasons for studying abroad, and finance their overseas education through family resources. Compared with previous generations of PRC students studying in the U.S., these Chinese undergraduates have different educational backgrounds, and many of them are not adequately prepared to face the rigor of college in the United States. The findings of this study also strengthen evidence that Chinese

undergraduates experience great difficulties in navigating their first-year academic experiences on American campuses. These students face particular challenges coping with the dramatic increase in personal freedom and taking ownership of their own learning. Some other difficulties they encounter in the U.S. include engaging in active and collaborative learning, interacting with American faculty and peers, and maintaining academic integrity. Furthermore, the findings of this study suggest that despite many challenges, Chinese undergraduates are capable of achieving academic success on par with their American counterparts. The findings of this study expand our knowledge about the first-year academic experiences and achievement of Chinese undergraduates in American higher education and provide insights into strategies and tools that American colleges and universities can use to promote Chinese undergraduate success in the U.S.

APPENDIX A

A SURVEY OF CHINESE INTERNATIONAL UNDERGRADUATE STUDENTS AT THE UNIVERSITY OF UTAH

Participant's name _____ (in Chinese or Pin-yin)
Participant's signature _____

1. Where is your hometown in China?
City _____
Province _____
2. Where does your family live?
A In an urban area
B In a suburban area
C In a rural area
D Other _____
3. What is your current visa type?
A F-1 student visa
B J-1 student visa
C H-1 visa
D H-4 visa
E Other _____
4. Are you the only child in your family?
A Yes
B No
5. What was your highest educational attainment prior to enrolling at the University of Utah?
A Some high school
B High school diploma
C Some college
D Associate degree

- E Baccalaureate degree
F Other _____
6. Where did you graduate from high school?
A China
B The United States
C Australia
D Canada
E Other _____
F Not applicable
7. When did you graduate from high school? _____
8. What type of high school did you go to?
A Provincial key school
B Municipal key school
C Non-key school
D Other _____
E Not sure
F Not applicable
9. What was your high school grade point average (GPA)? _____
10. What was your academic performance in high school?
A Always No. 1
B Top 3
C Top 10
D Top half
E Bottom half
F Do not know
11. Did you take the Gaokao (National College Entrance Exam)?
A Yes
B No
12. What was your Gaokao score?
A Good enough for a 4-year college or university
B Good enough for a 2- or 3-year college
C Too low for any type of college or university
D Not applicable
13. What were your standardized test scores? (Please leave it blank if you did not take the test)
A ACT _____
B SAT _____
C TOEFL _____

- D IELTS _____
14. What are the highest degrees that your parents have obtained?
 A Father _____
 B Mother _____
15. In your estimate, what is your family's annual income?
 A < 50,000 yuan
 B between 50,000 and 99,999 yuan
 C between 100,000 and 299,999 yuan
 D between 300,000 and 499,999 yuan
 E between 500,000 and 999,999 yuan
 F \geq 1,000,000 yuan
 G Not sure
16. When did you originally come to the U.S. to study? _____
17. Why did you choose to pursue an undergraduate degree in the United States (Choose all that apply to you)?
 A To avoid taking the Gaokao
 B Cannot go to a desired college or university in China
 C Don't like Chinese education system and the reality of Chinese higher education
 D My parents wanted me to study abroad
 E Many of my friends had gone abroad
 F To get a better higher education in the United States
 G To improve my English skills
 H To get a foreign degree to improve my job prospects
 I To see the world and broaden my horizon
 J Others _____
18. Who initiated the idea of undertaking undergraduate education in the U.S.?
 A Myself
 B My parents
 C My siblings
 D My relatives
 E My friends
 F Educational agency
 G Other _____
 H Not sure
19. Who was the biggest influence on your decision to study abroad?
 A Myself
 B My parents
 C My siblings
 D My relatives

- E My friends
 - F Educational agency
 - G Other _____
 - H Not sure
20. How important is studying abroad to you?
- A Not at all
 - B Slightly
 - C Moderately
 - D Very
 - E Extremely
21. Was the United States your first-choice overseas study destination?
- A Yes
 - B No
22. Was the University of Utah your first-choice college?
- A Yes
 - B No
23. Is this the first time you have gone overseas?
- A Yes
 - B No
24. Do you have any family members or close relatives in the United States?
- A Yes
 - B No
25. How did you get into the University of Utah?
- A Applied directly from China
 - B Kaplan's Global Pathways Program
 - C Kaplan's US-Sino Pathways Program
 - D The University of Utah's English Language Institute (ELI)
 - E Other _____
26. Did you use a third-party agency when you applied to American universities and colleges?
- A Yes
 - B No
27. What is your primary source of financial support for your overseas education?
- A Parents
 - B Relatives
 - C Friends
 - D Scholarship/Assistantship
 - E Others _____

28. Is the cost of studying at the University of Utah a burden for your family?

- A Not at all
- B Slightly
- C Moderately
- D Very
- E Extremely

29. How do you rate your English language proficiency?

		Excellent	Good	Fair	Poor
A	Listening	_____	_____	_____	_____
B	Speaking	_____	_____	_____	_____
C	Reading	_____	_____	_____	_____
D	Writing	_____	_____	_____	_____
E	Overall	_____	_____	_____	_____

30. Who was the biggest influence on your decision to choose a major at the University of Utah?

- A Myself
- B My parents
- C My siblings
- D My relatives
- E My friends
- F Educational agency
- G Other _____
- H Not sure

31. What is your motivation to do well in your studies (Choose all that apply to you)?

- A To be the best I can be
- B To honor my parents and my family
- C To get a good job and good money
- D To pursue graduate studies in the United States
- E Other _____
- F I am not motivated at all
- G Not sure

32. How motivated are you to do well in your studies?

- A Not at all
- B Slightly
- C Moderately
- D Very
- E Extremely

33. What type of student are you?

- A A hard-working student whose primary goal is to earn a bachelor's degree from American university

36. How frequently during this semester have you gone to class late?

- A 0
- B 1-3
- C 4-6
- D >6

37. How frequently during this semester have you skipped class?

- A 0
- B 1-3
- C 4-6
- D >6

38. How frequently do you ask questions in class or contribute to classroom discussion?

- A Never
- B Once a month
- C Once a week
- D 2-5 times a week
- E Every class
- E Other _____

39. How often do you interact with your instructors/professors?

- A Never
- B Once a month
- C Once a week
- D 2-5 times a week
- E Everyday
- F Other _____

40. How much do you agree or disagree with the following statements?

	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree
• My teachers understand the problems of international students	_____	_____	_____	_____	_____
• My teachers understand cultural differences in learning styles	_____	_____	_____	_____	_____
• My teachers make special efforts to help international students	_____	_____	_____	_____	_____
• My teachers encourage contact between international and local students	_____	_____	_____	_____	_____
• Students from different	_____	_____	_____	_____	_____

cultural groups work well
with each other in my classes _____
• I feel included in my class _____

41. How often do you interact with your American classmates?
 A Never
 B Once a month
 C Once a week
 D 2-5 times a week
 E Everyday
 F Other _____
42. Overall, is the amount of work in all your course(s) during this semester _____?
 A Too little
 B About right
 C Too much
 D I cannot take it anymore
 E Other _____
43. What is the biggest challenge that you have encountered in your studies at the University of Utah?
 A Poor English proficiency
 B Academic unpreparedness
 C Differences in educational systems between the U.S. and China
 D Cultural differences between the U.S. and China
 E Not enough academic support from the University of Utah
 F Other _____
 G Not applicable
44. What are your strategies for coping with academic challenges? (Please select all that apply to you)
 A Studying harder and longer
 B Taking fewer classes
 C Majoring in science, technology, engineering, or mathematics
 D Seeking help from Chinese students
 E Seeking help from American students
 F Seeking help from international students from other countries
 G Seeking help from instructors/professors
 H Seeking help from student support departments (e.g., academic advising, international center, or writing center)
 I Other _____
 J Not applicable
45. When you have academic problems, who do you turn to for help?
 A Chinese students
 B American students

- C International students from other countries
- D Instructors/professors
- E Student support departments (e.g., academic advising, international center, or writing center)
- F Other _____

46. Have you ever seriously considered dropping out of the University of Utah because of the challenges you have encountered?

- A Never ever
- B Just one time
- C Several times
- D I am sure I will drop out of the University of Utah soon
- E Not applicable

47. Please rate the following programs/courses and the departments/centers. (Please leave it blank if it does not apply to you)

	Excellent	Good	Fair	Poor
English Courses	_____	_____	_____	_____
Student Orientation	_____	_____	_____	_____
Academic Advising	_____	_____	_____	_____
Writing Center	_____	_____	_____	_____
Tutoring Center	_____	_____	_____	_____
Writing Center	_____	_____	_____	_____
International Center	_____	_____	_____	_____

48. Do you work for pay on or off campus?

- A Yes
- B No

49. Where do you live while attending the University of Utah?

- A On campus
- B Off campus

50. Which of the following best describe your living situation?

- A Live by myself
- B Live with Chinese roommate(s)
- C Live with American roommate(s)
- D Live with other international student(s)
- E Live with a host family
- F Live with relatives
- G Other _____

51. How do you assess your overseas education experience?

- A Very unsatisfied

- B Unsatisfied
 - C Neutral
 - D Satisfied
 - E Very satisfied
52. What is the biggest challenge you face while studying abroad?
- A Academic pressure
 - B Financial pressure
 - C Living pressure
 - D Cultural pressure
 - E Psychological pressure
 - F Other _____
 - G Not applicable
53. How do you assess your overall academic experience at the University of Utah?
- A Very unsatisfied
 - B Unsatisfied
 - C Neutral
 - D Satisfied
 - E Very satisfied
54. Would you recommend friends or family members to pursue an undergraduate degree in the United States?
- A Yes
 - B No
 - C Not sure
55. What do you plan to do after completing your undergraduate studies at the University of Utah?
- A Enroll for further studies in China
 - B Enroll for further studies in the United States
 - C Enroll for further studies in another country overseas
 - D Find a job in China
 - E Find a job in the United States
 - F Find a job in another country overseas
 - G Other _____
 - H Do not know

Thanks for participating in the survey. In addition, you are invited to participate in a face-to-face interview to be scheduled at a later time. If you are interested, please provide your contact information below. Thank you!

Your cell phone number: _____
Your email address: _____
Other contact information: _____

APPENDIX B

THE CHINESE TRANSLATION OF SURVEY QUESTIONNAIRE

姓名_____ (中文)

姓名_____ (汉语拼音)

1. 你的家乡是?_____省_____市
2. 你的家住在?
 - A 城市
 - B 城乡结合部
 - C 农村
 - D 其他_____
3. 你目前的美国签证种类是?
 - A F-1 学生签证
 - B J-1 学生签证
 - C H-1 签证
 - D H-4 签证
 - E 其他_____
4. 你是否为独生子女?
 - A 是
 - B 否
5. 在来犹他大学之前, 你所取得的最高学历是?
 - A 念过高中但未毕业
 - B 高中毕业
 - C 念过大学但未毕业 (大学 _____ 年级?)
 - D 专科毕业
 - E 本科毕业
 - F 其他_____

6. 你高中毕业于以下哪个国家？
- A 中国
 - B 美国
 - C 澳大利亚
 - D 加拿大
 - E 其他_____
 - F 这个问题对我不适用
7. 你高中毕业的年份是？ 20 _____ 年
8. 你就读的高中属于以下哪一类？
- A 省重点
 - B 市重点
 - C 非重点
 - D 其他_____
 - E 不确定
 - F 这个问题对我不适用
9. 你的高中平均成绩是？ 中国百分制_____ 美国四分制_____
10. 你高中时的学业成绩班级排名是？
- A 一直第一
 - B 前三名
 - C 前十名
 - D 中游以上(前百分之五十)
 - E 中游以下(后百分之五十)
 - F 不确定
11. 你是否参加过高考？
- A 是
 - B 否
12. 你的高考成绩如何？
- A 可以使我进入一所本科院校
 - B 可以使我进入一所专科院校
 - C 可以使我进入一所其他类别院校
 - D 不足以使我进入任何高等院校
 - E 这个问题对我不适用
13. 你参加以下考试的成绩是多少？（如果没有参加过这些考试，请不要填写）
- A ACT _____
 - B SAT _____
 - C TOEFL _____
 - D IELTS _____

14. 你父母的最高学历是？
- A 父亲_____
 - B 母亲_____
15. 请估计你的家庭每年平均收入大致是多少（人民币）？
- A 五万元以下
 - B 五万元到十万元之间（不含上限）
 - C 十万元到三十万元之间（不含上限）
 - D 三十万元到五十万元之间（不含上限）
 - E 五十万元到一百万元之间（不含上限）
 - F 一百万元以上
 - G 不确定
16. 你最初来美读书的时间是？20_____年_____月
17. 你为什么选择到美国来攻读本科学位？（请选择所有适合你的选项）
- A 不想在中国参加高考
 - B 在中国不能进入自己理想的院校
 - C 不喜欢中国的教育体制和高等教育现状
 - D 我的父母希望我到美国来读书
 - E 我的很多朋友都到美国来读书了
 - F 到美国来接受更好的高等教育
 - G 到美国来提高我的英语水平
 - H 得到一个美国学位以便将来好找工作
 - I 周游世界拓宽眼界
 - J 其他_____
18. 谁最早提出让你出国留学的想法？（请仅选择一项）
- A 自己
 - B 父母
 - C 兄弟姐妹
 - D 亲戚
 - E 朋友
 - F 教育中介机构
 - G 其他_____
 - H 不确定
19. 在你决定出国留学的过程中，谁对你的影响最大？（请仅选择一项）
- A 自己
 - B 父母
 - C 兄弟姐妹
 - D 亲戚
 - E 朋友

- F 教育中介机构
- G 其他_____
- H 不确定

20. 出国留学对你来说是否重要？

- A 一点也不重要
- B 稍微有些重要
- C 重要程度适中
- D 很重要
- E 极其重要

21. 美国是你出国留学的第一目的地吗？

- A 是
- B 否

22. 犹他大学是你出国留学的第一选择吗？

- A 是
- B 否

23. 这次来美国留学是你第一次出国吗？

- A 是
- B 否

24. 你的家庭成员或近亲中是否有人在美国居住？

- A 是
- B 否

25. 你是通过何种渠道被犹他大学录取的？

- A 从国内直接申请并被犹他大学录取
- B 经由 Kaplan's Global Pathways Program
- C 经由 Kaplan's US-Sino Pathways Program
- D 经由犹他大学English Language Institute (ELI)
- E 从美国其他大学转学到犹他大学
- F 其他_____

26. 在申请美国大学的过程中，你是否使用了教育中介机构的有偿服务？

- A 是
- B 否

27. 你出国留学的主要经费来源是？

- A 父母
- B 亲戚
- C 朋友
- D 奖学金
- E 其他_____

28. 你在犹他大学的各类开销（学杂费，吃饭，住宿等）对于你的家庭来说是负担吗？

- A 根本不是负担
- B 稍微是个负担
- C 负担适中
- D 负担很重
- E 负担极为沉重

29. 你如何评价自己的英语水平？(请在适当的选项空白处划✓)

		很好	好	一般	很差
A	听	_____	_____	_____	_____
B	说	_____	_____	_____	_____
C	读	_____	_____	_____	_____
D	写	_____	_____	_____	_____
E	综合	_____	_____	_____	_____

30. 在犹他大学选择学习专业的过程中，谁对你的影响最大？（请仅选择一项）

- A 自己
- B 父母
- C 兄弟姐妹
- D 亲戚
- E 同学或朋友
- F 教育中介机构
- G 其他_____
- H 不确定

31. 你在犹他大学学习的动力是什么？（请选择所有适合你的选项）

- A 证明自己可以是最好的
- B 争取给父母和家庭带来荣耀
- C 争取将来获取一份好工作和好待遇
- D 争取进入好的美国研究生院
- E 其他_____
- F 我根本没有认真学习的动力
- G 不确定

32. 你在犹他大学学习的动力有多大？

- A 根本没有任何动力
- B 稍微有些动力
- C 动力程度中等
- D 动力程度很大
- E 动力程度极其强大

33. 你是属于哪一种类型的留学生？

- A 专心学习，获取美国学位高于一切
- B 注重交流，争取融入美国校园和社会

- C 顺其自然，享受属于自己的大学生活
 D 全面发展，既努力学习又争取融入美国校园和社会
 E 其他_____

34. 你在犹他大学获取好的学习成绩对于你自己或你的父母来说重要吗？

- A 一点也不重要
 B 稍微有些重要
 C 重要程度中等
 D 很重要
 E 极其重要

35. 你在参与以下这些教学活动时是否有困难？(请在适当的选项空白处划✓)

	不 适用	毫无 困难	稍有 困难	困难 适中	困难 很大	极其 困难
A理解老师讲课	_____	_____	_____	_____	_____	_____
B做课堂笔记	_____	_____	_____	_____	_____	_____
C按时完成作业	_____	_____	_____	_____	_____	_____
D参与小组课题	_____	_____	_____	_____	_____	_____
E完成各类考试	_____	_____	_____	_____	_____	_____
F做口头报告	_____	_____	_____	_____	_____	_____
G课堂提问	_____	_____	_____	_____	_____	_____
H批判性思维	_____	_____	_____	_____	_____	_____
I课上表达见解	_____	_____	_____	_____	_____	_____
J在不同的教育 体制下学习	_____	_____	_____	_____	_____	_____

36. 到目前为止，你在这个学期里上课迟到的次数是？

- A 0
 B 1-3
 C 4-6
 D 6次以上

37. 到目前为止，你在这个学期里旷课的次数是？

- A 0
 B 1-3
 C 4-6

- D 6 次以上
38. 你是否经常在课堂上提问或者参与课堂讨论?
- A 从来也不
B 每月一次
C 每周一次
D 每周 2 - 5 次
E 每堂课都这么做
F 其他_____
39. 你是否经常与老师在课堂内外交流?
- A 从来也不
B 每月一次
C 每周一次
D 每周 2 - 5 次
E 每天都这么做
F 其他_____
40. 你是否同意以下这些与教学活动相关的陈述? (请在适当的选项空白处划✓)
(答案选项: 1 = 强烈不同意; 2 = 适度不同意; 3 = 既不同意也不反对;
4 = 适度同意; 5 = 强烈同意)
- | | 1 | 2 | 3 | 4 | 5 |
|------------------------------|-------|-------|-------|-------|-------|
| A 我的老师理解外国学生的困难 | _____ | _____ | _____ | _____ | _____ |
| B 我的老师理解学习方式中的文化差异 | _____ | _____ | _____ | _____ | _____ |
| C 我的老师作出特殊安排来帮助外国学生 | _____ | _____ | _____ | _____ | _____ |
| D 我的老师鼓励外国学生和 American 学生多接触 | _____ | _____ | _____ | _____ | _____ |
| E 来自不同文化背景的学生相处融洽 | _____ | _____ | _____ | _____ | _____ |
| F 我感觉能够融入课堂 | _____ | _____ | _____ | _____ | _____ |
41. 你是否经常与美国同学在课堂内外交流?
- A 从来也不
B 每月一次
C 每周一次
D 每周 2 - 5 次

- E 每天都这么做
F 其他_____
42. 总的来说，你感觉这学期的学习压力？
A 很小
B 正合适
C 很大
D 接近崩溃边缘
E 其他_____
43. 目前你在学业上面临的最大挑战是？（请选择所有适合你的选项）
A 英语水平差
B 学业基础不扎实
C 中美教育体制的不同
D 中美文化间的差异
E 从犹他大学得不到充分的学业上的支持
F 其他_____
G 这个问题对我不适用
44. 你应对学业上挑战的主要策略是？（请选择所有适合你的选项）
A 更加努力和长时间的学习
B 少选课
C 选择工程或技术类的专业
D 寻求中国学生的帮助
E 寻求美国学生的帮助
F 寻求其他外国学生的帮助
G 寻求老师的帮助
H 寻求学校相关部门的帮助(如writing center或 academic advising)
I 其他_____
J 这个问题对我不适用
45. 在学习中碰到困难时，你会首先向谁寻求帮助？
A 中国同学
B 美国同学
C 其他国家的同学
D 老师/教授
E 学校相关部门 (如writing center或 academic advising)
F 其他_____
46. 因为面临的各种困难，你是否认真地考虑过从犹他大学退学？
A 从来没有考虑过
B 考虑过一次
C 考虑过好多次
D 我不久就会选择退学
E 这个问题对我不适用

47. 如果你选修过下面这些课程或使用过下面一些部门的服务，请评估它们的质量。
(请在适当的选项空白处划✓ 如果有些选项对你不适用，请不要填写)

	很好	好	一般	很差
English Courses	_____	_____	_____	_____
Student Orientation	_____	_____	_____	_____
Academic Advising	_____	_____	_____	_____
Counseling Center	_____	_____	_____	_____
Tutoring Center	_____	_____	_____	_____
Writing Center	_____	_____	_____	_____
International Center	_____	_____	_____	_____

48. 你是否在校内外工作以赚些零花钱？

A 是
B 否

49. 你住在？

A 校内
B 校外

50. 下面哪种陈述符合你的住宿情况？

A 自己单独居住
B 与中国学生合住
C 与美国学生合住
D 与其他外国学生合住
E 与Host Family居住在一起
F 与亲戚居住在一起

51. 请从总体上评估你的留学经历？

A 很不满意
B 不满意
C 中性
D 满意
E 很满意

52. 请从总体上评估你目前在留学过程中面临的最大问题是？（请仅选择一项）

A 学习压力大
B 经济压力大
C 生活压力大（包括吃穿住行等）
D 文化差异压力大
E 心理压力（包括孤独抑郁焦虑等）
F 其他_____

G 这个问题对我不适用

53. 请从总体上评估你在犹他大学的学业经历？
- A 很不满意
 - B 不满意
 - C 中性
 - D 满意
 - E 很满意
54. 你是否会推荐你的亲戚朋友到美国来攻读本科学位？
- A 是
 - B 否
 - C 不确定
55. 在美国完成本科学业后，你打算做什么？
- A 回到中国继续接受教育
 - B 留在美国继续接受教育
 - C 去到别的国家继续接受教育
 - D 回到中国找工作
 - E 留在美国找工作
 - F 去到别的国家找工作
 - G 其他_____
 - H 不知道

非常感谢你参与这项问卷调查。此外，我们诚挚地邀请你在将来适当的时候参与面对面访谈。如果你对参与访谈感兴趣，请在下面留下你的联系方式。谢谢！

你的手机号码_____

你的电子信箱_____

其他联系方式_____

APPENDIX C

INTERVIEW PROTOCOL

Semistructured interviews are used to gather data for a more in-depth understanding of Chinese international undergraduates' rationale for pursuing undergraduate studies in the U.S. and their academic experiences at the University of Utah, including the challenges they encounter and the coping strategies they employ. Standard questions are developed and will be asked in each interview. Meanwhile, the protocol allows for changes such as using prompts and asking for additional questions.

1. Would you please briefly introduce yourself?

Probes: Please tell me a little about your family in China (income, parental education, and etc.). What is your education background in China (college or Gaokao)?

2. Why did you choose to pursue your undergraduate study in the U. S.?
3. Who initiated the idea of studying abroad?

Probes: If your parents initiated the idea, did you agree with them? Did you really want to study in the U.S.? If you initiated the idea, did your parents agree with your choice?

4. Please describe your experience when applying to American colleges and universities?

- Probes: Did you use a third-party agent? Why or why not? If you used an agent, were you satisfied with the services you received?
5. What is your typical school day like at the U?
 6. How do you assess your academic experiences (i.e., classes, homework, exams, teaching methods, university support, and etc.) at the U? Are you satisfied with your experiences?
 7. Please tell me about your interactions with your instructors/professors.
 8. Please tell me your interactions with American students.
 9. What do you like most about your academic experiences at the U?
 10. What do you like least about your academic experience at the U?
 11. What is your first-term GPA at the U? Are you satisfied with your performance?
Why or why not?
 12. In your opinion, what factors affect your academic performance?
Probes: What do you think about your English proficiency? What do you think about your academic preparation? How motivated are you at the U? How much effort have you put into your study?
 13. What is the biggest challenge that you encounter in your study at the U? What are your coping strategies?
 14. Have you ever thought about leaving the U and returning to China? What helps you stay at the U?
 15. Do you plan to complete your undergraduate study at the U? If yes, what do you plan to do after graduation? If no, what is your plan?

16. In your opinion, what is the single most important thing the U could realistically do to help enhance your academic experience and improve your academic achievement?
17. Knowing what you know now about study abroad, would you still choose to pursue undergraduate study in the U.S. and particularly at the U?
18. What advice would you offer to prospective Chinese students who want to pursue undergraduate study in the U.S.?

APPENDIX D

THE CHINESE TRANSLATION OF INTERVIEW QUESTIONS

1. 请简要介绍一下你自己。
2. 你为什么选择到美国来读本科学位？
3. 谁最早提出让你到美国来读书？
4. 请谈一谈你申请美国大学的经历。
5. 你在犹他大学的一天是如何度过的？
6. 请谈一谈你在犹他大学的学习经历。你对自己的经历是否满意？
7. 请谈一谈你跟老师或教授接触互动的情况？
8. 请谈一谈你跟美国同学接触互动的情况？
9. 在犹他大学学习过程中，你最满意的经历是什么？
10. 在犹他大学学习过程中，你最不满意的经历是什么？
11. 请谈一谈你在犹他大学的学习成绩。你对自己的成绩是否满意？
12. 你认为哪些因素影响了你的学习成绩？
13. 在犹他大学学习过程中，你最大的挑战是什么？你的应对策略是什么？
14. 因为面临的困难，你是否考虑过退学？是什么因素使你选择留在学校？
15. 你是否打算在犹他大学完成本科学位？你毕业后的计划是什么？
16. 你认为犹他大学可以做些什么来帮助中国留美本科生？

17. 如果可以重新选择的话，你是否仍打算到美国来读书？
18. 你对将来准备到美国读本科学位的中国学生有哪些建议或忠告？

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