

THE PANTHER UNIVERSITY INTERNATIONAL  
ACCELERATOR PROGRAM: A PROGRAM EVALUATION

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## ABSTRACT

While it is true that a variety of research has been conducting regarding the acculturation of international students to U.S universities, little research is available on the impact of international accelerator programs (otherwise known as pathway programs) on international student adjustment. This dissertation focuses on how the International Accelerator Program (IAP) affected the student satisfaction of new undergraduate international students enrolled at Panther University for Fall 2016.

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

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

The themes that emerged are described as (1) academic connection, (2) personal exploration, (3) cultural connection, and (4) cultural empathy. By the end of the Fall 2016 semester, the course participants tended to be more informed with regard to the full array of programs at Panther University and how to utilize university services than their nonparticipant counterparts. They also tended to be more involved in social activities, encountered more diversity, and were more willing to venture out and explore U.S. culture.

However, while the IAP does seem to provide a 'jump start' for student learning, the moderate results of the study did not provide strong evidence of substantial academic adaptation in the three and a half months of the 2016 Fall term for the IAP students. More specifically, even though the IAP provided a substantial learning environment for participants in terms of how to be successful students at Panther University, as a variable, participation in the IAP was not significant.

Recommendations for practice and future research included IAPs designed solely for undergraduate international students to be included in a comprehensive international student adjustment strategy, and expanding research into IAPs to include longer-term studies, as well as making use of qualitative and mixed methods approaches.

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## CHAPTER 1 INTRODUCTION

With an estimated one in five of the world's population speaking English (Crystal, 2011), English for Academic Purposes (EAP) is now a global academic endeavor. Practiced in four primary locations, the majority of EAP instruction is carried out in native English-speaking countries (UK, US, Canada, Australia). This is due to the large population of non-English speaking students who travel to these regions to study. Second, EAP is practiced in areas where English is a second language and used exclusively for university instruction (e.g., colonial territories of Britain). Third, EAP is employed in areas where English is not spoken; however, for research purposes, English is necessary (Japan, China, Latin America, etc.). Lastly, EAP is offered in areas that were formerly of the USSR as they try to distance themselves from past Soviet influence.

It would be easy to assume that the dominance of the English language is because it has the largest number of native speakers (NSs). This, however, is not at all true. As reported by *The World Almanac and Book of Facts* (1998), the top four spoken world languages are (in order): Mandarin, Hindi, Spanish and English.

What, then, is so attractive about English to non-native speakers (NNSs)? From a business perspective, English would be the natural medium for economic transactions due to the fact that the richest countries in the world also happen to be English speaking countries. And as correctly identified by Graddol (1997), it would be wise for business people to speak the language of their customers. Commenting on the political and economic roots of EAP, Benesch (2001) argues that:

EAP's discourse of neutrality has presented the history of this field as a consensual and inevitable chronology of pedagogical events rather than a well-

crafted and organized effort on the part of governments, businesses, and foundations working together to promote English language teaching, conferences, publications, and faculty exchanges, ensuring that markets and labor would be available to promote their economic interests. (p. 34)

### **The Development of EAP as a Discipline**

Economic and regional factors can go a long way into explaining the adoption of the English language in certain parts of the NNS world. However, these factors fail to explain the development of EAP as a discipline. For this it will be important to obtain a deeper understanding of the general developments in applied linguistics.

The pioneering work by Halliday, McIntosh and Stevens (1964), *The Linguistic Sciences and Language Teaching*, contrasted the old view of language as an abstract construct with a new, more applied vision. They recognized language as a malleable resource for communication. As such, the application of this resource would vary depending upon the context. A particularly critical development by Halliday *et al.* was the identified concept of register analysis, a definition of language as dependent on setting or environment. Therefore, what was needed was a theoretical framework that would allow language to be tailored for unique interactions. It was via the employment of this new approach that set the stage for the development of EAP.

### **Statement of the Problem**

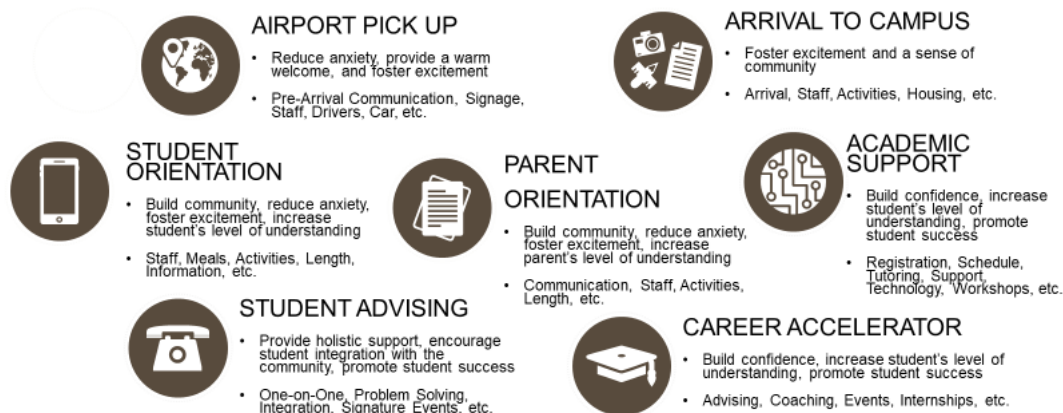
While the development of EAP has armed educators to address the language gap for international students, the International Accelerator Program (IAP) takes it one step further to address acculturation issues on American college campuses.

Existing in what is referred to as the cross-section of higher education customer services, the Panther IAP focuses on seven key signature experiences aimed at cultivating and

strengthening the relationship the student has with the university. These areas are:

### **The Signature Key Service Areas**

The cross section of customer service and higher education



By fostering a sense of belonging from the moment the student arrives, along with eliminating confusion from the onboarding process, the IAP is designed to provide a secure and comforting experience. The goal is to reduce anxiety and establish a relationship of trust.

In many ways, international students, particularly undergraduate international students, face similar challenges as U.S. students in adapting to a new culture and environment, such as living away from home for the first time (Zhao, Kuh, & Carini, 2005). But they can also experience difficulties that are more specific to students adapting to a new culture and educational system. (Bochner, 2003; Fritz, Chin, & DeMarinis, 2008; Koltko-Rivera, 2004). Another issue is that international students often do not take advantage of campus resources to help them be successful (Tas, 2013; Sumer, 2009).

To help these international students, some institutions, Panther University included, have established international accelerator programs that are designed to support international students, not just with the English language, but with a menu of resources aimed at student success and acculturation.

## **Purpose of the Study**

The purpose of the study is to analyze whether the first-year of the international accelerator program for undergraduate international students at Panther University had a significant impact on adaptation to the university and U.S. culture for students enrolled in the university's inaugural IAP in Fall 2016. Adaptation is defined many ways. Berry (1997) has characterized adaptation as how well the new member of the culture is able to *fit* into the mainstream cultural environment. Castro (2003) describes adaptation as "the process of adjustment to the conditions in the environment," as well as "the development of cultural and social skills, sensibility to the beliefs, values, and norms of the new culture and the acquisition of adequate communication skills for interacting effectively with the host-culture" (2003, p. 13).

## **IAP: Research Questions**

Although a wide variety of questions can be posed related to the subjects of international students, their adaptation to U.S. university life, and IAP's, this research study will be limited to the following questions:

1. Did participation in the IAP lead to gains in academic and cultural adaptation for the international students enrolled in the IAP?
2. Through what channels does the IAP improve student satisfaction with their education? Specifically, what type of academic and cultural adaptation improvement predicts a higher satisfaction with the university?

CHAPTER 2  
LITERATURE REVIEW

**IAP: Addressing Student Difficulties**

In 1980, fairly large-scale research was conducted at Cambridge University (Geoghegan, 1983) into the language difficulties of overseas students, both undergraduates and postgraduates, during their first term. It will be seen from the summary table below that spoken language, writing and taking notes in lectures created the biggest problems.

<i>Rank order of difficulty: All students</i>	<i>percentage declaring area most difficult</i>
1. Participating in seminars	28%
2. Written work	23%
3. Oral expression	14%
4. Taking lecture notes	11%
5. Understanding lectures	9%
6. Reading at adequate speed	4%

(based on Geoghegan, 1983)

This research, in a sense, summarizes other surveys that have been conducted before or since, at least in the context of NNS students studying at universities in the UK and US. Invariably, it is the same three broad areas of study skills that appear as the major causes of difficulty for students, i.e. listening and speaking in seminars, academic writing, and listening, with understanding, and note-taking in lectures.

Presented below are research findings that have focused on the details of these broad areas.

**Difficulties with Spoken English**

A survey of the spoken English problems of overseas postgraduates at the Universities of Manchester and Newcastle (Jordan & Mackay, 1973) showed that on arrival in the UK, *understanding spoken English* was the biggest difficulty for 70% of the postgraduates taking part

in the survey. Six months later it had fallen to second place (39%). Expressing themselves in *speech* (involving fluency and self-expression) was the second biggest problem for 48% of students on arrival. After six months it had become the biggest problem, for 42%.

The more persistent problem for the students was the inability to express themselves adequately in the spoken language. One factor was that, for various reasons, the students spent little time in actually speaking English in a typical day, i.e. there seemed to be little opportunity to practice. Fifty-six percent of the students said that they had not met as many native speakers of English as they would have liked.

The above findings were largely borne out by Blue (1991) who conducted a questionnaire survey of foreign students at Southampton University, 1988-1989. Jordan's and Blue's surveys found that a large proportion of the students spent one hour or less per day speaking English to NS and, sadly, that a sizeable proportion had made no NS friends. By the middle of the academic year, both surveys found that speaking in the classroom was the area of greatest difficulty. The overall pattern of both these surveys corresponds closely with that found at Cambridge University, reported above.

In an American survey, Johns (1981) noted that listening was ranked first as a requirement for success in university by more than 50% of the staff. A large-scale investigation was conducted at Yarmouk University, Jordan (Zughoul & Hussein, 1985). Students and faculty members completed questionnaires. Both students and staff agreed that the most needed skill for success at the university level is listening comprehension. These are examples of target-situation analysis. The following is an example of present-situation analysis. In another survey, at five universities in the US, foreign students were asked to list skills in order of difficulty: speaking was first (35%), closely followed by listening (32%) (Christison & Krahnke, 1986).

The international accelerator program at Panther University takes specific steps to address the difficulty with spoken English for English learners. Depending on the student's admissions level (as determined by their English placement scores), students will be placed into a combination of integrated and non-integrated sections. More clearly, the IAP students studying with Panther International take English classes that are closed to IAP students only, in addition to classes that are integrated with native English speakers. By providing English learners with the 'safe' environment of closed sections along with the integrated experience, we have increased the opportunity and likelihood of IAP students using English inside and outside of the classroom. This, in turn, fosters a deeper comprehension of the English language.

### **Difficulties with Academic Writing**

Written work has been referred to as being one of the principal causes of concern for non-native English speaking students. One study (Jordan, 1981) looked at the writing difficulties of foreign postgraduates attending writing classes at a university in the UK. On a six-point scale, ranging from 'no difficulties' to 'a lot of difficulties,' they were asked to comment on their writing problems in the higher ranges of difficulties. The results show a recognized difficulty with vocabulary, style and spelling, rounding out the top three:

#### **1. Students**

Vocabulary	62%
Style	53%
Spelling	41%
Grammar	38%
Punctuation	18%
Handwriting	12%

A similar questionnaire was given to academic staff teaching the students, asking what caused *them* the most difficulties when reading the writing of foreign students (2 below).

#### **1. Staff**



Style	92%
Grammar	77%
Vocabulary	70%
Handwriting	31%
Punctuation	23%
Spelling	23%

Style, grammar, and vocabulary appear to cause the staff a higher level of difficulty than the students: the predominance of academic style, in particular, should be noted. Spelling bothers staff less than it does the students but, understandably, handwriting poses more problems for the staff than students.

A different aspect of writing difficulties was explored by Bloor and Bloor (1991) who analyzed the writing of foreign students at Warwick University and their retrospective views of their expectations about writing in English. The Bloors' investigation provides a link with the problems of learning styles and culturally different norms. They found that 50% had expected to be assessed on the basis of objective-type examinations and not on the basis of written term assignments. These false expectations stem from the fact that many students may believe that universities have universal academic conventions.

The Bloors also noted the problems that can be caused by unintentional plagiarism through lack of awareness of the need to acknowledge all sources in the writing of essays or research reports. They observed that:

There are clearly identifiable cultural differences in the degrees of directness and concession permitted (or encouraged) in academic writing in different languages. (1991 p. 48)

They give examples of some students being unaware of the need to use hedged propositions. They had been taught to write directly and to avoid modification in essay writing in their own language. In these cases, some of the students' difficulties can be solved by direct instruction and explanation – which has to be given by the IAP teachers.

To address the student and faculty issues regarding academic writing, the IAP at Panther University employs a technique known as ‘writing in the disciplines’ (WiD). Traced back to a 19<sup>th</sup>-century program at Harvard University (Deane & O’Neill, 2011: 5), WiD has the students practice their writing within the context of their area of study, as opposed to a conventional dedicated English class. The AUI English course faculty will design their course assignments to incorporate writing assessments that leverage the variety of student majors. A major benefit of this approach is the proximity of student and discipline which enables students to learn at first-hand how their specific degree operates.

### **Difficulties with Note-Taking and Study Skills**

For non-native speakers of English, classroom note-taking and basic study skills prove to be a source of concern. In a survey of foreign students in higher education in Britain, Campbell (1973) reported that:

About 85 per cent of the student interviewed complained of the difficulties faced in their studies, whether it be ‘language’ or ‘difficulty in taking lecture notes’ ... Practically all students admitted that at first there was a problem comprehending lectures because of the lecturers’ accents. (p.50)

Jordan (1997) maps out specific recommendations to address the study skill deficiency among the EAP student population. In addition to the study skill fundamentals of time management, logical thinking, and technical proficiency, the AUI program incorporates a specific course section entitled, “Live, Learn and Grow.” This course brings the study skill focus into the post-internet age and compliments the basics with an acculturation component that aims to refine ‘common reasoning and interpreting processes underlying communication which help us to understand discourse’ (Hyland 2006).

### **Difficulties with Reading**

Although the research at Cambridge University (Geoghegan, 1983) showed reading to be

a relatively minor problem for students compared with the other three main areas, nevertheless, the most important *need* of students is the ability to read textbooks and source materials. This ‘need’ is verified by 90% of students surveyed by Ostler (1980). In a similar survey among faculty members in Saudi Arabia, Hohl (1982) found that reading was ranked first by 48% as a requirement for success in college. In the majority of self-assessment tools, students almost always identify reading as their strongest skill. However, this does not mean that students are problem free concerning reading ability. The most usual difficulty is that indicated in Geoghegan's analysis at Cambridge (1983), i.e. an inability to read at adequate speed (also borne out by other surveys viz. Jordan & Mackay 1973 and Blue 1990).

One early study (Plaister, 1968) reported on a reading course for foreign students which contained timed reading exercises: “Most of our students are word-by-word readers and, as a consequence, read at very low rates – 125 to perhaps 150 words per minute.” (p. 3).

Probably the first exponent of reading speed techniques, and the writer of a course in faster reading for use overseas was Fry (1963a and b). He distinguished three kinds of reading speeds and then compared the performance of a poor reader and a good reader. This is tabulated below (Fry 1963a). Fry founded his reading speeds on those acquired by students before and after participating in the courses; he regarded 250 wpm as an attainable minimum.

<i>Speed</i>		<i>Poor reader</i>	<i>Good reader</i>
Slow	<i>Study reading speed</i> is used when material is difficult and/or high comprehension is desired.	90-125 wpm 80-90% comp.	200-300 wpm 80-90% comp.
Average	<i>Average reading speed</i> is used for everyday reading of magazines, newspapers and easier	150-180 wpm 70% comp.	250-500 wpm 70% comp.

Fast	text-books. <i>Skimming</i> is used when the highest rate is desired. Comprehension is intentionally lower.	cannot skim	800 + wpm 50% comp.
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#### THE THREE SPEEDS OF READING

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Fry's reading course (1963b) is based on thirty timed reading passages, followed by multiple-choice comprehension questions. Such courses often bring gains in reading speed and comprehension rate immediately after completion, but longer-term benefits are less clear (Beard & Hartley, 1984).

The IAP at Panther University focuses on reading outcome as a means to assist AUI students with their reading speed, proficiency, and overall reading effectiveness. For instance, it has proven to be more helpful and authentic to say 'Note down the publication details of the text' rather than 'Scan the imprint page to find the publication details.' Similarly, students in an academic context are more likely to ask 'What's the main point?' than 'Skim the text to find out the main point.' The reading sub-skills of skimming and scanning may be taking place, but the focus is on the task, which is likely to involve a complex and varied suite of skills than just one (such as skimming). The pedagogy of focusing on sub-skills such as skimming and scanning 'reflects a particular view of the reading skill that may not necessarily take account of all the areas of knowledge that converge while processing and deriving discourse from academic texts' (Bruce 2011). In other words, academic reading involves a complex set of processes, and it is more effective and realistic to focus on the reading outcome and task rather than using metalinguistic terms like 'skim' and 'scan.'

#### **Difficulties with Listening**

Among IAP students and their teachers, listening is instinctively seen as an important

skill to develop. Given the highly communicative nature of academic discourse and interaction with other people in academic contexts, students are generally motivated to improve their listening. Yet there has been far less research into listening (and speaking) compared with academic writing and reading. Flowerdew points to the limited amount of research on academic listening (Flowerdew 1994), a view echoed by Lynch, who quotes Vandergrift as saying ‘listening remains the least researched of the four skills’ (Vandergrift 2006, p. 191 in Lynch 2011). Field also observes that listening is ‘undervalued’ and its methodology ‘little discussed, researched or challenged’ (Field 2008, p. 1).

Given the central position of listening in academic contexts, the development of students’ general and academic listening skills is typically a major focus of IAP instruction. In both practical and pedagogical terms, it is useful and efficient for students to develop their listening independently, in conjunction with in-class work.

The IAP at Panther University leverages the Classroom-based listening environment to allow the IAP faculty to develop the students’ listening skills in a defined way. A useful model is to focus intensively in the classroom on a carefully selected listening text with accompanying tasks; assess all students’ effectiveness in task achievement, and then provide further resources and tasks targeted at students for independent study. Ideally, the faculty member will individualize to some extent through language/delivery, content, and task.

Under normal circumstances, a listening-based lesson falls into three phases: before listening (preparation); while listening (practice); and after listening (development or extension). To maximize the use of classroom time and student independence, some of the before and after listening tasks can take place outside of the classroom. The tasks can be negotiated with the students to enhance purpose and motivation.

For any success in listening to be attained, the student has to understand the input to some extent. This in itself is a complex and challenging process. Given the limitations of the human memory, the IAP faculty at Panther use tasks which require the student to record part of what they listen to. By effectively understanding and interpreting their input, IAP students are well-placed to record the points relevant to their purpose.

### **Needs-Driven Approach to Materials**

EAP is widely considered to be a highly needs driven branch of English language teaching (see for example Strevens 1988, in Flowerdew & Peaschock 2001). Arguably, all English language teaching is driven by needs to some extent, although these needs could be based on assumptions about the future (the possibility of needing English later in life, for example). For EAP students, however, the needs are immediate and definable (the average Panther EAP student begins his or her academic program in three month's time). The process of identifying students' needs is not necessarily a straightforward one: it can be extremely comprehensive, resource intensive, and time-consuming; alternatively if done more superficially it can be quite quick and manageable.

Any needs analysis should take account the EAP teaching context, particularly concerning its parameters, which include the following:

- Length: time available for the whole EAP program
- Timings: time available for EAP classes on a daily and weekly basis
- Resources: rooms, equipment, technology, facilities, access to services including libraries
- Staff: profile including experience of the EAP teaching staff who will deliver the program
- Management: institutional management of the EAP program and the wider institutional

support

These parameters demonstrate the importance of undertaking a needs analysis which takes into account the target situation.

Jordan outlines a number of methods of collecting data for needs analysis. These include the following:

Advance documentation; language test (in home country and/or on entry); self-assessment; observation in class and monitoring; class progress test (and error analysis); surveys: profile ( questionnaires); structured interview; learner diaries/journals; case study; end-of-course test; evaluation/feedback (questionnaires; discussion); follow-up investigations; and previous research. (1997, p. 30-39)

The purpose of a needs analysis is to inform the learning curriculum and schemes of work.

The current thinking in EAP instruction emphasizes the importance of authenticity. Alexander, Argent and Spencer, for example, point out that the use of authentic materials is not only essential but ‘intrinsically motivating for students’ (Alexander, Argent & Pencer, 2008). Grellet’s observation in 1981 that teachers ‘should grade exercises rather than texts’ (Grellet, 1981, p. 8) has influenced materials writers in a wide range of English language teaching contexts since that date. Seminal research by Swales (Swales 1990; Swales & Feak 2004) maps out the rhetorical structure of academic texts such as research papers as scaffolds for students to produce their own work. A major aim of EAP students is to gradually acclimatize and integrate into the discourse community of their discipline. An added level of complexity is that EAP classes are made up of students from a variety of disciplines (for example, business, biology, public health, etc.). For the EAP teacher, a challenge is to locate texts for their classes that have varying degrees of discipline heterogeneity.

In keeping with the needs-driven nature of EAP, the program at Panther University captures authenticity by selecting texts which students need to be able to read: those in their

discipline. While certain genres are more prevalent in particular disciplines, there is one genre which is near-universal in its reach: the textbook. Textbooks provide the EAP faculty unique opportunities to develop carefully staged and scaffolded tasks to serve appropriate learning objectives

### **Role-Play in EAP**

Every teaching environment offers possibilities and limitations for learning. Consider the following from Dudley-Evans (2001):

For ESP courses to be successful and to have a lasting effect to study or work using English, the environment in which English is taught versus that in which it is used must be assessed. For example, if learners are used to rote learning, it may be that a problem-solving approach ... will be alien to their learning styles and contrary to their expectations. This does not mean that problem-solving approach cannot be used, but it would be more effective if the factors that militate against its use are known and allowed for.  
(p. 31)

To account for the discrepancy between the environment where English is taught vs. used, role-playing can be a valuable resource.

Within the EAP classroom, role-play or case studies can be an effective tool in recreating an authentic language engagement. Huckin (1988) stresses that role-play can contain a 'realistic, complex, ill-defined problem that has many possible solutions, none of them ideal.' Huckin makes the case that activities of this nature entail what he terms *higher-order reasoning*. The real benefit is that:

The student is placed in a situation where his linguistic needs exceed his linguistic resources. He is thus driven to seek help from the language teacher and, which is perhaps even more important for the development of communicative competence, to develop strategies that allow him to engage in communication despite linguistic shortcomings. (1988, p. 43)

EAP faculty at Panther University are encouraged to find creative ways to enhance the



learning experience. Role-playing is one such way where we have found success.

### **The IAP and Student Autonomy**

Within the history of IAPs, a number of writers have identified the need for differing levels of learner individualization (e.g., Brookes & Grundy 1988; McDonough & Shaw, 1993). The basic idea behind this position is that, particularly for students in short IAPs, the EAP learning needs to continue into their traditional coursework. As such, these students will only be able to succeed if they have been provided the necessary skill set for autonomous language learning (Kennedy & Bolitho, 1984).

Dickinson (1987) discusses in detail the means by which an EAP teacher can foster autonomous learning. He uses the blanket term *self-instruction* to cover a number of situations in which students work ‘without the direct control of a teacher.’ For Dickinson, the main labels are:

- *Individualized instruction* (methods and materials adapted for an individual);
- *Self-direction* (the learner makes decisions but does not necessarily implement them);
- *Self-access materials and learning* (appropriate materials for self-instruction);
- *Autonomy* (the learner is totally responsible for decisions and their implementation).

For success beyond the IAP, the approach at Panther has been to make autonomy a principal aim of the program. By creating an environment that provides students the resources to continue the learning process post-program, we significantly increase the likelihood of student retention and graduation.

## CHAPTER 3 METHODOLOGY

This chapter provides a description of the research methodology used for this study. The chapter begins with a restating of the research questions, followed by a description of the study design, and an explanation of the student participants. Next comes a sketch of the international accelerator program (IAP), the survey instrument, and the procedures followed for data collection and data analysis.

### **Research Questions**

The following are the research questions that guide this study:

1. Did participation in the Panther IAP lead to gains in academic and cultural adaptation for the international students enrolled in the program?
2. Through what channels does the IAP improve student satisfaction with their education? Specifically, what type of academic and cultural adaptation improvement predicts a higher satisfaction with the university?

### **Study Design**

Due to my inability to randomly assign students to the two separate populations, a nonequivalent control group design was employed to analyze relationships: relationships based on a population of international students in a particular cohort. Specifically, the study assessed how the IAP affected two groups of students over the semester—students who enrolled in the IAP and those who did not. The methods used to conduct these analyses are described later in this chapter.

Most quantitative studies generally include random sampling and experimental research design (Cresswell, 2003). Although this study involved a treatment group and a control group,

the sampling for the participants was not random. Either the students self-selected for the IAP or they did not. (Cook & Campbell, 1979).

### **Participants**

The study's target population was first-year international undergraduate students at a mid-sized, private university based in the New York City area. For the purposes of this document, the university will be referred to as Panther University. All of the participants had an F-1 nonimmigrant student status and completed their high school in educational systems outside the United States.

Since this study is focused on the effects of the Panther IAP for international undergraduate students, the potential participants included first-year undergraduate international students who started their academic programs at Panther University in Fall 2016 and either enrolled in the IAP or did not.

The students enrolled in the IAP served as the treatment group, while the incoming international undergraduate students who did not enroll in the IAP served as the control group. The students who participated in the study were from 43 countries. The sample included both male and female students in a variety of majors, with ages ranging from 18 to 26.

### **Instruments**

Two instruments were used:

1. The IAP Experience Survey
2. The IAP Adjustment Survey

#### **IAP Experience Survey**

The IAP experience survey was created by combining the relevant questions from an instrument created by [Shorelight Education](#), supplemented by questions from the Student Adaptation to College Questionnaire (SACQ) by Baker and Siryk (1989).

Several of Shorelight's categories, including Academic Engagement, Exposure to Diversity, Academic English Skills, and Psychosocial Development were developed from the National Survey of Student Engagement 2008 (n.d.). The Academic Adjustment and Cultural Adjustment categories were adapted from Andrade (2009), and the Motivation category was adapted from the Learning and Student Strategies Inventory (Weinstein, Palmer, & Shulte, 2002).

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

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

The *Cultural Adjustment category* was reworked and expanded. The Cultural Adjustment category was split into Cultural Adjustment: Communication with Americans and Cultural

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

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

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

In completing each question, each participant was providing information as to the extent to which the statement applied in their situation, along the five-point scale. As the numbers

increased from “1” to “5,” the applicability of the answer changed gradually from “is not applicable to me” to “is less applicable to me” to “may or may not apply to me” or “only applies to me in some cases,” to “applies to me most of the time” to “this answer solidly applies to me.” Thus, although the actual answers varied across the different categories (an answer of “1” could range from “not at all” to “never” to “strongly disagree” to “poor”), as the answers moved from left to right (along a continuum of 1 up to 5), the level of reported student adaptation increased.

After creating the IAP Experience survey, I provided it to a focus group of six international undergraduate students at Panther University to determine if the questions were understandable to an international student audience. Students believed the questions were suitable for sampling their initial intercultural experience to U.S. university life and would not present problems for international students in terms of readability.

### **Reliability testing using Cronbach’s alpha**

With the data from the students who completed the IAP Experience survey, I was able to conduct a reliability analysis to measure the survey’s internal consistency using Cronbach’s alpha.

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

Since the survey looked primarily at academic and cultural adaptation, when combining

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

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

### **Statistical Analysis**

To answer research question 1, which focused on *whether participation in the IAP led to gains in academic and cultural adaptation for the students enrolled*, I used a statistical software package to conduct a repeated measures t- test analysis to compare the means of 13 of the 14 categories of the survey. The Cultural English Proficiency was not analyzed because the questions for this category were changed substantially from the September to the December versions of the study and were not compatible for analysis.

To create the mean for each of the 13 adaptation and satisfaction categories, the scores for the questions that comprised each of the categories from each student respondent were combined. For example, each of the scores from the six questions for the Academic Engagement category (making a class presentation, meeting with an academic advisor, meeting with a

professor/teaching assistant outside of class, working with classmates in class, working with classmates on projects outside of class, and attending academic lectures outside of class) were combined.

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

### **Effect size analysis**

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

### **IAP Adjustment Survey**



The IAP adjustment survey was used to answer the second research question: *what were the changes in terms of international student adaptation for the students enrolled in the Panther IAP?*

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

### **Reliability analysis using Cronbach's alpha**

Since there were changes between the IAP Experience Survey and the IAP Adaptation Survey, a reliability analysis using Cronbach's alpha analysis was conducted on the IAP Adjustment Survey data. For each of the 14 categories, the alpha measurements ranged from .78 to .92. The scores for the Academic Adaptation, Cultural Adaptation, and the Satisfaction scales were .82 for all three scales. The alpha score for the entire survey (a combination of all three scales) was .86. The results are discussed in more detail in Chapter Four.

### **Multiple regression analyses with control and treatment sample**

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

To fully have confidence in a multiple regression analysis, that regression must satisfy

four key assumptions. The first is that a linear relationship exists between the dependent and independent variables. The second assumption is that variables are normally distributed. The third assumption is that no multicollinearity exists between the independent variables, meaning that these variables are not highly correlated with each other. Finally, the assumption of homoscedasticity points to the importance of the error term's variance not moving upward or downward between the independent variables (Osborne & Waters, 2002).

### **Effect size analysis**

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

## CHAPTER 4 RESULTS

This chapter summarizes the results from the data collected and analyzed from first-semester undergraduate IAP students at Panther University during Fall 2016 utilizing a repeated measures t-test for students in the IAP and then by an independent samples t-test and multiple regression analyses of the IAP Adjustment Survey of students enrolled and not enrolled in the IAP. The chapter begins with a restatement of the research questions then moves into a detailed analysis of the findings from the IAP Experience Survey and the IAP Adjustment Survey.

### **Research Questions**

This quantitative study was undertaken to examine the effectiveness of the International Accelerator Program as a strategy to enhance the academic and cross-cultural adaptation of undergraduate international students at Panther University by assessing their academic and cultural scores on two versions of an international student adaptation survey.

The study research questions include:

1. Did participation in the IAP lead to gains in academic and cultural adaptation for the international students enrolled in the program?
2. Through what channels does the IAP improve student satisfaction with their education?  
Specifically, what type of academic and cultural adaptation improvement predicts a higher satisfaction with the university?

This chapter describes the results from analyses conducted on two data points from the same survey: (1) 79 September 2016 and December 2016 paired responses to the IAP Experience Survey from enrollees in the Fall 2016 IAP

(2) 115 September 2016 responses from the IAP Experience survey, along with 92 December 2016 and January 2017 responses to the same survey by first-year

undergraduate international students who were eligible to enroll in the IAP but chose not to enroll.

### **IAP Experience Survey**

The goal of the IAP at Panther University is to educate, acculturate and support new undergraduate international students in their academic and cross-cultural adjustment to Panther University and U.S. culture. The goal of the September and December survey for students enrolled in the IAP was to answer the first research question, which focused on the impact the program had on the students' academic and cultural adaptation to their new environment.

#### **Reliability Testing Using Cronbach's Alpha**

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

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

Table 4.1

*Cronbach's Alpha Calculations for the September and December IAP Experience Survey*

Categories/Scales	September Cronbach's $\alpha$ Percentage	December Cronbach's $\alpha$ Percentage
<b>Academic Adjustment Scale</b>	.95	.79
Academic Engagement	.81	.85
Academic English Proficiency	.93	.92
Academic Success	.91	.92
Personal Motivation	.84	.86
Thinking and Learning Abilities	.91	.90
U.S. Higher Education System	.93	.93
Use of University Resources	.89	.90
<b>Cultural Adjustment Scale</b>	.94	.80
Communicating with U.S. Culture	.92	.90
Cultural English Proficiency	NA	.88
Diversity Engagement	.88	.88
Social Engagement	.89	.83
U.S. Culture Engagement	.89	.88
U.S. Peer Engagement	.91	.78
<b>Satisfaction Scale</b>	.93	.82
<b>Entire Survey</b>	.95	.86

## **Paired T-test Survey Analysis**

Unlike the IAP Adjustment survey, which compares students enrolled in the IAP to students not enrolled in the IAP, the IAP Experience survey focused on a group of the same 79 students in the IAP who completed both the September and December versions of the survey. The goal of the t-test analysis was to decide whether there were significant changes in the responses for the IAP students between the September and December surveys. Therefore, a repeated measures design and a paired t-test analysis was used. In general, t-tests are used to determine if two groups of subjects differ significantly in some way and if that difference is a result of random chance (Urdu, 2010). In this part of the study, the group is the same but their responses are separated by time, and it is these two sets of responses that are analyzed.

The paired t-test analysis was conducted on 13 of the 14 categories of the IAP Experience survey (not including the Cultural English Proficiency category as explained below). Along with the demographic questions, the survey was divided into three scales: seven categories comprising the Academic Adjustment scale (Academic Engagement, Academic English Proficiency, Academic Success, Personal Motivation, Thinking and Learning Abilities, U.S. Higher Educational System, and Use of University Resources); five categories comprising the Cultural Adjustment scale (Communicating with U.S. Culture, Cultural English Proficiency, Diversity Engagement, Social Engagement, U.S. Cultural Engagement, and U.S. Peer Engagement); and the one category that comprises the Satisfaction scale (Satisfaction). To account for the problem of multiple comparison, a stricter significance criteria was chosen ( $\alpha = 0.01$ ).

Table 4.2  
*T-Test September and December Results from The IAP Experience Survey*

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

Table 4.2, continued

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

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

As shown in Table 4.2, the results of the t-test analyses indicated that ten of the thirteen adaptation categories, plus the satisfaction category were significant. In detail, the mean differences for four of the six academic adjustment categories were significant, along with the Academic Adaptation Scale: Academic Engagement ( $p < .001$ ), Academic Success ( $p = .005$ ), Personal Motivation ( $p = .002$ ), U.S. Higher Education System ( $p = .002$ ), and Use of University Resources ( $p = .001$ ), plus the Academic Adjustment Scale ( $p < .001$ ). The two categories that were not statistically significant were Academic English Proficiency ( $p = .041$ ) and Thinking and Learning Abilities ( $p = .013$ ).

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

### IAP Adjustment Survey



Having used a t-test to analyze data from the IAP Experience Survey to measure the impact of the IAP on enrolled students, the emphasis now shifted to the IAP Adjustment Survey. The Adjustment Survey compares the perceptions of students enrolled in the program (treatment group) against those that are not (control group).

The IAP Adjustment Survey was administered in December 2016 and January 2017 to the treatment and control groups. One change made to the assessment was to add a question to differentiate between the students in the treatment and control groups. Participants were asked if they were enrolled in the International Accelerator Program.

The first analysis with the IAP Adjustment Survey employs two multiple regressions to discover connections between actions, attitudes, beliefs, and skills that tend to promote international student adjustment. The second analysis utilizing the survey uses an independent samples t-test to look for significant differences in survey responses between the two groups of students in terms of the adaptation and satisfaction categories. In the end, the question to answer from these quantitative analyses is whether they tend to show if participation in the IAP can prove to be a significant factor in assisting with international student adaptation.

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

study is being used with two different groups of students to determine how they differ in terms of perceptions of student adaptation criteria.

### **Reliability Analysis Using Cronbach's Alpha**

As has been detailed in Chapter Three, the IAP Adjustment Survey is somewhat different from the IAP Experience Survey. It has some altered questions, added questions, and an expanded set of response data. Therefore, conducting a reliability analysis using Cronbach's alpha to ensure sufficient internal consistency of the survey is merited. The reliability analysis results indicate that each of the adaptation categories and the satisfaction category had at least a .70 alpha score, the minimally accepted score for sufficient internal consistency (Schmitt, 1996). The lowest score was the U.S. Peer Engagement category at .78. The highest alpha scores were for the Academic English Proficiency and the Academic Success categories, both at .92. The Academic Adaptation and Cultural Adaptation Scales also had moderately high scores, both with alpha scores of .82. And combining the three scales resulted in a total survey score of .86. These results are provided below in Table 4.3

Table 4.3

*Cronbach's Alpha Calculations for the IAP Adjustment Survey*

Categories/Scales	Cronbach's $\alpha$ Percentage
<b>Academic Adjustment Scale</b>	.82
Academic Engagement	.83
Academic English Proficiency	.92
Academic Success	.92
Personal Motivation	.84
Thinking and Learning Abilities	.81
U.S. Higher Education System	.85
Use of University Resources	.90
<b>Cultural Adjustment Scale</b>	.82
Communicating with U.S. Culture	.90
Cultural English Proficiency	.88
Diversity Engagement	.88
Social Engagement	.83
U.S. Culture Engagement	.88
U.S. Peer Engagement	.78
<b>Satisfaction Scale</b>	.82
<b>Entire Survey</b>	.86

## **Multiple Regression Analyses with Control and Treatment Sample**

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

However, since none of the survey questions was formulated to precisely ask students their level of adaptation to the academic or cultural life of the university, two survey questions represented these underlying concepts. These two satisfaction scale questions from the survey were used as proxies for levels of academic or cultural adaptation as self-assessed by the survey participants at the end of the Fall 2016 semester—Satisfaction questions 2 and 3, which asked the level to which students were satisfied with either the quality of their education or their life at the university.

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

Table 4.4

*Multiple Regression Dependent and Independent Variables from the IAP Adjustment Survey*

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

Table 4.5

Multiple Regression Descriptive Statistics for Demographic Variables from the IAP Adjustment Survey

		Enrolled in IAP		Not Enrolled in IAP			
		count	%			count	%
Gender	Female	51	44.35%	Gender	Male	30	32.61%
	Male	64	55.65%		Female	62	67.39%
Age group	18-22	106	92.17%	Age group	18-22	87	94.57%
	23-26	7	6.09%		23-26	5	5.43%
	27-30	2	1.74%		27-30	0	0.00%
Location	East Asia	52	45.22%	Location	East Asia	32	34.78%
	Rest of the World	63	54.78%		Rest of the World	60	65.22%
	Total	115	100%		Total	92	100%

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

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

Two additional sets of survey responses not used as independent variables were Major and Immigration Status. With many majors represented in the responses, the decision had first been made to use the variable "College" to represent students' academic direction. These variables included the students' undergraduate colleges at Panther University. But after further consideration, it was decided that the variable "College" did not represent one of the most crucial variables to include as independent variables in the multiple regression analyses. The variable Immigration Status was also not used because 99.03% of the respondents had F-1 status. Thus,

since there was virtually no variability in question responses, that variable was not included in the regression analyses.

Following is a more detailed discussion of the results in terms of statistical significance for the satisfaction with university education and satisfaction with university life regression analyses in terms of specific predictor variables.

### Satisfaction with university education regression analysis

The results from the multiple regression on satisfaction with university education are presented in Table 4.6.

Table 4.6

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

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

Table 4.6, continued

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

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

As shown in Table 4.6, the model accounted for 41.6% of the variance. In terms of demographic variables, none of them was significant. Particularly of interest, participation in the IAP did not prove to be significant ( $p = .421$ ). Of the Academic Adaptation variables, only the Academic Success category was significant at  $p = .015$ . These questions focus on having a positive academic attitude, interacting with professors and students, working to understand the academic culture, knowing how to get help, and engaging the culture by attending class regularly. The questions for this category include:

- I consider myself to be a successful student;
- I understand professors' expectations;
- I understand what constitutes appropriate classroom behavior in the U. S.;
- I understand U. S. classroom culture;
- I know who to ask for help at the university;
- I feel comfortable contacting professors for help;



- I have attended classes regularly;
- I have confidence in my ability to succeed; and
- I understand what I need to do to achieve my goals.

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

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

Therefore, it seems that the elements that could be most helpful from the various survey categories in promoting international student academic adaptation focus on maintaining positive attitudes and working to understand the culture both in and outside the classroom, and through interacting with people, strong interaction (emphasized through other categories) is not the most important element. These concepts are certainly supported in the research literature, which do promote actively engaging with the new culture and being positive (Astin, 1991).

## Satisfaction with university life regression analysis

Results from the multiple regression on satisfaction with university life are presented in

Table 4.7.

Table 4.7

*Multiple Regression Analysis Predicting Satisfaction with University Life from IAP Adjustment Survey*

Variable	<u>Unstandardized</u>		<u>Standardized</u>	<i>p</i>
	<u>Coefficients</u>	<u>Coefficients</u>	<u>Coefficients</u>	
	$\beta$	<i>SE</i> ( $\beta$ )	Beta	
IAP	-0.030	0.086	-0.021	.730
Gender	0.011	0.080	0.008	.888
Age	0.156	0.125	0.066	.215
East Asia	-0.034	0.079	-0.023	.672
<b>Academic Adaptation</b>				
Academic Engagement	-0.068	0.063	-0.084	.283
Academic English Proficiency	0.033	0.079	-0.038	.678
Academic Success	0.292	0.110	0.270	.008**
Personal Motivation	0.099	0.096	0.095	.302
Thinking and Learning Abilities	-0.136	0.078	-0.149	.085
U.S. Educational System	0.016	0.056	0.019	.771
Use of University Resources	0.007	0.060	0.010	.902
<b>Cultural Adaptation</b>				
Communicating with U.S. Culture	0.028	0.111	0.024	.799
Cultural English Proficiency	0.032	0.080	0.037	.691
Diversity Engagement	0.096	0.069	0.119	.169
Social Engagement	0.009	0.079	0.011	.906
U.S. Cultural Engagement	0.506	0.104	0.401	<.001**
U.S. Peer Engagement	0.097	0.057	0.117	.088
<i>R</i> <sup>2</sup>				.512
$\Delta R^2$				.468

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

Results of the second regression analysis indicated that the model accounted for approximately 47% of the variance predicting satisfaction with university life, a slightly higher rate than for satisfaction with university education.

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

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

As an interesting note, some seemingly strong contributors based on the research, such as an emphasis on language skills or a stronger emphasis on friendships or academic engagement were not significant contributors to satisfaction with the academic program or cultural life (neither the Academic English Proficiency, Cultural English Proficiency, or Academic Engagement categories were statistically significant).

## **T-test Analysis with Control and Treatment Sample**

An independent t-test analysis was conducted on each of the 14 categories of the IAP Adjustment Survey, the same categories (this time including the Cultural English Proficiency category) as for the IAP Experience Survey, including the three scales: the seven categories comprising the Academic Adjustment scale (Academic Engagement, Academic English Proficiency, Academic Success, Personal Motivation, Thinking and Learning Abilities, U.S. Higher Educational System, and Use of University Resources); the six categories comprising the Cultural Adjustment scale (Communicating with U.S. Culture, Cultural English Proficiency, Diversity Engagement, Social Engagement, U.S. Cultural Engagement, and U.S. Peer Engagement); and the one category that comprised the Satisfaction scale (Satisfaction). As a part of this analysis, the descriptive statistics, including means and standard deviations for each category and scale, were included.

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

Table 4.8

*T-Test Control and Treatment Group Results from the IAP Adjustment Survey*

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

Table 4.8, continued

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

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

As shown in Table 4.8, for the Academic Adaptation Scale, four categories were statistically significant: Academic Engagement, Personal Motivation, Thinking and Learning Abilities, and Use of University Resources. The  $p$  levels for these categories were <.001, .049, <.001, and <.001 and had varying effect sizes of  $d = .67$ ;  $d = .29$ ,  $d = .50$ ; and  $d = .62$  respectively. Three Cultural Adaptation Scale categories were significant as well with moderate effect sizes: Diversity Engagement ( $p = <.001$ ,  $d = .67$ ), Social Engagement ( $p = <.001$ ,  $d = .52$ ), and U.S. Cultural Engagement ( $p = <.001$ ,  $d = .42$ ). For the scales, the Academic Adaptation and Cultural Adaptation Scales were significant ( $p = <.001$ ,  $p = <.001$ ) and had moderate effect sizes ( $d = .54$  and  $d = .53$ ), but the Satisfaction Scale was not significant.

## CHAPTER 5 DISCUSSION

### INTRODUCTION

The purpose of this study was to determine if the IAP had a significant impact on the academic and cultural adaptation to university life, as well as U.S. culture, of the students enrolled in the program. The practical application of the results of this study is to determine if an IAP for undergraduate international students is a worthwhile strategy for U.S. universities for promoting learning and student adaptation. The IAP developed for new international undergraduate students at Panther University was implemented to provide assistance in interacting with faculty and U.S. students, and enhancing opportunities for student engagement and success.

Quantitative methods—a repeated measures samples t-tests, an independent measures t-tests, and two multiple regressions—were used to analyze two surveys using almost the same set of questions. The analysis covered academic adaptation, cultural adaptation, and satisfaction of first-year undergraduate international students in Fall 2016 at Panther University. The following sections of this chapter will provide a discussion of the results of these quantitative assessments, conclusions, implications, limitations, and describe recommendations for practice and recommendations for future research.

### **Discussion**

This section will discuss results in terms of the study's two research questions. The first research question focused on whether participation in the IAP program resulted in enhanced academic and cultural adaptation for the international students enrolled over the course of the Fall 2016 semester. The second research question focused on what were the changes in terms of international student adaptation for the students enrolled in the IAP.

## **Research Question 1**

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

### **Academic connection.**

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

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

By providing both lecture and recitation sections, the IAP used a format that the international students were familiar with, but also a new format that actively required more interaction. The lectures provided timely and useful information in a format comfortable for most



of the international students. In contrast, the recitation sections were small groups of 10 – 15 international students. These sections required reflection papers, extensive question and answer sessions, field trips, activities, and in general were very much student- rather than instructor-centered.

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

### **Academic exploration.**

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

The IAP Experience survey results showed that by the end of the program, the new international students were engaging in actions, behaviors, and attitudes that promoted academic

success at a significantly higher level than at the beginning of the course. These actions, attitudes, and behaviors included a better understanding of appropriate classroom behavior and culture, what the instructors expected of them, and having a good idea of what is required to be a successful student.

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

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

## **Cultural connection.**

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

Current literature on international students consistently describes new international students as believing that they will have U.S. friends when they come to U.S. universities (Fletcher, 2013; Larmer, 2017). However, once they arrive, they come to understand that communicating with U.S. students is more difficult than they had thought (Kovtun, 2010). The root of this difficulty is usually either a student's inadequate English proficiency or lack of confidence in English proficiency. In addition to the targeted English language training, the curriculum of the IAP was designed to help combat this issue. Students were taught about culture shock, how to interact with U.S. culture, and were given the task of interviewing a U.S. student. They were encouraged to speak in class and begin reaching out to connect with U.S. students.

Survey results also indicated that over the course of the semester they had actually begun to interact with students of differing backgrounds and made efforts to learn about U.S. diversity issues. The student responses indicated that the students had significantly higher interactions with people different from them by the end of the course. This category had the highest effect size of all categories in either survey at 1.04.

Another element of cultural connection is how much students were engaged in the social

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

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

The four significant categories comprising this theme to some extent represent a continuum of engagement. The Communicating with U.S. Culture category concentrates on becoming comfortable engaging with U.S. students and others. The Diversity Engagement category emphasizes taking the initiative to speak to others different from the individual international student. The Social Engagement category looks at interacting with more than one

person at a time, with groups, and even becoming involved in a group. Finally, the U.S. Peer Engagement category emphasizes more purposeful interactions with U.S. students, such as meals and visits.

### **Cultural empathy**

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

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

The IAP provided opportunities to help students learn and explore. In the support classes, students were asked to write about their interactions with people in the community and discuss how those interactions were both positive and negative. There were lectures on safety, managing money, getting a job in the U.S., and the health care system—all in a U.S. context. These learning opportunities helped students explore their new culture. The survey results showed that

students were significantly more comfortable dealing with cultural ambiguities and more willing to explore and reflect on what they were learning.

## **Research Question 2**

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

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

### **Adaptation grounded in the literature**

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

The dependent variables used in the regressions to represent academic and cultural adaptation were two satisfaction category questions asking about satisfaction with university education and university life. The demographic variables of participation in the IAP, gender, age, and world region of origin were the independent variables, along with the 13 adaptation categories. None of the demographic variables was significant for either regression. The

significant categories for predicting satisfaction with university life were Academic Success and U.S. Culture Engagement. These were the same two categories that were significant for satisfaction with university education as well.

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

One reasonable question is why were only two adjustment categories significant for both of the multiple regression analyses? Each of the 13 categories represented some concept or combination of concepts that can be significant contributors to international student adaptation based on current literature. They varied from engaging with people in academic or cultural settings to learning about cultural differences (especially among people), to enhanced English proficiency, to motivations and actions to succeed and achieve goals, to understand how the culture works, and how and where to obtain resources and help. None of the demographic variables of gender, age, or world region was significant. But neither was participation in the IAP significant.

One potential answer for why more variables were not significant is that the time frame for the study was too short. This point is discussed in more detail in the Conclusions section below. The key point is that existing literature (Andrade, 2009; Clark, 2005) and models of

adaptation, acculturation, and cultural transition, including Berry's (1997) Acculturation model, Oberg's (1960) Culture Shock model, as well as Astin's (1993) I-E-O model indicate that adaptation is not an overnight process. The Fall 2016 semester was roughly 3.5 months. Expecting students mostly age 18 to 22 (93.24% of the sample) to fully or considerably adjust to a new culture in that length of time is probably not realistic.

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

Another potential answer is how the students answered the survey questions. This study is not built predominantly around defined facts or data (except for the demographic data of student characteristics, such as age, gender, major, college, or immigration status), but based mostly on student perceptions of their attitudes and levels of engagement, comfort, proficiency, or skills. For the students enrolled in the IAP completing both the September and December versions of the survey were program requirements. But no instructor or recitation leader checked to see if the students completed the survey, how long they took to complete the survey, or how seriously the students felt about the survey or the assignment. It is also possible that students may not have had a realistic understanding of themselves. They may have rated themselves higher or lower on a survey than a more realistic assessment of their abilities, behaviors, and attitudes might have shown.

### **Academic connection**



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

### **Personal exploration**

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

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

As was described in the Academic Exploration theme above, learning about campus

resources and helping to persuade students to use them is important to their success and adaptation. Some of the IAP activities included having students visit or have tours of certain support services offices or resources (Academic Success Center, University Library, Student Health Center, or the Writing Center). Guest speakers from some of these and other support offices spoke to students during the course. The IAP Adaptation survey results showed that in addition to the IAP students becoming more accustomed to making use of campus resources over the course of the Fall 2016 semester, they did so at a significantly higher rate than did their peers not enrolled in the course.

### **Cultural connection**

The cultural connection theme for the IAP Adaptation survey is based on the significance of the Diversity Engagement and Social Engagement categories. Similar to Cultural Connection theme based on the IAP Experience survey results discussed above, these categories from the IAP Adaptation survey still emphasize interacting with others, though this time with a greater stress on diversity and group interaction than more individual interaction as exhibited with Communicating with U.S. Culture and U.S. Peer Engagement. Based on the survey assessment, the participants in the IAP were more comfortable interacting with others outside their country group (though technically they could have scored their answers on the Social Engagement questions to reflect high social activity only with their country peer group) and with others not like them. As mentioned above, the IAP lectures and activities stressing diversity and involvement in campus life seemed to have had an effect.

### **Cultural empathy.**

The U.S. Culture Engagement category was once again significant and points to a key difference between the treatment and control groups in their ability to move and their ease in

moving beyond their comfort zone in working to see the world from another cultural perspective based on what they learned from the IAP. While the cultural connection theme emphasized the group nature of communicating with others in the new culture, this theme highlighted the more personal nature of the journey for cultural discovery.

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

## **Conclusions**

### **Substantial Learning but Limited Adaptions**

The discussion section above outlined the various themes that emerged from the two surveys. For Research Question 1, the themes certainly seemed to point to the fact that student learning took place. Ten of the adaptation categories and the satisfaction category were significant. However, does this mean that student adaptation occurred?

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

frame on this process, he does imply that this is not a quick process.

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

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

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

Therefore, it seems safe to say that the treatment group is further along in some areas of learning and adaptation than their control group colleagues, but certainly not in all areas. As

discussed for research question 1, the IAP seemed to have provided the student enrollees a jump start for student adaptation, but it did not lead to their being fully adapted to Panther and U.S. culture.

It is of particular note that for the two regression analyses the variable of participation in the IAP was not significant. Said more directly, this says that the “treatment” of participating in the IAP did not seem to significantly contribute to the academic or cultural adaptation of the students who were in the program. The respective  $p$  values (university education  $p = .421$ , university life  $p = .730$ ) were not even close to significance. This point serves to reinforce the argument that the program did seem to support substantial learning but limited adjustment.

### **Results Support Theoretical Framework**

The theoretical framework used throughout the study to analyze international student adaptation has been Astin’s (1993) Input-Environment-Output model. The inputs are the independent variables, particularly demographic variables for students. In this study, these variables included participation in the IAP, age, gender, world region, immigration status, and college. The other independent variables included the student perceptions on the questions of the 13 academic and cultural adaptation categories, which comprised the environmental variables of the model. The output for this model is the dependent variable of student learning, student success, or in the case, student adaptation. For this study, the dependent variables included the levels of satisfaction with university education and satisfaction with university life.

Astin’s (1993) Input-Environment-Output model also is compatible with his other work (1991) which emphasizes the importance of engagement and involvement in college, specifying

that this engagement and involvement requires work and energy and that involvement contributes greatly to academic success . Merging the concepts of the I-E-O model and his Theory of Student Involvement (1884), the four emergent themes from the survey analyses of academic connection, personal exploration, cultural connection, and cultural empathy, which emphasize engagement both with people and culture, mesh well with Astin's (1993, 1984) bodies of work.

## **Implications**

### **International Accelerator Program**

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

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

An institutional IAP would need to be built on the literature, theory, and research (in addition to consulting with local administrators, faculty, and international students to include any

local necessary elements and to conform to any local requirements) that would call for incorporating topics into the curriculum that would be the most important and helpful for the new international students. As was done in the Panther IAP, the curriculum could include opportunities for course instructors and small group leaders to encourage in class participation, group work, brainstorming, and critical thinking—all potential areas of difficulty for new international students. Generally, when international students are part of a course/class with other international students of roughly the same level of English proficiency, they tend to be less inhibited from speaking in class or small group discussions.

### **International Students as a Group and as Individuals**

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

### **Limitations**

The sample size proved constraining. With the smaller sample size, it was not advisable to conduct t-test or multiple regression analyses utilizing the questions that comprised the

academic and cultural adaptation categories. This would have resulted in a large number of independent variable that the sample sizes could not support without an increased risk of Type II errors. For example, while the category U.S. Culture Engagement was significant for the t-test analysis of the IAP Experience survey and both the t-test and multiple regression analyses of the International Student Adaptation survey, we do not know which of the seven questions that comprised the category would have been significant.

The Cronbach's alpha score for this category was .88 for both surveys, indicating a fairly high internal consistency for the category and showing that the different questions are generally measuring the same concept. But the questions deal with (1) a student making his/her way around campus, (2) adjusting to U.S. food, (3) understanding U.S. culture, (4) seeing things from a U.S. perspective, (5) dealing with the climate, and dealing with the new culture's (6) bureaucracy, (7) rules, and laws. Although the latent concept of engaging with culture is understandable, these questions are quite different. Just because a person could easily adjust to climate or laws does not mean that easily adjusting to new food possibilities is inevitable.

This same argument about the constraints on questions from the adaptation categories applies to the demographic variables. One demographic variable, immigration status was not used because 100% of the respondents had F-1 status. Thus, since there was no variability in question responses, that variable was not included in the regression analyses. The six colleges and seven world regions were set up as dummy variables to facilitate their use, but in the end, because of sample size, they were not included as variables. Another limitation was timing. If it had been possible to gather responses from student not enrolled in the IAP in September and compare their responses for September and December as was done for the treatment group students, this would significantly enhanced the study.



In order to account for my inability to randomly assign participants, the students were selected to fit a profile that was as similar as possible to one another. Specifically, the treatment group participants were all voluntary members of the IAP. Moreover, all student respondents, treatment and control group alike, were undergraduates in the business school. While this might have helped to account for the *ex-ante* characteristics of the students, this could also impact generalizability to a larger international student population from a variety of majors.

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

## **Recommendations for Practice**

### **International Accelerator Programs**

As discussed in the Implications section above, this study has added to the current research and literature that recommends that institutions should seriously consider having an IAP for undergraduate international students.

Several arguments are generally heard against international accelerator programs. The first argument is that such a program would slow down an international student's time to degree or that there is not room in a lock-step academic program that has set courses a student must take over the course of that student's academic program to graduate. The next argument is that having a program only for international students runs counter to the goal of having international students

interacting with U.S. students in their courses. A third argument could be that such a program could be too costly to run or require too much time from a faculty member or administrator to manage.

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

### **Multi-tiered Orientation Approach**

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

In many cases, university international student or admissions offices have traditionally provided an orientation program varying from a day to two weeks for their new international student population—and sometimes only for new undergraduate international students. The problem with these conventional orientation programs is that trying to provide all the information new students need in the course of a few days or a week usually results in information overload. Plus, the students are often still suffering from jetlag and are having to

listen to extensive information and detailed instructions in a foreign language. Finally, many of the situations being explained to them, such as how to successfully behave in a U.S classroom, do not have as much impact until the students have encountered these situations.

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

On the other end of the conventional orientation program is some sort of follow up program to “extend” orientation, with the idea of providing continued opportunities for new student learning when the learning will have more relevance for the students. These can be several programs during the students’ first semester, a short study skills course, or a half- or full-semester or trimester program.

The best concept is to do all three of these: pre-arrival information, on-campus orientation, and extended orientation programs that could be incorporated into the IAP. Also administrators and faculty working with IAP students should work to continually improve these courses and as much as possible have them classified as general education requirements and not just another expanded orientation program.

### **Faculty Teaching IAP Courses**

A critical issue for universities regarding international students is finding the right combination of strategies to help international students with adjustment, adaptation, and

acculturation. A major component of this issue is helping international students and U.S. students to be better integrated as one student body of the college or university.

Naturally, the faculty will play a key role in assisting the university to acculturate the international population. And one way to help educate faculty is to have them be part of the team that develops the curriculum and teaches within the IAP. This option would provide opportunities for faculty to gain a better understanding of the issues and challenges international students face and how to better support them. Finding ways to convince faculty who are already busy people with perhaps tenure acquisition, teaching, and researching to worry about may involve some variety of incentives and buy-in from university leadership.

### **A Comprehensive International Student Adjustment Strategy**

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

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

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

### **Recommendations for Future Research**

This research study encompassed one semester of a fall semester for first-year international accelerator program students. To fully analyze the impact of an IAP, it would be best to have several years of data from several cohorts of students, and/or document the perceptions and impressions of a cohort for a longer period than just one semester. Additionally, expanding the sample size both in terms of the Panther University student population with student populations from other U.S. institutions that have IAP's is recommended. Also incorporating different types of institutions—public and private, small to large, religious and secular, community colleges up to doctoral institutions— would assist in being able to generalize to a larger population.

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

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

Additionally, universities seeking to encourage cultural and academic adaptation among the larger international population might consider requiring all international students to participate in the IAP orientation program. Moreover, longer-term considerations could include compulsory IAP workshops that all international students attend on a bi-semesterly basis.

Finally, the recognition has been made above that at least for the present, there are many more institutions using international accelerator programs. Since these types of IAP's are more the norm for U.S. institutions, an examination of how they contribute or do not contribute to international student success, learning, and/or adaptation would be a worthy addition to the literature.

### **Final Note**

New international students come to the U.S. to fulfil their or their parents' dreams of obtaining a degree from a U.S. institution with the hopes that it will provide them advantages either in the U.S. or back home after graduation. They come from across oceans, travel thousands of miles across the world to represent the hopes and dreams of not just themselves, but of their family, town, or village.

Bringing these students to universities like Panther, it behooves the faculty and administrators of the receiving university to take seriously their responsibility to devote enough resources to support these international students through what can often be a difficult or rocky first year at a university. These can be young, scared and weary new world travelers. These young learners bring with them their dollars, their enthusiasm, their energy to U.S. universities in search of their dream. They are owed the best adaptation strategies—such as international accelerator programs—to help them move past that crucial first year and well down the road of adaptation and acculturation, so that they can fully participate in the culture and have a full and rich U.S. university experience, as well as turning their hopes and dreams into realities.

### **Ethical Considerations**

The IAP at Panther University takes great care to preserve the anonymity of any researched and shared data. As the Managing Director of the program, I am tasked with reporting out on the program effectiveness at regular intervals. It is under the supervision of Panther's Office of Student Affairs that our methods have been vetted and approved to meet the University's FERPA standards and protocols.

### **Trustworthiness**

The data to be analyzed for this study are longstanding and verified measures of students' success (GPA, attendance, retention rate, etc.). This includes the testing of English language proficiency via the TOEFL and IELTS examinations.

### **Potential Research Bias**

As an employee of the IAP, I have a vested interest in the assumption that the program is effective and prepares English language learners for success in an American university classroom. To address this internal bias, my study will focus on objective measures to assess

program effectiveness.

### **Limitations**

By definition, the IAP provides support services to students while they are *in* the program. However, once matriculated out, the students are only supported by whatever traditional mechanisms their host university has in place. As such, the long-term effectiveness of the IAP could only ever be determined by the graduation rates of former IAP students.

Moreover, one could raise the question as to whether or not the full support of an IAP program is counterproductive from a student empowerment perspective. In other words, once a student leaves the IAP program, is he or she left unequipped to navigate the systems of a university without the direct support of the program?



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APPENDIX  
INTERNATIONAL ACCELERATOR PROGRAM EXPERIENCE SURVEY

Q1

**Informed Consent Agreement**

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

**Purpose of the research study:** The purpose of the study is to analyze how new undergraduate international students at Panther University adjust over the course of their first semester.

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

If you are enrolled in the IAP, you will be asked to provide a unique identifier so that your results can be linked with your previous results if you completed this survey earlier this semester. Data from this survey will be linked to previous responses from an initial survey administered in the third week of class for students in the IAP. By clicking the "I agree" button below, you are agreeing to allow the researcher to link this survey to an initial survey administered in the IAP.

If you are not enrolled in the IAP, you will not be asked to provide any identifying information unique identifier.

You can skip any question that makes you uncomfortable and can stop taking the survey at any time. If you agree to take the survey, simply start by clicking the "I agree" button at the end of this agreement. If you do not wish to take the survey, click the "I do not agree" button.

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

- I agree
- I do not agree

**Q2 Welcome to the IAP Adjustment Survey!**

**Q3 Panther University IAP Enrollment**

Are you enrolled in the Panther IAP for the Fall 2016 Semester?

- Yes
- No

**Q4 Unique Survey Identifier**

**If you are enrolled in the Panther IAP,** please type in your unique survey identifier in the box below. This will be your birthdate in numbers plus the first four digits of your ISU ID number. The purpose of the unique identifier is so that if you agree to take the survey at the end

of the semester, your data from this survey can be compared to your data from the second survey.

**Q5 Consent Age**

Are you age 18 or older?

- Yes
- No

**Q6 Age**

**Q7 Gender**

- Male
- Female
- Prefer not to answer

**Q8 Country of Citizenship**

**Q9 Immigration Status**

- F-1
- F-2
- J-1
- J-2
- Other \_\_\_\_\_

**Q10 Major**

- Undeclared
- Other \_\_\_\_\_

**Q11 Panther College**

- College of Business
- College of Performing Arts
- College of Education
- College of Liberal Arts and Sciences

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

	Not at All	A Little Bit	Some	Quite a Bit	Very Well
Academic freedom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academic honesty/misconduct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Degree requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How classes work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Levels of education in the U. S.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

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

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

	Never	Rarely	Some of the Time	Often	Very Often
Made a class presentation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Met with your academic advisor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Met with your instructor or a teaching assistant outside of class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worked with classmates outside class to prepare class assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worked with other students on class projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

	Never	Rarely	Some of the Time	Often	Very Often
Had meaningful conversations with students of a different race/ethnicity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had meaningful conversations with students from a different country (but not the U.S.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had meaningful conversations with students of a different religion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had meaningful conversations with students of a different	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

sexual orientation					
Had meaningful conversations with students of different political opinions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had meaningful conversation in class about different aspects of diversity in the U.S	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attended educational events regarding diversity in the U.S.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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