

**UNIVERSITA CATTOLICA DEL SACRO CUORE
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Dottorato di Ricerca in

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Tematica

**Higher Education Internationalisation
and Educational Strategies and Practices**

Ciclo XXXI

SSD L-LIN/12

**THE INTERNATIONAL STUDENT EXPERIENCE: A COMPARATIVE STUDY OF
STUDENT SATISFACTION ACROSS INSTITUTIONS OF HIGHER EDUCATION
IN AUSTRALIA, THE UK, AND THE US**

Tesi di dottorato di: Ravichandran Ammigan

Matricola: 4511707

Anno Accademico: 2017-2018



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ABSTRACT (ENGLISH)

The number of international students has increased dramatically over the last decade at institutions of higher education around the world. This added presence of international students on university campuses has evidently brought a whole new set of responsibilities and challenges for providing effective support services to that community. While many institutions have developed curricular and extracurricular programs to support students in general, not all services are designed to specifically cover the needs of international students. This study evaluates the degree to which international students are satisfied with support services as well as other aspects of their university experience, namely in their arrival, learning, and living environments, while also investigating the relationship between student satisfaction and institutional recommendation for prospective applicants. Using data from i-graduate's International Student Barometer, quantitative survey research methods evaluated the experience of over 45,000 degree-seeking, undergraduate international students at 96 different institutions in Australia, the United Kingdom (UK), and the United States (US). Multiple regression analyses indicated that all four dimensions of satisfaction were positively associated with students' overall university experience and the recommendation of their current institution. Further analyses revealed which satisfaction variables were the most significant aspects of the international student experience, and which ones influenced institutional recommendation the most. This empirical study provides key considerations for university administrators, practitioners, and researchers on how resources might best be allocated to support and enhance the experience of international students, leading to more effective institutional recruitment and retention strategies.

ABSTRACT (ITALIAN)

Negli ultimi dieci anni, il numero di studenti internazionali è aumentato drasticamente presso istituzioni universitarie di tutto il mondo. Questo aumento della presenza di studenti internazionali nei campus universitari ha portato nuove responsabilità e sfide nel fornire servizi di supporto efficaci per la comunità internazionale. Mentre molte istituzioni hanno sviluppato programmi curriculari ed extra-curriculari per supportare gli studenti in modo generico, non tutti i servizi vengono pianificati per soddisfare specificamente le esigenze degli studenti internazionali. Questa tesi valuta il grado in cui gli studenti internazionali sono soddisfatti con i servizi di supporto ed altri aspetti della loro esperienza universitaria, in particolare nel loro arrivo, nell'apprendimento e negli ambienti di vita. Contemporaneamente, la tesi produce una ricerca sulla relazione tra le aspettative degli studenti e i consigli e raccomandazioni delle loro università. Utilizzando i dati dell' *International Student Barometer* di i-graduate, i metodi di ricerca valutativa e quantitativa hanno esaminato l'esperienza di oltre 45.000 studenti universitari internazionali in 96 diverse università e istituzioni in Australia, nel Regno Unito (UK) e negli Stati Uniti (USA). I risultati di numerose analisi statistiche hanno dimostrato che tutti i quattro parametri della soddisfazione sono stati positivamente associati all'esperienza universitaria complessiva degli studenti e ai consigli della loro attuale università. Ulteriori analisi hanno confermato quali variabili di soddisfazione sono risultate negli aspetti più significativi dell'esperienza universitaria di studenti internazionali e quali variabili hanno influenzato maggiormente i consigli universitari. Questo studio empirico fornisce considerazioni chiave per amministratori universitari, professionisti e ricercatori su come allocare al meglio le risorse per sostenere e, allo stesso tempo, migliorare l'esperienza degli studenti internazionali, facendo in modo di sviluppare strategie di iscrizioni e mantenimento sempre più efficaci.

PUBLICATIONS

The following peer-reviewed articles and book chapters were written in alignment with this dissertation. Permission was obtained from the co-authors to either adapt from or reproduce certain sections of these publications. Copies are available in Appendix G.

- Ammigan, R., & Jones, E. (2018). Improving the student Experience: Learning from a comparative study of international student satisfaction. *Journal of Studies in International Education*, 22(4), 283-301.
- Ammigan, R. & Laws, K. (2018). Assessing communications preferences among international students: Strategies for creating optimal engagement. *Journal of International Students*, 8(3), 1293–1315.
- Ammigan, R., & Perez-Encinas, A. (2018). International Student Services. In Teixeira, P. & Shin, J.C. (Eds.), *Encyclopedia of International Higher Education Systems and Institutions* (pp. 1–4). Dordrecht: Springer Netherlands. <https://doi.org/10.1007/978-94-017-9553>
- Ammigan, R. & Schreiber, B. (in press). Student mobility in higher education: A mass movement requiring significant involvement from student affairs and services. In Ludeman, R., Schreiber, B., & Wang, H. (Eds.), *Student Affairs and Services in Higher Education: Global Foundations, Issues and Best Practices*. Paris, France: UNESCO
- Ammigan, R. (in press). Institutional satisfaction and recommendation: What really matters to international students? *Journal of International Students*, 8(3).
- Briggs, P., & Ammigan, R. (2017). A collaborative programming and outreach model for international student support offices. *Journal of International Students*, 7(4), 1080–1095.

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Dedication

I wish to dedicate this work to the memory of my late uncle, Bala K. Armoogum, who was my role model and who inspired me to follow my dreams.

“Du choc des idées jaillit la lumière.” - *Nicolas Boileau*

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CHAPTER 1: INTRODUCTION

1.1 Introduction

International students are an important source of diversity at institutions of higher education as they bring with them new perspectives and help cultivate intercultural awareness and engagement among campus and community members (Banjong & Olson, 2016; Shideh Hanassab, 2006; Lee & Rice, 2007). Although several authors have argued that institutions fail to capitalize on this (Leask, 2010; Montgomery, 2010; Volet & Ang, 1998), the presence of international students on campuses can create more opportunities for increasing their level of interaction across cultures, which can in turn lead to enhanced global competencies, leadership skills, and intellectual development (Luo & Jamieson-Drake, 2013). In this sense, international students can support the broader internationalization efforts of institutions of higher education, defined by de Wit, Hunter, Howard, and Egron-Polak (2015) as

the intentional process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post-secondary education, in order to enhance the quality of education and research for all students and staff, and to make a meaningful contribution to society. (p. 29)

Attracting more international students to campus is one of the top reasons for higher education institutions to invest and engage in international education, besides improving the overall quality of education and preparing students for a global world (Engel, Sandström, van der Aa, & Glass, 2015). The European Association for International Education Barometer Report – EAIE-BR (2015) indicates that there has been a growing trend in international strategic partnerships and activities, including improving the quality of support services and programs provided to international students, as part of the internationalization plans of institutions. However, the EAIE-BR also found that one main challenge faced by professionals working in

internationalization was actually recruiting international students to their respective campuses. Recent changes in political leadership have in turn dictated country policies while immigration regulations for international visa holders have also impacted international student mobility, especially in the United States (US) and the United Kingdom (UK) (Banjong & Olson, 2016).

Over the past few years, many institutions of higher education around the world have prioritized international student recruitment as a source of revenue due to financial pressures (Choudaha & Hu, 2016). In some countries, budgetary cuts and government restrictions for publicly-funded institutions have increased the competition for recruiting international students who are self-funded (Luo & Jamieson-Drake, 2013). For those countries, the ability to retain their market share is unclear due to increased competition and pressure from emerging destination markets and countries with pro-immigration programs, better job placement opportunities, and softer visa policies. Institutions have therefore turned to more aggressive international student recruitment strategies to make up costs and meet their financial goals.

The role of international students in the context of higher education internationalization, however, is more than just increasing numbers and balancing institutional budgets. Wider societal benefits arising from student mobility include preparation for skilled migration, addressing capacity building or skills shortages in either the home or the host country, and soft power support for closer ties between nations (Mellors-Bourne, Humfrey, Kemp, & Woodfield, 2013). In purely economic terms, for instance, a recent study for the UK's Higher Education Policy Institute and Kaplan International (The Higher Education Policy Institute, 2018) found that the benefits of international students to the UK are ten times greater than the costs.

International students can significantly contribute to higher education, not only financially but also culturally in terms of facilitating the development of intercultural

competencies among all students and positively impacting the institution's internationalization efforts (Urban & Palmer, 2014). Moreover, fostering meaningful engagement of international students with the rest of the university community, integrating intercultural perspectives into classrooms, and encouraging domestic students to operate in multicultural groups and teams can enhance the student experience and complement institutional recruitment and retention strategies (ibid 2014). Besides the social and cultural contributions that international students make to their institution, these students also help create jobs and add invaluable scientific innovation and technological improvements to the local community (Academic Credentials Evaluation Institute, 2017).

In an increasingly competitive global market, it is vital that institutions remain attentive to the views, perceptions, preferences, and experiences of international students, particularly in terms of improving satisfaction ratings, which can be a key measure of success and benchmarking even ahead of university branding standards (QS Enrolment Solutions, 2018). The decision to select a destination country or institution is generally influenced by a number of "push" and "pull" factors, which drive international students to leave their home countries to pursue an education abroad (Banjong & Olson, 2016). These determinants include the quality of education, tuition and living costs, scholarship opportunities, post-graduation employment options, health and safety, and learning a different language such as English, which is common in destination countries like the US, the UK, and Australia.

To that extent, some institutions and countries are having to strengthen their strategic approaches to international recruitment and are becoming more aware of the importance of meeting prospective students' expectations about their institutional experience (Verbik & Lasanowski, 2007). Correspondingly, some universities have begun to develop methods and

programs to help their international students acculturate and settle in, including socializing and buddy initiatives, innovative integrated approaches to on-campus services, combined campus arrival dates and orientation programs with domestic students, pre-arrival webinars on topics such as visas and local culture, and training programs for faculty and staff on effective communication practices with international students (Stokes, 2017).

Prebble et al. (2004) propose a series of recommendations for how tertiary institutions can invest in improving the retention and academic success of students through academic development methods and the provision of institution-level support services. Based on their empirical research on student outcomes, the authors suggest that institutions should provide resources and development opportunities for academic staff so they can enhance the professional practice of teaching through methodologies such as short courses for knowledge and skills acquisition; training and reflection within work groups; working with individual members of staff in a consulting or mentoring role; and assisting teachers to learn from the feedback on their teaching they receive from students. The role of support services in students' learning environment, through comprehensive and well-designed programs and initiatives, is also key as it can influence the assimilation, retention and course completion rates (ibid 2004).

One of the original guiding research questions for this study was to evaluate the level of satisfaction with International Student Support offices at institutions in the US. This was mainly due to record-high numbers of international students over the last decade and the urgent requirement to effectively support the needs of this diverse population. However, the scope was later extended to include a broader perspective from Australia and the UK, countries which have been successful at operationalizing innovative models and best practices for supporting international students.

1.2 Statement of Problem

International students are integral to institutional and national reputation, cultural enrichment, and economic gain of host countries and can be a driver for campus internationalization (Forbes-Mewett, 2016). While internationalization is often measured by the recruitment and enrollment numbers of international students, many institutions fail to fully integrate and engage them with the larger university community after these students are admitted and registered on campus (Spencer-Oatey, 2018). Fostering engagement and interactions between international and domestic students can enhance the academic, social and cultural experience for all students on campus. Thus, university educators and administrators must be informed of the relevant implications and policy recommendations so that adequate curricular and extra-curricular resources and support services are administered to improve the “internationalization experience” of all students on campus (ibid 2018).

This dissertation supports the argument that the international student experience can be a driver for recruiting and retaining talented students, and for advancing an institution’s diversity and internationalization efforts. Having international students on campus can also serve as an indicator for developing global and intercultural competence of domestic students, faculty and staff via interactions in the classroom and engagement in other extra-curricular settings. However, for these benefits to exist, institutions must be strategic in incorporating the student experience perspective at all levels of their operations, such as their service mission, faculty engagement, organizational leadership structure, and assessment priorities, so that adequate support services and interventions can be implemented to support such initiatives. This study focuses on institutions and seeks to highlight the different dimensions of experience with which students are most satisfied, using results from a large global survey, the International Student

Barometer (i-graduate, n.d.). It also investigates the different aspects of satisfaction within those dimensions of experience and examines which have the greatest influence on overall student satisfaction and institutional recommendation.

1.3 Purpose of Study

The purpose of this study is to examine the satisfaction level of degree-seeking, undergraduate international students with their experience at institutions of higher education in Australia, the UK and the US. Precisely, it will investigate the relationships between the variables of satisfaction in the various dimensions of arrival, learning, living, and support service experiences. This study will seek to establish associations between students' satisfaction and institutional recommendation. It will also analyze the relationship between the variables of satisfaction across different demographic variables such as age, gender, nationality, field of study, and source of funding. This study's findings provide key considerations and policy recommendations for university administrators, practitioners, and researchers on how to allocate resources that enhance the experience of international students, leading to more effective institutional recruitment, retention, and student success strategies.

1.4 Scope and Limitations

This empirical study investigates the satisfaction of over 45,000 international students with various dimensions of student experience in three different countries. Although this represents a relatively large sample, the study has its limitations. The findings were based on one single instrument which relies on self-reported data. Although the ISB is widely used, other surveys of international student experience might provide different results, especially those administered within an individual institution. The study also represents "a snapshot in time and must be considered in terms of the changing nature of student expectations and increasing

sophistication in the experience offered by higher education institutions to all students (including international) across the four dimensions studied here” (Ammigan & Jones, 2018).

Even though a large number of students were included, this study only considered undergraduate, degree-seeking students, overlooking those studying for credit in other countries. Erasmus students and other exchange students, for instance, were not part of the sample. Others not included were those studying at postgraduate level or in English as a second language programs. No personal or cultural factors were considered, which may have had an impact on the student experience. The reported findings were not necessarily meant to be generalizable in nature but rather to serve as a comparative baseline and indeed as a possible springboard for future research.

1.5 Terms and Definitions

Several terms and keywords are used on a regular basis throughout this study. A definition of each of these terms is provided in the glossary below, as they relate to this research.

Academic success: International students' performance, achievement of, or progress toward their desired program of study or career goals (Sharkey & Layzer, 2000). Grade point average or passing grades are usually an indication of students' academic success (Astin, 1993).

Arrival experience: The experience of international students upon arrival at their institution, including airport pickup, orientation programs, first night and accommodation. Survey items include satisfaction with welcome events and transportation services, orientation programs and academic registration, setting up a bank account, and getting around campus and the local community.

Aspect of satisfaction: Satisfaction variables within each one of the four dimensions of experience (arrival, learning, living, and support services).

Assessment: A systemic, continuous process in higher education that uses empirical data (Allen, 2004) on student experience to measure, refine, and improve learning, programs and services in curricular and extracurricular settings.

Benchmarking: A continuous analysis of strategies, functions, processes, products or services, and best practices, compared within or between best-in-class organizations by obtaining information through appropriate data collection methods with the intention of improving current standards (Kumar, Antony, & Dhakar, 2006).

Campus internationalization: A strategic, coordinated process that seeks to align and integrate policies, programs, and initiatives to position colleges and universities as more globally oriented and internationally connected institutions (American Council on Education, 2016).

Destination country: The location of an institution worldwide, in which an international student chooses to seek overseas education and studies at. This study looks at institutions located in Australia, UK, and US.

Dimension of experience: A category or environment of institutional experience. This study investigates international student satisfaction in four distinct dimensions of student experience, namely arrival, learning, living, and support services.

Higher education internationalization:	The intentional process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post-secondary education, in order to enhance the quality of education and research for all students and staff, and to make a meaningful contribution to society (de Wit et al., 2015). Also referred to as Internationalization in Higher Education (IHE) in this study.
Institutional recommendation:	Students' recommendation of their current institution to prospective applicants, based on their experience at that institution. In this study, respondents were asked whether they would encourage or discourage future students to apply to their institution. This item uses a 5-point Likert scale, where 1 = Actively Discourage, 2 = Discourage, 3 = Neither Encourage or Discourage, 4 = Encourage, and 5 = Actively Encourage.
Instrument:	A statistical tool that attempts to measure variables or items of interest in the data-collection process of a study, involving instrument design, selection, construction, and assessment (Hsu & Sandford, 2010). The International Student Barometer survey was the instrument in this study.
International students:	Students admitted by a country other than their own country of citizenship, usually under special permits or visas, for the specific educational purpose of following a particular course of study at a postsecondary institution in the receiving country (Organisation for Economic Co-operation and Development, 2015). This study

investigates undergraduate, degree-seeking students at institutions in Australia, UK, and US.

International Student Barometer (ISB): A benchmarking survey of international student satisfaction in higher education, developed by i-graduate, that tracks and compares the decision-making, expectations, perceptions, intentions and satisfaction of international students from application to graduation.

International student experience: The experience of the international student respondents in this study with their arrival, learning, living and support services environments at their respective institution.

International student mobility: The movement of international students who have crossed borders for the purpose of study at institutions outside of their home country (Organisation for Economic Co-operation and Development, 2015).

International student recruitment: The branding, marketing, and promotion of an institution of higher education to prospective international students in support of enrolling them into an academic program of study. Optimal recruitment outcomes influence student choice and include an interplay of technology, partnership, and research strategies (Choudaha, Chang, & Kono, 2013).

International student retention: The function of improving graduation rates and decreasing a loss of tuition revenue from students that either drop out or transfer to another institution (Wild & Ebbers, 2002). Also referred to as persistence, student retention is a significant measure of an institution's performance, student success, and strong academic support.

International student satisfaction:	International students' assessment of the services provided by universities and colleges, including the quality of teaching and academic services, support facilities, physical infrastructure, and social climate, among other factors. It is a continually changing construct and a dynamic process that requires clear and effective action as a result of student feedback (Elliott & Shin, 2002). Satisfaction items in this study use a 4-point Likert scale, where 1 = Very Dissatisfied, 2 = Dissatisfied, 3 = Satisfied, and 4 = Very Satisfied.
International Student Services (ISS):	Programs and services provided to international students to support their academic, cultural and social transition to and success at their institution (Ammigan & Perez-Encinas, 2018).
Learning experience:	The experience of international students in their academic setting at their institution, including satisfaction with the teaching, studies, and facilities aspects of their learning experience. Survey items include satisfaction with content and quality of lectures, academic expertise and teaching quality, level of research activity, and access to and feedback from academic staff.
Living experience:	The experience of international students in their living setting at their institution, including satisfaction with on-campus accommodation, social, and day to day life aspects of their living experience. Survey items include satisfaction with the cost and quality of accommodation, campus safety and security, internet access, and opportunities to make friends with local and other international students.

Overall university experience:	The totality of a student’s interaction with their institution (Temple, Callender, Grove, & Kersh, 2014). In this study, Overall University Experience refers to international students’ overall satisfaction with their university experience.
Programming and outreach:	The provision of programs, services, activities, or expertise to international students or other members of the university community, usually in partnership with campus units and community sponsors.
Satisfaction mean score:	The average degree of satisfaction of international students, measured on a Likert scale.
Stakeholder:	A university partner office or employee with whom programs, services, and expertise are collaboratively developed and offered.
Statistical significance:	The probability that a relationship between two or more variables in a sample is caused by something other than random chance. Statistical hypothesis testing is used to determine whether the result of a data set is statistically significant, which is often referred to as the <i>p</i> -value.
Strategic communications:	An integral communication approach that is aligned with the organization's overall strategy to effectively reach and gather feedback on the experience of international students through an established communications plan.
Strategic planning:	A defining feature of all universities, encompassing organizational change, curriculum innovation, staff development and student mobility, for the purposes of achieving excellence in teaching and research (Rudzki, 1995).

Student affairs:	A department or division of offices that offer programs and support services to enhance student growth, development, and success at institutions of higher education.
Student engagement:	The time and effort that students put into getting involved in curricular and extracurricular activities, usually organized by university departments, support units, or student groups.
Support services experience:	Programs and services provided by International Student Services and other partner offices on campus to support the academic, cultural, and social experiences at the institution. Survey items include satisfaction with the international office, finance department, career services, health and counseling centers, and chaplaincy and multi-faith provision.
University administrator:	An employee of a college or university who serves in a managerial or leadership position.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview of existing literature and research on international students in their arrival, learning, and living environments, as well as their experience with support services on university campuses. More specifically, it examines the literature on international student satisfaction at institutions in Australia, the UK and the US, and how satisfaction is measured. This chapter is organized in seven main sections. The first section introduces international student mobility in the context of the internationalization of higher education and highlights related research in the recruitment and retention of international students. The second section presents statistics, trends, and demographic data on international students studying across the globe and focuses on international students at institutions in Australia, the UK and the US. The third section defines International Student Services and discusses various resources and support services typically provided to international students on their respective campuses, from arrival to graduation. Some content from this section (section 2.4) is reproduced from the co-authored articles “International Student Services” (Ammigan & Perez-Encinas, 2018) and “Student Mobility in Higher Education: A Mass Movement Requiring Significant Involvement from Student Affairs and Services” (Ammigan & Schreiber, forthcoming 2018). The fourth section presents literature on the international student experience from a holistic approach, followed by the next section that provides an overview on existing research on international student satisfaction. The sixth section reviews literature on international students’ process to choose a destination country and institutions, and the factors that influence students’ recommendation of their university to prospective applicants. The last section, before concluding this chapter, describes the International Student Barometer, which is the data

collection instrument used in this study to measure student satisfaction, along with related studies and their findings.

2.2 International Student Mobility in the Context of IHE

One of the most commonly used definitions of Internationalization in Higher Education (IHE) is the “process of integrating an international, intercultural, or global dimension into the purpose, functions or delivery of postsecondary education” (Knight, 2015, p. 2). This is aligned and corresponds well with Hudzik’s (2011, p. 6) definition of comprehensive internationalization, which refers to “a commitment, confirmed through action, to infuse international and comparative perspectives throughout the teaching, research, and service missions of higher education [that needs to be]...embraced by institutional leadership, governance, faculty, students, and all academic service and support units.” While there are several interpretations of internationalization, both of these definitions are derived from earlier dimensions of International Education and are framed in the context of international activity related to either student and faculty mobility (inbound or outbound), or to the curriculum, such as multicultural and intercultural education and area studies (Jones & de Wit, 2013). For institutions to add an inclusive and intercultural dimension to their teaching, research, service, and entrepreneurial functions of their operations, they must also include in their global reach and initiatives local perspectives, internal processes and organizational culture, and engage leadership, academic faculty and professional staff at all levels in order to achieve their internationalization goals (Jones, 2013).

de Wit et al. (2015, p. 29) came up with a more recent and updated definition of internationalization, indicating that it is “the intentional process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post-secondary

education, in order to enhance the quality of education and research for all students and staff, and to make a meaningful contribution to society.” Knight (2006) argues that Internationalization Abroad consists of all forms of education across borders, mobility of students, teachers, scholars, programs, courses, curriculum and projects, whereas Internationalization at Home (IaH) represents activities that help students develop international understanding and intercultural skills. However, Beelen and Jones (2015), who define IaH as “the purposeful integration of international and intercultural dimensions into the formal and informal curriculum for all students, within domestic learning environments” (p. 69), contend that Knight’s distinction is problematic and that the role of curriculum must be central to the concept of IaH, rather than a related factor or activity (p. 62). This dissertation focuses on the mobility of international students and investigates their satisfaction with both curricular and extra-curricular experiences in various institutional environments, such as living, learning, and general support services. It also examines which of these environments is most significant on students’ overall institutional experience.

The enrollment of international students is an important aspect of IHE and can represent a key economic, political, cultural, and academic factor for institutions at the national, institutional, and student level (de Wit, 2016a; Roberts & Dunworth, 2012). Although they are “transient visitors” in the host country and academic communities, international students form an integral part of their university’s fabric and represent a significant component in the local Higher Education context (Montgomery, 2010). Having international students on campus also represents a good strategy for developing the global and intercultural competence of domestic students, faculty and staff via interactions in the classroom and in other non-academic social settings (Irina, Gregg, & Martha, 2017). However, for these benefits to be prevalent, institutions must be

aware of the many adjustment issues that international students usually face in their transition to campus and in turn implement adequate support services and interventions that enhance academic achievement, intercultural learning, and overall institutional experience (Andrade, 2006).

Over the past decade, many institutions have seen record-high enrollments of international students on their respective campuses. Globally, the number of students enrolled in tertiary education outside of their country of citizenship increased more than three times, from 1.3 million in 1990 to nearly 5 million in 2015 (Organisation for Economic Co-operation and Development, 2015). This number is expected to increase by another 2.3 million by 2030 (Choudaha & van Rest, 2018). The US, UK and Australia attract the largest number of international students from around the world and have been leaders in developing successful international recruitment strategies and practices. According to a study by Studyportals (2018), students from Asia form the largest group of international students enrolled in tertiary education programs at all levels globally. Of those, 612,000 students come from China and 75% of Asian students decide to study in the US (44%), Australia (16%), and the UK (15%).

In recent years, universities around the world, especially in the US, UK and Australia, have placed a strong focus on the recruitment of international students as a source of revenue due to financial pressures (Choudaha & Hu, 2016; de Wit, 2016b; Jones, 2013; Zhao & Douglass, 2012). In a new environment of budgetary cuts, “the competition for talented and self-funded international students among nations has become intense and strategic” (Luo & Jamieson-Drake, 2013, p. 85). A recent report from the National Bureau of Economic Research show that public research universities in the US have turned to tuition-paying international undergraduate students as a sustainable option to offset cuts in state funding (Bound, Braga, Khanna, & Turner, 2016).

Interestingly, it notes that as international student enrollment went up at public universities, state spending went down. At the same time, the yield rate for both undergraduate and graduate international admissions experienced a decline, according to surveys conducted by the Institute of International Education (Institute of International Education, 2017a) and the Council of Graduate Schools (Okahana & Zhou, 2017). These reports suggest that nearly 40% of US colleges have seen declines in applications from international students, mostly attributed to tighter immigration regulations and the perception of a less welcoming climate in the US. 71% of institutions also indicated concerns about recruiting students from China, the leading sending country of international students to the US. This provides an indication that US institutions are not only dealing with greater competition in their recruitment efforts, both nationally and internationally, but also face added pressure to serve international students and ensure their educational success once they arrive to campus.

The role of international students in the context of higher education internationalization, however, is more than just increasing enrollment numbers and meeting the financial goals of institutions. Institutions must be prepared to match their recruitment efforts with support services international students need to have a positive experience, be academically successful, and become fully engaged members of the local community (Arthur, 2017; Briggs & Ammigan, 2017). As enrollment increases, institutions have the responsibility to foster a welcoming campus environment and maintain quality in the student experience and engagement. Yet, a majority of institutions still struggle to provide adequate resources that meet the expectations and experience of their high-paying international students (Archer, Jones, & Davison, 2010; Choudaha & Hu, 2016).

Coping with a new academic setting and environment can be challenging for all students. The adjustment process can be even more difficult and stressful for international students who often have to adapt to a new society, culture and language, away from family and friends (Andrade, 2006; Krishna Bista & Foster, 2016; Perrucci & Hu, 1995). International students do not only have to adjust to new academic requirements when entering a program or university, but also have to get accustomed to new social and cultural norms such as communication styles, eating options, living arrangements, and making new friends. The continued growth of international students has challenged many universities to focus not only on the academic aspects of the student experience but also on the needs that international students might have regarding services and matters related to their stay and comfort (Kelo, Rogers, & Rumbley, 2010). Providing adequate support services and resources to students can contribute to a positive experience and serve as a key factor in attracting and retaining international students.

While internationalization at some institutions is defined, driven, and measured by international student and faculty mobility, international partnerships, research collaborations, and rankings, others focus on its impact on the student experience and intercultural engagement on campus (Jones, 2013). Given how important international student enrollment is to many institutions, it is important for international educators to understand the factors that impact the quality of their experience and adjustment to campus (Crano & Crano, 1993).

2.3 International Students in the US, UK, and Australia

According to the United Nations Educational, Scientific and Cultural Organisation's Institute for Statistics (n.d.), internationally mobile students are students who have crossed a national or territorial border for the purpose of education and are now enrolled outside their country of origin. The Organisation for Economic Co-operation and Development (2015)

expands this definition by suggesting that international students are those who are admitted by a country other than their own country of citizenship, usually under special permits or visas, for the specific educational purpose of following a particular course of study at a postsecondary institution in the receiving country. This study investigates undergraduate, degree-seeking students at institutions in Australia, UK, and US.

Several authors have posited whether the international and domestic student experience differ from each other. While some have argued that segmenting the international student audience can be problematic and result in over-generalization (Shideh Hanassab, 2006; Jones, 2017), other studies have pointed to their unique experiences on university and college campuses (Hayes & Lin, 1994; Lee & Rice, 2007; Sherry, Thomas, & Chui, 2010; R. A. Smith & Khawaja, 2011). International students face a number of distinct challenges as they transition to their host institution and throughout their studies ranging from the administrative burden of visa compliance, language barriers and work constraints to a reduced sense of belonging and inclusiveness (Choudaha & Schulmann, 2014; C. Smith & Demjanenko, 2011). While all students must adjust to a new life in college, international students tend to have greater difficulty in doing so (Kaczmarek, Matlock, Merta, Ames, & Ross, 1994).

2.3.i The United States

According to NAFSA: Association of International Educators (2017), the number of international students in the US increased from 541,324 in 2007 to 1,078,822 in 2017, indicating an increase of 99% in enrollment in just 10 years. Only 5.3% of all students at US colleges and universities were international students in 2017, yet they contributed a total of US\$ 36.9 billion and supported more than 450,000 jobs to the US economy during that academic year. US

institutions, however, enrolled 31,520 fewer international students than in 2016, indicating a potential loss of US\$ 788 million in revenue for just the first year of studies.

International students are critical to the competitiveness of American higher education as they can add diverse perspectives that enrich in-classroom and on-campus experiences for all students and contribute to advancing research, economic development, and innovation in the global economy (Choudaha, 2018). However, “the recent political turmoil which began with the Presidential elections accelerated several changes which in turn are hurting the competitiveness of US higher education institutions in attracting global talent, reputation, and resources” (ibid 2018).

In 2017, over 45% of institutions of higher education in the US reported declines in enrollments of new international students, citing the social and political climate, visa difficulties, cost of US higher education, and the global competition for talent as contributing factors to this shift in numbers (Baer, 2017). Institutions that responded to the International Student Enrollment Hot Topics Survey (2017) indicated concerns about their future recruitment plans in countries other than China, after experiencing a 6.9% decline in enrollment of first-time international students. As a result, these institutions have bolstered their recruitment and outreach efforts to prospective international students, strengthened their global brand, and developed strategies for enhancing the experience, inclusiveness, and success of these students on campus.

These respondents were also not concerned about the majority of their international student population being from just one country, China, but instead were focused on addressing the challenges faced by their international student community, such as academic integrity, engagement, and integrating into the campus life. Relevant initiatives included academic support, counseling, strategic communications, networking opportunities, and social and cultural

activities. Over 92% of the 522 participating institutions in the Hot Topics Survey (2017) reported that the current social and political climate in the US impacted prospective students' attitudes and perceptions and served as a deterrent to study in this country. Consequently, these institutions have been proactive at alerting their students about changes in immigration policies, issuing statements in support of international students and international education, and offering a platform to discuss potential impacts on their experience (ibid 2017).

While the US remains the top destination market for international students, the ability of universities to retain their market share is unclear due to increased competition and pressure from emerging destination markets and countries with pro-immigration programs, better job placement opportunities, and softer visa policies. Another recent international student survey deployed to over 2,500 prospective international students, representing 11 source markets, saw a 19% drop in students who indicated they were 'very interested' in studying in the US, and a 5% increase in students 'not interested' in studying in the US (The Hotcourses Group, 2017). The study also found that future international students were primarily concerned with visa requirements, language barriers, safety, not having friends or family nearby, and the political uncertainty in the US. On the other hand, the factors that impacted their institutional destination choice were job prospects after graduation, financial incentives and scholarships, the academic program of interest, positive reviews on international student experiences, and university support services. Based on these findings, recommendations for institutions were formed and included the promotion of a welcoming environment, campus-wide experiences, alumni success stories, support services, and campus safety for prospective international students.

The recent political developments in the US have also had higher education admissions and recruitment officers worried about the impact that changing policies might have on

recruiting and retaining international students. From an Educational Testing Service (2017) survey of 556 admissions officers in the US, the findings showed that 82% of institutions were concerned about attracting international students, and 80% were concerned about retaining their international students. However, only 44% of these institutions had changed their recruitment strategy despite these concerns. Respondents also indicated the top four areas that their institution focused on to help international students be successful: Student Services (56%); Social Integration (48%); Campus Facilities (27%); and Academic Performance (25%).

2.3.ii The United Kingdom

International student mobility has been and continues to be an important initiative in the UK government's effort to foster engagement in higher education. In a report led by the British Council and Education Insight, Ilieva et al. (2016) suggest a few key indicators that signal excellence in international student mobility and an educational system conducive to international students, both at the national and institutional levels. Among those, streamlining policies around student visas, application procedures, family and dependents regulations, and employment opportunities during study were key elements. While there is usually a strong focus on welcoming and teaching international students on university campuses, the report argues that less attention is often geared towards the quality of education provision and assessment for international students. Such quality of teaching and evaluation practices, for instance, exist in few countries such as Australia, UK, Germany, Malaysia, and the Netherlands, and must be further strengthened at other institutions around the world (Ilieva et al., 2016).

According to the Higher Education Statistical Agency (2018), 442,375 international students studied at UK universities in 2017, indicating a 1% increase over the previous year and a 4% increase in 5 years. With the UK attracting more students from overseas than any other

country besides the US, its student population is quite diverse. In 2017, 14% of undergraduates and 38% of postgraduates at UK institutions were international students (Universities UK, 2017). International students contributed £20 billion to the UK economy in 2017 making their spending a major factor in supporting local economies in addition to the tuition fees that they pay (The Higher Education Policy Institute, 2018). In all of this, it is extremely important to note that international students bring economic benefits to the UK that are worth 10 times the costs of hosting them (Coughlan, 2018).

UK's vote in the referendum to leave the European Union in 2016, also known as Brexit, brought some challenges for British institutions. Immediately after the vote, there was a rapid decline of around 41,000 international students choosing to study in the UK (Office for National Statistics, n.d.). Since then, universities running on a high fixed cost base have increased their borrowing commitments as they are expected to repay previously-disbursed loans from the European Investment Bank (Eggins, 2018). With the level of uncertainty surrounding the impact of visa regulations, tuition fees, and employment on international student enrollment, institutions in the UK must focus their attention and commitment on providing a welcoming environment and improving the experience of their students on campus. Indeed, with the domestic diversity that exists in the UK, supporting the needs of all students, regardless of their country of origin, culture or personal experiences, can foster a more inclusive and welcoming experience for a students, local or international (Jones, 2017).

In 2016, the British Universities' International Liaison Association gathered responses from 25 international directors and senior professionals at UK universities about emerging trends in the international student mobility market and the role that government policy plays in that area (Hobsons, 2016). Their report indicated that 94% of the respondents believed that perceptions of

the UK amongst potential international students had worsened over the previous 12 months, and that 59% were concerned that their institution might have to reduce course-choice if the UK continues to lose their market share in the international higher education market. These international directors also suggested that government policy has had a direct negative impact on their ability to recruit international students, with 100% of respondents believing that restrictions on post-graduation employment visas, for example, have had an adverse effect on their international student recruitment efforts (ibid 2016).

2.3.iii Australia

Like at many institutions in the US and the UK, a primary component of higher education in Australia is the cultural diversity of the whole student population on campus, which presents opportunities for both international and domestic students to interact with peers from different cultural, social, and linguistic backgrounds (Arkoudis et al., 2013; Jones, 2017). According to the Australian Government Department of Education and Training (Project Atlas, n.d.), 327,606 international students studied in Australia in 2017, representing a 12% increase from the previous year and revealing the largest increase recorded in a single year. Since 2014, Australia has seen a 54% growth in Chinese student numbers. With these unprecedented numbers in enrollment, international students now make up more than a quarter of all students at certain universities. A recent analysis by the Australian Bureau of Statistics confirmed that the international student sector generated about AUS\$ 28.6 billion in 2017, including tuition fees and living expenses, making it the country's third-largest export behind iron ore and coal (ICEF Monitor, 2017). Economists have credited the boom to the strong reputation of Australian universities, along with a slightly weaker currency and the proximity to Asia. Others have suggested that it may be related to concerns about changes in immigration and visa policies

affecting other countries. The Centre for Global Higher Education predicts that Australia will overtake the United Kingdom to become the world's second highest destination for international students in 2019 (Marginson, 2018).

However, according to the Regional Universities Network, the Australian Government's very recent budget cut and domestic funding freeze could significantly impact future student enrollment at universities and, in turn, increase competition for international students (Crace, 2018). With lower enrollments of domestic students, many Australian universities might turn to even more aggressive international student recruitment strategies to make up costs and meet their financial goals.

Australian Education International (2012) released a report, entitled International Students Strategy for Australia, in support of the objectives of the Government's strategic framework and action plan for supporting a high-quality experience for international students studying at Australian institutions. The report, which is still being widely used as a platform for best practices by several universities, includes strategies on enhancing social engagement, career readiness, student support services, and orientation programs. Through a series of collaborative projects launched at Australian universities, such as workshops, panel discussions, exhibitions, volunteer and experiential learning programs, networking events with local community organizations, and a series of innovative support services, international students indicated improved orientation to their University life, increased awareness of the nature of University support services, and a greater understanding of how their needs can be supported. These initiatives also resulted in improved collaborative services between University support services and faculty, enhanced engagement and connections with other domestic and international

students and staff on campus, improved intercultural communication skills and self-awareness, and better support for career guidance and development.

2.4 International Students Services

International Student Services (ISS) generally encompass programs and services provided to students in relation to their formal and informal education at the postsecondary level (Osfield, Perozzi, Bardill Moscaritolo, & Shea, 2016). While the structure and organization of ISS can vary greatly in function, role, and reporting line, it is common for universities in the US, UK, and Australia to have dedicated service offices designed to support students in their academic, cultural and social transition to campus (Ammigan & Perez-Encinas, 2018). These offices usually provide a wide range of services from advising students on immigration compliance, academic, employment, financial, and personal issues to hosting social and cultural programs that can help with the adaptation and acculturation process.

The Council for the Advancement of Standards in Higher Education (n.d.), which is a consortium promoting professional standards for the development, assessment, and improvement of quality student learning, programs, and services in US higher education, defines the role of ISS as designated offices that “provide support and assistance necessary for international students to achieve their educational goals and to ensure institutional compliance with governmental immigration regulations.” Such offices are expected to contribute to students' formal education, which includes both the curriculum and the co-curriculum; student progression and timely completion of educational goals; the preparation of students for their careers, citizenship, and lives; and student learning and development. In addition to advising international students on compliance with immigration laws, regulations, and policies, as well as providing engagement opportunities in a welcoming, accessible, and inclusive environment, ISS offices

must also develop evaluation or needs assessment plans and processes to understand the needs and experiences of the international community and ensure effectiveness in the programs and services provided to that audience (Council for the Advancement of Standards in Higher Education, n.d.).

The role of ISS staff and advisors, who often serve as the designated point persons for international students, has become more intricate in recent years due to changing immigration policies and compliance standards, recurring safety and security concerns, and increased political instability across nations worldwide (Wood & Kia, 2000). It is common for ISS staff to collaborate frequently with other student affairs and services personnel in their efforts to support and engage their international students (American Council on Education, 2016). For instance, ISS offices usually work closely with their career and counseling centers, accommodation offices, dormitories, dining facilities, and multicultural centers to address the needs of international students across different university settings and advocate for additional resources whenever necessary.

Hammer (1992) suggests four main culturally responsive and sensitive approaches of service that ISS offices must consider when developing their mission statement and priorities that support international student adaptation to campus: 1) assist international students with the various problems they encounter upon arrival and during their stay in a new country or campus; 2) provide cross-cultural adjustment and culture shock counseling services to assimilate into a new environment; 3) serve as an information “broker” and communication networker to administer resources and enhance social interaction; and 4) support academic success by facilitating understanding of the learning process.

According to Ting and Morse (2016), student affairs professionals also contribute to the experience of international students in a number of ways, from offering language and academic support programs to promoting positive social relationships among students, their peers, and the larger community. For this to happen, however, programs must be designed intentionally and collaboratively to serve the complex needs and challenges of a diverse student population. The entire campus community must clearly understand that supporting international students in their academic, social and cultural environments, as well as increasing cross-cultural sensitivity and interactions among all students, can help advance the internationalization and diversity goals of the institution (Koseva, 2017). With direct access to the international community, ISS offices can play a vital role in furthering global engagement and enhancing intercultural competencies on campus through collaborative programming with other university service units. It is important that senior administration and leadership actively promote the importance of international and domestic diversity to others on campus and are committed to forging campus-wide partnerships, no matter what the reporting lines are (Peterson, Briggs, Dreasher, Horner, & Nelson, 1999). There must also be frequent interactions between ISS and units within the division of student affairs to regularly identify the needs of international students, address the impact of changes in federal regulations and visas, and discuss ways to fulfil gaps in support services and resources.

In a qualitative study of international students at Monash University in Australia, Sawir et al. (2008) found that the impact of losing family support, a lack of social networks, and unfamiliarity with cultural and linguistic settings can trigger and heighten loneliness among students. The authors argue that international students who feel isolated and experience difficulty in developing a social network on campus tend to be less confident than their domestic peers, and therefore friendlier classrooms, a welcoming campus community, and sensitive student

services can prove to be more significant for international students than for domestic students. Institutions must be intentional at informing their students about available services upon arrival to campus. Assistance with practicing the English language, sustaining personal and social relationships and friendships, and maintaining contact with family and close friends from back home can reduce any culture shock stressors and contribute to a positive experience on campus (Sawir et al., 2008).

2.4.i Immigration and Regulatory Compliance

University offices responsible for ISS are often referred to as “one-stop shops,” covering a full range of programs and services dedicated to international students and scholars. ISS staff is primarily responsible for helping students adapt and acculturate to their new environment, while also providing them guidance on an array of issues ranging from immigration regulations and career advising to transportation and local shopping. However, an increase in immigration regulations and federal compliance standards for international students around the world has put more emphasis on ISS staff and student advisors for having extensive legal and regulatory knowledge as part of their daily functions (Wang, Manley, & Morote, 2007).

It is important for international student advisors to stay abreast of immigration-related issues and concerns, such as visa application processes and travel and employment requests, so that accurate and timely information and assistance can be provided to international students. At many institutions, particularly in the US, Australia or the UK, ISS staff have made it their top priority to inform and advise international students and scholars on their visa status. Therefore, ISS staff must receive relevant professional development and training to stay current on changing immigration laws and government reporting requirements.

2.4.ii Support for Student Success

Supporting international students on academic success, social and cultural adjustment, and community engagement is one of the many responsibilities of an ISS office. In addition to covering information specific to immigration regulations and employment options, programs and workshops must be organized around the specific academic needs of students such as classroom culture, tutoring services, time management and study skills, academic honesty and plagiarism, and, language support (Briggs & Ammigan, 2017).

Developing supportive networks with domestic students can also help international students adapt quickly to their new living and learning environments. Social and cultural programs such as coffee hour programs, welcome receptions, residence life floor events, a buddy program, and recreational events can boost engagement among students. International students also require assistance on how to navigate resources and services in the local community. Programs such as shopping trips, excursions, and host family programs, as well as workshops on how to open a bank account, locate ethnic restaurants and grocery stores, apply for a driver's license, and get a cell phone can prove to be valuable.

2.4.iii Collaborative Programming and Outreach

Engaging international students with the larger campus community can add value and quality to both the student experience and an institution's overall internationalization efforts. In fact, "quality" in undergraduate education encompasses the whole student experience (Burdett & Crossman, 2012), taking into account not only the academic experience but also campus life. ISS and other student support units on campus play a vital role in creating a welcoming and inclusive environment for international students through programming and opportunities for cross-cultural engagement. In addition to serving the complex academic, social and cultural needs of

international students, strategic programming and outreach initiatives can provide a platform for all students to develop intercultural competencies, which is defined by Deardorff (2011) as effective and appropriate behavior and communication in intercultural situations.

Collaborative programs usually include orientation programs, cross-cultural activities, field trips and community events, and a variety of academic workshops to name a few. However, additional programming efforts require extra funding, resources and time. To overcome budget issues, some ISS offices actively seek opportunities to collaborate with other campus offices, community partners, student organizations and volunteers on initiatives that can reach a wider audience. Designing a cohesive, cross-departmental plan and coordinating intentionally with other service units on campus can address the needs of students more effectively. Key players in this effort include institutional leadership, faculty, academic departments, the alumni office, and student affairs and service units, such as the accommodation office and career services (Roy, Lu, & Loo, 2016).

2.4.iv Career Planning and Development

It can be a stressful experience for international students to find employment during their program of study and after graduation. Their career development and planning process is often presented with obstacles such as legal requirements, cultural differences, language and communication barriers, and for some, unfamiliarity with the basic career construct of a new society (Reynolds & Constantine, 2007).

An effective partnership between ISS and Career Services is essential for addressing the complex career needs of international students. It can include workshops, seminars, walk-in advising sessions, and webinars that cover a wide range of topics such as career planning and decision making, visa requirements, job search and interviewing skills, resume building, and

networking with recruiters. Developing a joint strategy for explaining complicated immigration regulations to prospective employers can also increase internship and post completion employment opportunities for foreign nationals.

2.4.v Health and Wellness

The first days in a new country and culture can be confusing and stressful for many students. This process of transition from one culture to another, for international or domestic students alike, may involve adjusting to general life factors such as food, accommodation, and transportation; academic conditions such as language and educational system; different aspects of culture shock such as new customs, norms, and traditions; and psychological factors such as homesickness, loneliness, depression, alienation, and loss of identity (Msengi, 2004).

Unfortunately, on some campuses, some international students who may experience unique concerns and needs are traditionally overlooked (Mori, 2000). It is therefore extremely important that international students are made aware of and have access to resources that can help with their acculturation process.

A collaborative model for information sharing and programming between ISS offices and student affairs units such as the Counseling Center, Student Wellness, and Health Services can help prevent and alleviate any academic and cultural stressors that may impact the health and wellbeing of students. Examples of programs include workshops and events around how to get started at the university, making friends on campus, communicating across cultures, managing stress, coping with expectations from home, and exercising and eating healthy.

2.4.vi Crisis and Emergency Response Management

It is not uncommon for international students to face some form of a crisis during their university years in a foreign environment. Such crises include but are not limited to academic

stress, financial pressure, family struggles, health concerns and other unexpected emergencies. It is therefore critical for ISS staff to be prepared and trained to effectively respond to and manage crisis situations, protecting the well-being and safety of their students throughout the process.

An ISS office must plan in advance to ensure that it has the necessary protocol and procedures in place to address crises, that staff are aware of their responsibilities and office protocols, and that the office has the right referral contacts and partner office experts readily available in the event of an emergency (Albrecht, 2015). It is also important for ISS staff to understand their institution's legal responsibility and liability with respect to different kinds of crises. Working with the university attorney, risk management, public safety, counseling services, and communication and media offices in advance can help prepare for unexpected situations. Collaborative efforts can also include training on the referral process and emergency preparedness for staff, setting up educational workshops and online resources for students, and introducing software that can track, reach, and assist students during emergency situations.

2.4.vii Effective Communication Support

As more university departments use social media and other communication platforms to connect with and inform students in general, there is a need to determine the effectiveness of these efforts and strategies. For instance, in studying which social networking sites international students prefer for information dissemination activities, Saw, Abbott, Donaghey, and McDonald (2013) found that students choose particular channels such as Twitter, YouTube and Renren for a wide range of educational and social purposes, while Facebook remains the predominant choice. A more recent study by Ammigan and Laws (2018) found that email was the most preferred form of communication used by international students to send and receive important information at the university, followed by face-to-face interactions, and social media channels. To ensure that

international students, scholars, employees, and their families receive vital and timely information on their immigration status and opportunities to be involved in campus activities, it is important for ISS teams to dedicate more attention to how messages are crafted, sent and received by their targeted audiences.

Woven into an ISS office's overall communications plan, these strategic messages should seek to foster a sense of community and belonging among the international population at the institution and share the perspectives of the international community with the extended campus. Understanding that methods of communication can differ vastly by personal preference, cultural practice, and country-specific access, ISS should aim for a multi-faceted approach to reach a wide audience. Methods may include print, electronic and social media communications, as well as accessible training modules, all designed to keep their diverse audiences engaged and well-informed.

2.4.viii Assessing Student Experience and Satisfaction

Improving the experience of students is a priority for many institutions as it helps increase retention rates and support recruitment initiatives (Asare-Nuamah, 2017). The increasingly competitive and dynamic educational environments that universities operate in requires them to be constantly aware of their students' level of satisfaction with their campus experience (Elliott & Shin, 2002). In the context of ISS, there is also a strong argument to be made for why universities and their policymakers need to better understand their students' satisfaction with the support services they are provided with. ISS across several countries use a variety of assessment tools that measure and provide feedback on the needs, expectations or satisfaction level of international students with their university's support services.

While some institutions develop their own surveys and satisfaction questionnaires in-house, others have been successful at contracting with external companies and services to gain effective insight into the quality and impact of the services they offer. Still, it is unclear from currently available literature as to whether institutions that survey their international students are analyzing the data, formulating recommendations, and implementing necessary changes based on their findings to improve the support services they provide. Those who have done so were successful at enhancing support in the areas of customer service, student advising, programming and outreach, and educational training (Perez-Encinas & Ammigan, 2016).

2.5 The International Student Experience

An important strategic priority at many institutions of higher education has been to improve the student experience, which is seen as a critical recruitment and retention strategy for providing a high-quality education and remaining competitive in the global student market and world rankings (Baranova, Morrison, & Mutton, 2011; Shah & Richardson, 2016). There are several factors that can directly impact the experience of international students during their program of study. Jones (2017) identifies four interrelated environments that could influence the student experience in an academic, living, and social setting. These predictors are identified as personal history, family context, institutional nature and location, and national context, which includes institutional values and support services. Elsharnouby (2015) argues that university-wide experiences of students occur at two main levels: 1) the core level, which centers around the learning experience, and 2) the supplementary level, which includes factors such as quality and physical environment of the university, library facilities and educational technology, university layouts, social environment, and campus climate. The author also demonstrated that while not all university service attributes necessarily influenced international student satisfaction,

perceived university reputation and faculty competency were critical in shaping students' experience and satisfaction with their institution.

Archer, Jones, and Davison (2010) offer recommendations to international offices, student support services, senior management, and practitioners on how to improve the experience of international students at different stages of their program, including application and arrival, cultural and social integration, accommodation and living, and work experience and employability. They also affirm the need for better communication, coordination of services, appropriate use of technology, flexibility, and managing expectations.

In a paper exploring the motivations for UK students to study in degree-seeking programs overseas, Findlay et al. (2012) found that international student mobility is not only about getting a high-quality academic experience at a "world class" institution but also about the social and cultural experiences gained as part of the process. The prospect of an international career was a significant factor in motivating respondents to study outside of the UK. Nyland and Hartel (2013) suggest that the commercialization of international education could have a direct impact on the experience of international students if not properly governed. They identify three main challenges in their quantitative study that international students in Australia commonly face: 1) serious financial difficulties leading to anxiety, stress, poor academic performance, and adjustment and health issues due a misrepresentation of the cost of living by recruiters; 2) limited assistance by support offices in helping students find affordable accommodation options instead of expensive on-campus housing; and 3) lack of support and infrastructure to address personal safety and security concerns on campus and in the community.

In order to improve the student experience and cope with increased student expectations of service delivery at the University of Derby, Baranova, Morrison, & Mutton (2011) used

service blueprinting and enhancement techniques, which is based on student feedback and process mapping, to review and redesign services related to learning, teaching, and support services. The authors found that the main factors contributing to a 32% improvement in student experience in just one year were related to the quality of information and media channels used, greater access to online enrollment options, additional customer service training for service staff, a new self-service system for ID collection, and a revamped welcome week program that focused on assisting students transition and acculturate to their new campus environment.

2.5.i Arrival Experience

Leaving family and friends back home to travel to a new country for studies can be an exhausting experience. International students are often nervous to take on this long journey that usually involves challenges such as obtaining a student visa, speaking English, finding accommodation, managing the cost of living, meeting new people, fitting into a new environment, and adjusting to a new classroom culture (Brett, 2013). The experience of arrival to campus can therefore be critical for new international students to get started on a positive note and navigate all the remaining challenges that await them. Universities must be intentional at setting up adequate support services, such as orientation programs, airport pick up, and social activities, that meet the expectations of incoming students and ease their transition to campus.

Preparing international students on what to expect even before they reach their university can help them transition smoothly and settle quickly into their new environment. “Sensitization” to campus resources early on upon arrival can be very important in reducing challenges, adapting to campus, and improving their academic performance (Banjong, 2015). Pre-arrival information on the visa application process, transportation, accommodation, health insurance, class

registration and other key issues can be made readily accessible in their admissions packets and across existing online and social media platforms.

More and more institutions have begun to host pre-departure orientation programs overseas even before incoming students travel to their university. Upon arrival to campus, hybrid orientation programs with other student services units can further assist and guide international students towards a positive and successful experience. Academic advisors must be encouraged to discuss courses offerings at a more detailed level, including class size, organization, and level of difficulty, so that students can choose a balanced schedule prior to the start of their first semester. Working closely with academic services throughout the academic year to pinpoint common challenges and address them through refined programming and initiatives can also serve as a proactive approach to supporting students at the beginning of their studies.

2.5.ii Learning Experience

Integrating international students in the classroom through quality education and teaching expertise has become a priority for many institutions in Australia, UK and US, as well as others around the world (Hellsten & Prescott, 2004). Evidence suggests that international students are generally more academically engaged in their first year than domestic students, and at the same time shows that faculty assumptions about international student behavior in the classroom are often incorrect (Andrade, 2006). The classroom culture, which includes inter-student interactions such as group work and participation, level of formality or informality required when dealing with faculty, and language and other communication barriers, is one of the biggest challenges faced by international students (Sarkodie-Mensah, 1998). It is therefore critical for institutions to actively assess and address the different types and levels of support that international students need in their academic environment.

Shah and Richardson (2016), who define the student experience strictly from learning enrichment perspective, irrespective of mode of education delivery, thematically analyzed the role of student experience within the strategic priorities of 33 Australian universities. They found that among some of the recurring themes was an increased focus on course design, curriculum content and learning resources, teaching methods, student placements or practicums, engagement with staff, and technology and assessments used in learning, which were important factors in supporting the international student learning experience.

Hellsten and Prescott (2004) explored how the internationalization of the curriculum impacts international students in Australia and, specifically, how interactions between instructors and students affect the quality of learning. They found that an inclusive teaching philosophy was really important in serving the academic needs of international students in the classroom. This was coupled with the need to increase cultural understanding in pedagogy and teaching methods, as well as opportunities for discussions between international students and faculty or academic staff in university learning settings.

Leask (2015) links the motivation for international students to succeed academically with the approach that faculty take in establishing their teaching content and the learning process in their classes. Clear learning objectives and course expectations, feedback on assignments, access to academic and career advising, cross-cultural interactions between faculty and students as well as among domestic and international students, and an international perspective of local practices of learning have proven to be particularly helpful for international students in their adjustment to their learning environment (Arthur, 2017).

Montgomery (2010) studied the influence of social networks on the learning experience of international students at a UK university over a six month period to gain a better

understanding of the social factors in their learning environment beyond the classrooms. The qualitative study portrays how international students encounter differences in their social and cultural environments and use those cross-cultural experiences to support their academic success. For instance, where students live in relation to the university can influence the way they study in formal and informal spaces, such as developing friendships with other international students, participation in floor activities, and getting together over meals. Montgomery suggests through a constructivist approach that while the many influences on the international student experience are complex in nature, the social context of learning can improve the quality of learning experiences. The skills and competencies that students develop as a result of their learning experiences in a new social and academic environment can help them become global citizens. The study suggests that a supportive campus network and community of international students can serve as a basis for developing meaningful cross-cultural experiences for everyone at that institution.

Arkoudis et al. (2013) offer strategies for enhancing international and domestic students engagement in the teaching and learning contexts of an institution of higher education. The authors identify the interaction across cultural and linguistic groups as a key factor in enriching the learning experiences of students and supporting their academic success and achievement. This includes expanding their general knowledge, increasing awareness and understanding of worldviews, having a greater sense of belonging, preparing them for the multicultural workplace, and improving their English language skills (2013, p. 44). Coincidentally, the challenges to teaching international students perceived by academic staff members include lack of time to foster interaction due to large class sizes, the need to focus on subject content, and a lack of planning interaction activities for learning within curriculum design (ibid 2013).

In a study investigating the impact of learning on overall institutional satisfaction and recommendation for over 66,000 international students at 185 institutions, Ammigan and Dennis (2018) found that the learning variables influencing students' overall satisfaction were quite different from those impacting institutional recommendation. Variables centered on teaching mattered most for overall satisfaction, while variables focused on employment were most significant for institutional recommendation. In other words, the study supports the argument that the learning environment is crucially important for satisfaction, while long-term employment issues are fundamental for institutional recommendation.

In a case study discussing strategies for improving international students' academic and cultural experiences at UK institutions, Bamford (2008) outlines a few key challenges and implications that clearly demonstrate the difficulties faced by international students in their adjustment to a new academic environment. Although international students might have met the minimum language requirements for admission purposes, their ability to communicate clearly and fluently in English proved to be a stressful experience, hence the need for specialized language support. Since class participation and group interaction can be an uncomfortable experience for international students, instructors could incorporate the knowledge of students' native cultures into class discussions as a way to benefit everyone and make the students feel more at ease. Students also commented on the difficulty of making friends with local students and its impact on coping with culture shock and performing well academically. Institutions must therefore consider the social context of students' adjustment in order to address isolation issues. Initiatives and programs such as peer mentoring, language and study skills groups, and social activities and networks can help improve the international student experience. Institutions must also focus on teaching, learning and assessment strategies in an international classroom and

provide training opportunities for staff and faculty development on how to teach and communicate effectively with international students.

2.5.iii Living Experience

While the benefits of moving to another country to study are abundant academically, culturally and socially, it can also prove to be a very expensive option for students. It is therefore not surprising for international students and their families to have high hopes and expectations when it comes to the living environment that institutions provide for students, including affordable accommodation, transportation options, dining services, safety and security, internet and technology, and opportunities to meet other students locally (Brett, 2013). Life outside the classroom can be a critical aspect of any international student's experience on campus. Culture shock, social isolation, expectations from family and home, cross-cultural relationships, financial difficulties, immigration regulations, housing, employment options are all examples of issues that can lead to added stress, anxiety, and depression (Sarkodie-Mensah, 1998).

Arthur (2017, p. 887) argues that “the social integration of international students is important for their academic performance, for building a sense of connection to the destination country, and for supporting career plans post-graduation.” The author suggests two important factors that can assist international students with their social adjustment and transition to campus and at the same time reduce loneliness and homesickness: 1) the availability of counselors to discuss issues surrounding perceived intercultural adjustment and culture shock, networking skills, navigating relationships, and peer support; and 2) the opportunity to establish friendships and foster cross-cultural engagement with local students through volunteer and student leadership programs, registered student organizations, social activities in dormitories and other locations on campus.

2.5.iv Support Services Experience

International student expectations are not only about the quality of what takes place in the classroom but also about how campus life adds value to their academic experience (Brett, 2013). The support provided outside the classroom, such as tutoring, study skills, career advice, counseling services, library resources, and physical space for learning, can be equally important to maintain academic satisfaction and success on campus (Sarkodie-Mensah, 1998).

Roberts and Dunworth (2012, p. 517) argue that student support services can contribute directly to international student satisfaction and that “providers of services for international students need to be more aligned to students’ expectations of service provision, and more centered on students’ actual needs, if they are to increase students’ levels of satisfaction with their international experience”. Their study, which took place at an Australian university, found that while support services were abundant and welcomed, international students were not aware of the full range of services offered and did not understand what they were specifically for or how to access them. Students indicated that library services and the helpfulness of library staff were most useful but criticized their experience with accommodation services, suggesting a gap in expectation between the set up and delivery of these services.

Findings from the Hanassab and Tidwell (2002) study support the argument that international students can have a significant impact at institutions of higher education, and that it is critical that these students’ experiences are assessed regularly. Because of the unique needs often experienced by new international students, such as achieving financial stability, learning to adapt to the culture, establishing a network of support, and mastering the language and cultural differences in their new environment, university support services must be equipped to address concerns to avoid emotional or psychological stress possibly caused by adjustment issues. The

authors reiterate the importance for institutions to develop adequate support services and have the right level of expertise and staffing to handle new challenges faced by this community.

Providing optimum support services to the international student community not only enhances the internationalization dimension of a university but can also play an important role in attracting and retaining students (Ammigan & Perez-Encinas, 2018; Kelo et al., 2010).

2.6 International Student Satisfaction

Wiers-Jenssen, Stensaker and Groggaard (2002, p. 185) define student satisfaction as “students’ assessment of the services provided by universities and colleges”, including the quality of teaching and academic services, support facilities, physical infrastructure, and social climate, among other factors. It is a continually changing construct and a dynamic process that requires clear and effective action as a result of student feedback (Elliott & Shin, 2002). Student satisfaction with the college environment is vital as it covers the students’ subjective experience during the college years and perceptions of the value of educational experience (Astin, 1993). While most universities measure the general satisfaction of their students, few instruments are designed to specifically focus on the international student experience. Those who actively surveyed international students mostly used an in-house survey instrument and found the feedback to be effective in improving services in the areas of customer service, student advising, programming and outreach and educational training (Perez-Encinas & Ammigan, 2016).

In recent years, however, there has been a growing interest from international educators to gather and utilize international student satisfaction data to influence campus change and strengthen support services for this community. Just like at the national level, where governments are assessing their quality assurance policies with regards to meeting the needs of international students, host institutions are using student feedback, obtained via benchmarking

instruments, as an indicator of educational quality and a measure for improving services that can lead to student success (Shah & Richardson, 2016). Institutions that admit international students cannot expect these students to adjust to and be successful at their new campus without adequate levels of support, advising, and programming services (Andrade, 2006).

In investigating the relationship between student expectations and student satisfaction, Appleton-Knapp and Krentler (2006) compare student satisfaction with their educational experience to customer satisfaction in the sense that they are both driven by a set of complex personal and institutional factors. The authors found those students with exceeded expectations were more satisfied in their learning environment than those whose experience was not up to par with their expectations. Hence, having a sound understanding of what these factors or expectations are and how they in turn influence satisfaction is critical for higher education practitioners and administrators to be aware of as they ensure international student success on their respective campuses.

According to a study by Smith et al. (2013) on student support services, the main factors associated with international student attrition were: difficulty in making friends and interacting with domestic students; poor quality of services provided by the international student support and academic services offices; limited housing and on campus food options; and a lack of cultural and social activities, pre-arrival information and resources to adapt to their new campus environment. Based on data gathered from the International Student Barometer (ISB) and their own survey instrument, the authors offer five recommendations for institutions to consider when developing support related to international student experience and success: 1) student health services and support systems that include both physical and mental health care; 2) student living and campus eating places that meet the needs and preferences of students and at the same time

provide a platform for them to engage with local students; 3) professional and culturally-sensitive academic advising services including resources on academic integrity, English Language support, and career services; 4) welcome orientation and in-semester programs that cover information on student rights and responsibilities as well as help with their and their families' transition and acculturation to a new society; and 5) intercultural competency and sensitivity training to all support staff and faculty who interact with international students.

Zhao and Douglass (2012) used data from the Student Experience in the Research University (SERU) Consortium (Center for Studies in Higher Education, n.d.) to examine the experience of international students compared to US students at 15 major public research US universities. While generally satisfied with their overall academic and social experience, international students were less satisfied in those areas than their US counterparts, and questioned the value of their US education. International students were less satisfied with the quality of instruction and availability of courses in their program of study. They demonstrated a higher level of engagement in collaborative research and creative projects and spent less time working on campus and much more time on academic studies, compared to US students. The study also found that international students responded less favorably towards the climate for diversity on their campus, including respect for and freedom to express personal beliefs.

Wiers-Jenssen, Stensaker and Groggaard (2002) examined the factors leading to student satisfaction for over 12,000 first-year students at Norwegian universities, over three years. Their analysis revealed that the academic and pedagogic quality of teaching were important determinants of student satisfaction, along with social climate, aesthetic aspects of the physical infrastructure, and the quality of support services. Students indicated their highest level of satisfaction on the social climate on campus, library services, and the academic quality of

teaching. They were less satisfied with the pedagogic quality of teaching and the service level of the administrative staff.

Sahin (2014) investigated the factors that affect students' satisfaction or dissatisfaction and found the following service quality indicators to be the most significant: teaching quality, management and leadership of the university, campus life, academic services and infrastructure, and physical facilities. The city in which the university was located, the availability of public transportation, and student perceptions about their institution were also important factors that influenced satisfaction.

Butt and Rehman (2010) examined the relationship between student satisfaction and education offerings at higher education institutions and found that teachers' expertise, quality of courses offered, learning environment, and classroom facilities all enhanced satisfaction. Teachers' expertise was the most influential factor among all the variables. Recommendations from the authors included institutional efforts to induct, train, and retain qualified teachers that can promote the quality of education; courses that are designed to meet contemporary and global challenges; and conducive learning environments and classroom facilities and technology that enable interactive and effective communication between students and faculty.

Asare-Nuamah (2017) assessed the factors affecting international student satisfaction in a university setting and found that library services, contact with teachers, class size, course content, reading materials, and general administrative services were key in enhancing the student experience. The author also offered a strong recommendation for administrators and policymakers to regularly assess their students' satisfaction or dissatisfaction with university services to effectively meet their needs and in turn increase satisfaction.

Arambewela and Hall (2009) examined the differences in international student perceptions of the level of satisfaction related to education and noneducational services at institutions in Australia. The authors used seven constructs in the study—education, social, technology, economic, accommodation, safety, and prestige and image—as predictors of student satisfaction. Results showed that feedback from lecturers, good access to academic staff, and quality of teaching were perceived to be the most essential educational variables influencing student satisfaction. Counseling services, social activities, close working relationships with other students, and international orientation programs were the most significant variables within the social construct. Work during studies and cost of living were key economic factors and safety was a primary concern to international students and their families. Respondents indicated that a highly ranked international image and the prestige of a university were attractive as it would create better career opportunities for them. They also expected student accommodation to be made available by universities or by community agencies to comply with their minimum standards of comfort, at reasonable cost. Access to computer labs and the availability of modern facilities was another important expectation.

2.7 Destination Choice and Institutional Recommendation

Among the many factors that can influence international students' decision-making process in choosing an institution abroad and, given all the uncertainty that surrounds changing immigration policies and travel risks and safety, institutions must ensure that they are delivering the best academic experience and value for money. Higher education institutions must also be intentional at providing positive campus experiences that support student success and employability and use these stories and word-of-mouth referrals as part of their recruitment and retention efforts (Choudaha & van Rest, 2018).

Mavondo, Tsarenko, & Gabbott (2004) suggest that, among other factors, the concept of institutional recommendation is closely related to satisfaction and that satisfied students are more likely to engage in word of mouth communication to recommend their institution to potential or future students. These students would also return to enroll in higher degrees, become valued alumni, and offer job placement opportunities for current students. The decision of prospective international students to select an institution is based on several factors, such as institutional reputation, safety and security, university environment, quality of life, and visa requirements, but the recommendation from family, friends, and acquaintances can be influential motives in their decision-making process.

Cubillo, Sánchez, and Cerviño (2006) studied the different factors that particularly influenced the decision making process of prospective international students in selecting a university. There were five main variables that helped determine institutional choice: 1) students' personal factors including career prospects, making international contacts, improving language skills, and recommendation from family, friends and professors; 2) the host country's image including cost of living, visa procedures, social aspects, and opportunities to work; 3) the reputation of the city including safety and security, social facilities, and the local environment; 4) the status of the institution including ranking, campus atmosphere, research opportunities, experience and expertise of faculty, quality of education, and academic resources; and 5) the evaluation of the program of study including tuition cost, variety and quality of courses, and recognition by future employers.

Brett's International Student Barometer study (2013) at Australian universities indicated that 29% of international student respondents would go out of their way to actively encourage other students to apply and, whenever asked, 49% would encourage people to apply. 78% of

enrolled students at the 23 participating Australian universities were prepared to recommend their Australian experience to friends and family. Teaching quality, personal safety, and the perceived reputation of the qualification, institution and education system were the five most important factors influencing decisions on where to study. Other factors included university websites and an informal network of friends, parents, current students, and alumni.

A recent study by Universities UK International (2017) used International Student Barometer data to investigate the top five factors influencing undergraduate international students' choice of study destination at institutions in the UK. They were, in ranking order: 1) the university websites, 2) family, 3) friends, 4) league tables, and 5) education agents. These factors were consistently the top influencers in this study over five years, which is an indication of how important they are in students' selection of a destination institution. The findings also showed that the use of social media was the fastest growing influencing factor for international students throughout their process of choosing an institution. Roughly 14% of international undergraduate students in the UK used a social networking site to help them choose where to study, which was an increase of 8% from 2012.

The QS Enrolment Solutions study (2018) surveyed over 67,000 prospective international students, from 193 different countries, about their attitudes, goals and decision-making processes in choosing their next study destination. Among some the key findings, their report shows that course offerings were the main driver of student decisions on institution and location, with the expectation that the course of study would lead to career prospects. Reviews and marketing materials highlighting the quality of teaching and experience of academic staff was the second most influential factor in choosing their institution. The report also shows that prospective students were most concerned about the cost of living and being able to afford their tuition fees.

Having a relative or friend in a destination country and receiving information about local culture and customs can help reduce concerns and worries about going to study abroad and impact students' choice of a particular location. Campus safety and a welcoming environment were also important factors in international students' institutional and destination choice.

In a recent study on international student mobility conducted by Studyportals, Choudaha and van Rest (2018) found that a majority of respondents, who were prospective international students, indicated that work opportunities during their studies was an important factor in choosing their institution and destination country. The study also surveyed colleges and universities that reported an increase in international student enrollment numbers in 2017. These institutions attributed the growth in student numbers to three main factors: 1) active recruitment efforts (61.1%), 2) active outreach to admitted students (45.1%), and 3) the growing reputation and visibility of their institution (45.1%).

Institutions that actively measure student satisfaction tend to find an established relationship between student expectations and their level of satisfaction on the service they receive. For instance, in a comparative study of student satisfaction at 40 business schools in the US versus the UK, Mai (2005) developed a questionnaire based on the SERVQUAL framework to compare 322 students' educational experiences on service quality at their respective institutions. The study found that students had different levels of expectations when they study in the US than in the UK, and that US institutions provided a higher quality of education that exceeded students' expectations.

2.8 The International Student Barometer

The International Student Barometer (ISB) is the world's largest survey and leading benchmarking tool of international student satisfaction in higher education (Garrett, 2014).

Administered by i-graduate, a UK based company, the ISB tracks and compares the decision-making, expectations, perceptions, intentions and satisfaction of international students from application to graduation (i-graduate, n.d.). It enables host universities to make informed decisions on how to enhance the international student experience, optimize resource allocation and support services, provide strategic input to key investment decisions, and drive successful recruitment and marketing strategies. Since its inception in 2005, the ISB has gathered feedback from over 3 million students in over 1,400 institutions and across 33 countries (ibid n.d.). The ISB, which is the instrument used in this study, examines international student satisfaction in the arrival, learning, living, and support services dimensions of institutional experience. It also investigates students' recommendation of their institution to future applicants.

In conjunction with Universities Australia and Australian Education International, i-graduate analyzed international student satisfaction data from 36 Australian universities that used the ISB (Brett, 2013). The findings showed that Australian universities improved in student satisfaction over the past two years and did well compared to their peer institutions globally. 37,060 respondents were generally satisfied with their experiences at their respective institutions in Australia. They were satisfied with their overall arrival experience and, particularly, with social activities that facilitate making new friends locally, as well as internet access upon arrival. In terms of their learning experience, international students indicated a negative shift in how they received feedback on their academic performance, as well as opportunities to teach during their during. The indicators for overall living experience were favourable compared to the global score. However, one in two students showed dissatisfaction with the cost of living and accommodation. Australian institutions also fell behind in safety, sport facilities, internet access,

transport links and social activities. International students were generally satisfied with all aspects of the support services that they received at their institution.

The following year, Garrett (2014) released another ISB report examining data from 50 Australian, UK, and US institutions, representing over 60,000 international students. The study, which primarily focused on student recommendation, showed that a majority of respondents, consisting of undergraduate and graduate international students, were satisfied with their overall university experience. It also indicated that students' willingness to recommend their institution was closely correlated with satisfaction. Both ISB reports (Brett, 2013; Garrett, 2014) provide institutions with important insights for assessing their international student recruitment, services and retention strategies that may in turn support efforts towards enhancing the international student experience and campus internationalization.

The University of Illinois at Urbana-Champaign in the US reported their ISB findings in two parts: 1) they analyzed the experiences of their graduate and undergraduate international students in six different categories—Arrival, Support Services, Living, Learning, Advice, and Recommendations, and 2) they compared results of the 2014 analysis to what was collected in 2012 and 2013 (Antoine, Chin, & Huang, 2015). Overall, respondents had an 85% satisfaction rate with their Arrival, Support, Living and Learning experiences. Graduate students were slightly more satisfied than undergraduate students in all of these areas. 84% of undergraduate students and 88% of graduate students said they would recommend their current institution to future applicants. The 3-year comparative analysis showed that although overall satisfaction rates from 2012-2014 only varied by 1 to 2 %, the rates of satisfaction with specific aspects of their university experiences varied more from year to year. There were notable, positive changes in the level of satisfaction with respect to cost of living, welcome upon arrival, employability,

research opportunities, language and learning support, class size, academic advising, dining services, student leadership opportunities, and financial, health, and career services. Satisfaction scores dropped over those three years for visa and immigration advice and overall services provided by the international office.

Yu, Isensee, & Kappler (2016) explored how international student satisfaction data from the ISB could be used collaboratively to drive change and enhance campus internationalization at the University of Minnesota in the US. The authors found that information overload and a busy schedule during orientation, limited airport pickup services, and a lack of short term accommodation options affected student satisfaction with their arrival experience. In terms of their learning environment, international students indicated that it was highly rewarding to be involved in diverse learning activities and regular scholarly exchanges with faculty and other classmates, which they believe have led to new learning opportunities, cross-cultural perspectives, and intercultural friendships. While generally satisfied with several aspects of their living experience, the study also found that students struggled to develop friendships with local students and other international students, and often experienced a disconnect with the wider campus community outside of the classroom.

2.9 Conclusion

This chapter introduced the framework of the current study along with contextual issues and concepts within which the research takes place. It discussed existing literature and research on the international student experience and satisfaction at institutions in Australia, the UK, and the US, particularly in their arrival, learning, living, and support services environments. It reviewed international student mobility in the context of the internationalization of higher education and highlighted related research in the recruitment and retention of international

students, along with statistics, trends, and demographic data on international students studying in Australia, the UK, and the US. It also described what is meant by International Student Services and discussed the various resources and support services typically provided to international students on their respective campuses, from arrival to graduation. This chapter also explored literature on international students' destination choice and institutional recommendation to future applicants, before providing an overview of the International Student Barometer as the instrument used in this study to measure international student satisfaction with the different aspects and dimensions of experience at their institution.

CHAPTER 3: METHODOLOGY

3.1 Introduction

Chapter 3 provides an overview of the research methodology used in this study and presents information specific to research questions, variables, research design, population and sample, data collection methods, and instrumentation. It also addresses the reliability and validity of the instrument and related ethical issues. Aligned with the quantitative paradigm, and following a postpositivist approach, this study uses quantitative data collected by the International Student Barometer to evaluate the level of satisfaction and recommendation of international student respondents.

3.2 Purpose of Study

The purpose of this study is to examine the level of satisfaction and recommendation of degree-seeking, undergraduate international students with their experience at institutions of higher education in Australia, the UK, and the US. Precisely, it investigates the associations between the level of satisfaction with their arrival, learning, living, and general support services environments and institutional satisfaction, and recommendation. This study also analyzes the relationship between satisfaction variables and demographic variables such as age, gender, nationality, field of study, and source of funding. Besides contributing to the current literature on international student satisfaction, the results of this study can help generate model practices for university administrators and practitioners to effectively allocate resources and programs that support the student experience and enhance recruitment and retention strategies.

3.3 Research Questions

The primary focus of this study was to determine which aspects of the university experience international students were most or least satisfied with, and in turn, how they went

about recommending their institution to future applicants. To investigate this research interest, five guiding research questions were used. They are framed as follows:

1. What are the demographics of student respondents studying at institutions in Australia, the UK, and the US?
2. To what extent are international students satisfied with their campus arrival, learning, living, and support services environments?
3. Are there any apparent associations or correlations between international students' overall level of satisfaction with their institution and their experience with their arrival, learning, living, and support services environments?
4. How do the demographic variables of respondents (age, gender, nationality, field of study, study stage, and source of funding) impact their level of satisfaction with their institution?
5. How likely are international students to recommend their current institution to prospective applicants based on their satisfaction and experience with that institution?

3.4 Epistemology

This study uses a postpositivist philosophical worldview and a quantitative research design and method to assess satisfaction. Postpositivism, often referred to as quantitative research, develops knowledge through numeric measures of observation and measurement (Creswell, 2013). Ideas are viewed and tested as variables that are part of hypotheses and research questions and, from an ontological stand point of what is real, the researcher objectively assesses the research problem after controlling for bias and systematically selecting a sample. The strategy of inquiry used in this study to generalize from a sample to the population is an online survey, from which pre-existing statistical data is manipulated to test the hypotheses.

3.5 Research Design

To answer the research questions in this study, survey methodology was used as the research design. According to Crano & Brewer (2002), surveys “have the value of real world context and the availability of mass data in developing information about human actions” (p.17). The purpose of survey research, through the process of data collection, is to generalize findings from a sample of responses to a population (Creswell, 1994). Using pre-existing data collected from the International Student Barometer (ISB), this study uses a cross-sectional survey approach that presented the opportunity for the researcher to assess the relationship between variables and differences between subgroups in a population, and to examine the frequency with which people perform certain behaviors or hold particular attitudes or beliefs (Visser, Krosnick, & Lavrakas, 2000). This, in turn, led to the further exploration of areas within the existing data set.

Survey research, that is web-based in particular, has several advantages, namely the timeliness in fielding the survey and rapid turnaround in data collection; the quality and accuracy of data; the economy of the design; and its accessibility for large population studies (Fowler, 2009; Fricker & Schonlau, 2002). With the ISB being deployed as an online survey to thousands of students worldwide, and data on student satisfaction collected electronically every year, it allowed the researcher to cut down on cost and time in the deployment of the survey and data collected but rather provided a wider scope for the study with reduced sampling error.

This study can be considered correlational research as it investigates the relationship or correlation coefficient between quantitative independent and dependent variables (Johnson & Christensen, 2008). In correlational research, the focus is not on influencing or manipulating variables but instead, on measuring the strength of any existing associations, whether they are

positive or negative. This research methodology was chosen to evaluate the level of satisfaction of international students with four different aspects or scales of their university experiences. The very first correlation that is evaluated is the relationship between students' overall level of satisfaction with their institution and the degree to which they are satisfied with their arrival, learning, living, and general support services experiences on campus.

Based on the confidentiality agreement between the researcher and i-graduate, responses to all quantitative survey items and non-identifiable student and institutional characteristics were made available for analysis for this study. The ISB data was shared via a secure file transfer portal called SecureSend to ensure confidentiality of the information. The raw data set remained accessible to the researcher in the form of a password-protected file throughout the length of the study.

3.6 Population and Sample

The next step after specifying the survey design is to discuss the population and sampling method. Visser et al. (2000, p. 230) interprets a population “as the complete group of elements to which one wishes to generalize findings obtained from a sample.” “Elements”, here, refers to surveyed international undergraduate students, which is the unit of analysis or the unit about which information is sought. As such, the target population for this study is defined as all international undergraduate students who participated in the 2016 ISB survey from destination countries that had 5 or more participating institutions of higher education. This amounted to 66,272 international undergraduate students from a total of 186 institutions in 10 countries around the world.

The international sample in this study can be described as a nonprobability sample because students were not randomly selected. All students at participating institutions were

instead invited to fill out the ISB survey, which generally uses a single stage sampling procedure. This particular procedure refers to one in which the researcher already has access to all those who will be surveyed and can therefore sample them directly (Creswell, 1994). The ISB was deployed to all students enrolled at participating institutions for that year, hence making it a single stage sampling procedure. The sample to the population of 66,272 was 68.9%, consisting of 45,701 international undergraduate students studying at 96 institutions in Australia, the United Kingdom (UK) and the United States (US) in 2016. The sample size for international undergraduate students represented was 21,443 (46.9%) for the UK, 21,117 (46.2%) for Australia, and 3,141 in the US (6.9%). From a national enrollment perspective, the sample of Australian students used in this study represented 14.3% of all international undergraduate students who studied in Australia that year, compared to 9.2% for the UK, and 0.7% for the US. Of the 96 participating institutions in the sample, 42 (43.8%) were from the UK, 34 (35.4%) were from Australia, and 20 (20.8%) were from the US. Tables 3.1 and 3.2 illustrate the distribution of international students as well as participating institutions from the three selected destination countries.

In this study, the researcher decided to limit the sample range to undergraduate, degree-seeking students at institutions in only three countries for three main reasons. First, the sample size for both participating students and institutions from Australia, the UK and the US generated 45,701 student responses from a total of 96 institutions, which from a data analysis perspective, is a large sample size that enables the researcher to generalize findings on student experiences from this study. Second, according to Project Atlas' global mobility trends (Institute of International Education, 2016), the US, UK, and Australia were the top English-speaking study destinations that hosted the most international students and particularly undergraduate students

globally in 2016. This ranking, coupled with their leading position in higher education enrollment, were of interest to the researcher for generalization purposes. Third, while there is a robust literature base and ample research done on student mobility and experience, none provide a comparative perspective on international student satisfaction with their arrival, learning, living, and support services environments in these three countries. Findings from this unique study can contribute to existing knowledge in the field and can help generate new, benchmarked model practices for researchers and practitioners.

Table 3.1 International student distribution

(N=45,701)

Country	<i>n</i>	%
Australia	21,117	46.2%
UK	21,443	46.9%
US	3,141	6.9%
Total	45,701	100.0%

Table 3.2 Participating institution distribution

(N=96)

Country	<i>n</i>	%
Australia	34	35.4%
UK	42	43.8%
US	20	20.8%
Total	96	100.0%

3.7 Instrumentation

Information about the instrument used in a study for data collection is an important component of any survey method plan (Babbie, 2001). In this study, the questionnaire used is an intact instrument called the International Student Barometer (ISB), developed by i-graduate International Insight company in 2005. Through an established research partnership between the

researcher and i-graduate, and a signed confidentiality agreement form, the researcher received approval and permission to utilize the pre-existing data set of student satisfaction. To the researcher's knowledge, no empirical study has used this width of data to quantitatively assess international student satisfaction as extensively as this research does.

The ISB is the largest annual study of international students in the world and, since its inception, i-graduate has gathered feedback from more than 3 million students from over 1,400 education providers in 33 countries (i-graduate, n.d.). It mainly investigates international student satisfaction with their arrival, learning, and living environments, as well as their experience utilizing general support services at their respective institutions. Serving as a benchmarking mechanism for participating institutions, the ISB also gathers data on the student's application process, choice of institutions, country of preference, and post-graduation plans. An information sheet describing the ISB instrument, its scope, and its deliverables can be found in Appendix C.

The instrument was first developed as a function of what International Office representatives thought was important to understand about international students studying in the UK. The creator of the original instrument, who is an expert in the field of international education, began by drawing on advice, input, and feedback from International Officers at higher education institutions in the UK but later expanded his effort to a wider range of sources internationally. Several years later, the ISB was refined at Oxford University, UK, and at that time focus groups were held with students at different levels of study to test the instrument for student satisfaction. It was then rigorously tested and validated across the country. In 2004, additional focus groups were held with students at universities in the US and Australia. The ISB has since then been periodically tested for validity and reliability and refined through over 14

cycles as an industry standard for understanding international student satisfaction at institutions across the world (Brett, 2013).

The ISB was constructed with a combination of 267 close-ended and open-ended items, and uses a 4-point Likert scale to measure the level of satisfaction, where *1=Very Dissatisfied*, *2=Dissatisfied*, *3=Satisfied*, and *4=Very Satisfied*. The survey item that evaluates institutional recommendation uses a 5-point Likert scale, where *1=Actively Discourage*, *2=Discourage*, *3=Neither Encourage or Discourage*, *4=Encourage*, and *5=Actively Encourage*. For this study, data from only closed-ended questions in the main four categories of satisfaction, namely arrival, learning, living, and support services, were used. The arrival category focused on students' first impressions and arrival experiences to campus. Questions included welcome events and airport pickup services, orientation programs and academic registration, setting up a bank account, and getting around campus and the local community. The learning section looked at the university's academic setting. Questions included the content and quality of lectures, academic expertise and teaching quality, level of research activity, and access to and feedback from academic staff. The third category comprised questions around the living experience of students, such as the cost and quality of accommodation, campus safety and security, internet access, and opportunities to make friends with local and other international students. The last section focused on support services and resources provided by university units, such as the international office, finance department, career services, health and counseling centers, and chaplaincy and multi-faith provision.

The researcher selected twenty-five questions to be used in this study, consisting of 104 survey items. There was a set of demographic questions used for categorizing and comparing groups of students. A sample of these category items is listed in table 3.3. The complete

codebook for this study appears in Appendix B. Since the ISB is by design an independent and confidential feedback process for education providers and clients, the complete data collection instrument was not published as part to this dissertation. To establish internal consistency of the variables in the scales used in this study, Cronbach's alpha reliability tests were applied to the various satisfaction scales. The overall alpha coefficient for the arrival ($\alpha=.91$), living ($\alpha=.96$), learning ($\alpha=.96$), and support services ($\alpha=.98$) variables indicates a high reliability of the satisfaction scales in the survey. It is noted that these intercorrelations are high, but as demonstrated with the sample of survey items indicated in Table 3.3, the spread of questions (i.e., survey items) around the target constructs (e.g., Arrival, Learning) is quite variable, therefore these questions cannot be redundant, as redundancy increases alpha values. One thing to consider is that alpha values increase, in general, as questionnaire length increases (Cortina, 1993; Cronbach & Shavelson, 2004), and this questionnaire is quite long at 267 items. While the Cronbach reliability tests were applied to a subset of these total items – i.e., 104 of them, this is still a significant number of items. Streiner (2003) demonstrates that the number of items influences alpha. For example, if a 4-item scale has an alpha of, for example .8, the average correlation between items remains constant (e.g., .50), then the alpha can increase to .86 for 6 items and arrive at .95 for 20 items and the relationship between alpha and the number of items is curvilinear and levels off before 19 items (Komorita & Graham, 1965). Another issue to consider is that since the number of items is high, fixed responding (i.e., responding with the exact same value on the Likert scale) can occur and fixed responding inflates Cronbach's alpha (Weng, 2004). Fixed responding is much more likely when all items have the same polarity (4 = Very satisfied, 1 = Very dissatisfied) – and this is exactly what the ISB has done with all of its

closed-ended items – i.e., they have identical polarities—see Fong, Ho, & Lam (2010) and Jin, Chen, & Wang (2018) for a discussion of the impact of fixed responding on Cronbach alpha).

Table 3.3 Sample of survey items

Survey item	Item #	Response scale
Experience with ARRIVAL environment		
<i>Please say how SATISFIED you are with:</i>		
Welcome/pickup at airport, railway, coach station	55	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Orientation (finding my way around the local area)	60	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Setting up a bank account	61	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Meeting academic staff	62	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Condition of accommodation on arrival	64	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Experience with LEARNING environment		
<i>Please say how SATISFIED you are with:</i>		
The quality of lectures	73	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Fair and transparent assessment of my work	83	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
The size of the classes	89	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
The quality of the lecture theatres and classrooms	90	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Virtual Learning Environment	95	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Experience with LIVING environment		
<i>Please say how SATISFIED you are with:</i>		
The cost of accommodation	107	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Internet access at my accommodation	111	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Opportunities to experience the culture of this country	116	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
The social activities (organized events)	119	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Feeling safe and secure	122	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Experience with SUPPORT services		
<i>Please say how SATISFIED you are with:</i>		
Institution accounts/ finance department	149	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
International Office	150	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Counseling Service	154	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Careers Advisory Service	155	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Disability Support	163	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied
Personal Tutors	164	4=Very satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very dissatisfied

3.8 Variables in the Study

This section describes how the dependent and independent variables used in this study relate to the survey instrument, which is the International Student Barometer. An independent variable (IV) is a variable that can be manipulated and is expected to cause a change in another variable. Using the form of a dichotomous variable or stimulus, it allows the researcher to observe what happens when it is either present or absent (Babbie, 2001). Some of the major

independent variables used in this study were overall satisfaction with arrival experience, overall satisfaction with learning experience, overall satisfaction with living experience, and overall satisfaction with support services.

A dependent variable (DV), on the other hand, is a variable that is presumed to be influenced by one or more independent variables (Johnson & Christensen, 2008). Also known as an outcome variable, the DV responds to the IV and is a variable that the researcher measures. The major dependent variables used in this study were overall institutional satisfaction and recommendation.

All descriptive, dependent, independent variables, as they relate to each research question and survey items in this study, are listed in table 3.4.

Table 3.4 Variables used in this study

Research Questions	Variable Type	Variables (Survey Item #)
1. What are the demographics of student respondents studying at institutions in Australia, the UK, and the US?	Descriptive	Age (114), Gender (115), Nationality (9), Field of Study (7), Year of study (8), Source of Funding (116)
2. To what extent are international students satisfied with their campus arrival, learning, living, and support services environments?	Descriptive	Arrival (11-28), Learning (29-52), Living (53-77), Support Services (78, 95-112), Overall Satisfaction (10)
3. Are there any apparent associations or correlations between international students' overall level of satisfaction with their institution and their experience with their arrival, learning, living, and support services environments?	Dependent	Overall Satisfaction (10)
	Independent	Arrival (11-28), Learning (29-52), Living (53-77), Support Services (78, 95-112)
4. How do the demographic variables of respondents (age, gender, nationality, field of study, study stage, and source of funding) impact their level of satisfaction with their institution?	Dependent	Overall Satisfaction (10)
	Independent	Arrival (11-28), Learning (29-52), Living (53-77), Support Services (78, 95-112)
	Covariates	Age (114), Gender (115), Nationality (9), Field of study (7), Year of study (8), Source of funding (116)
5. How likely are international students to recommend their current institution to prospective applicants based on their satisfaction and experience with that institution?	Dependent	Institution Recommendation (113)
	Independent	Arrival (11), Learning (29), Living (53), Support Services (78), Overall Satisfaction (10)

3.9 Data Analysis

Pre-existing data from the International Student Barometer was obtained from i-graduate's research analysts and loaded into IBM's SPSS Statistics software for raw data management and quantitative analysis. The Premium edition, Version 24, provides univariate and multivariate analytical techniques and offers a wide range of statistical and analytical capabilities, including descriptive statistics, linear regression, factor, and cluster analysis, and provides univariate and multivariate analytical techniques and models to improve analysis accuracy (IBM, 2015).

To answer the research questions, two statistical techniques were used: descriptive statistics and inferential statistics. Descriptive statistics is a medium to describe or summarize the basic features of a set of survey data, where variables are typically summarized one at a time (Babbie, 1973). Values or coefficients are described in the form of frequency distributions and measures of central tendency provide a basis for quantitative analysis. In this study, mean and standard deviation are used as the main descriptive methods of analysis.

Inferential statistics allows the researcher to go beyond the numerical characteristics of the data and use statistical estimations, such as hypothesis testing, to draw conclusions from a sample and then generalize to the population (Babbie, 1973; Johnson & Christensen, 2008). In other words, inferential statistics is used to make predictions or inferences based on the probability that an observed difference in the data is a dependable one or one that might have happened by chance. In this study, the inferential methods of analysis used include Analysis of Variance (ANOVA), and linear and multiple regression analyses.

Hypothesis testing or significance testing is a "statistical procedure that allows researchers to use sample data to draw inferences about the population of interest" (Gravetter &

Wallnau, 2013, p. 226). In stating a null and an alternative hypothesis, the researcher uses inferential statistics to analyze data in hope of being able to reject the null hypothesis and support the alternative hypothesis (Johnson & Christensen, 2008). The p value is the probability of finding the observed results when the null hypothesis of the study question is true. For instance, $p < 0.05$ would be considered statistically significant and $p < 0.001$ would be highly statistically significant. Either p values or confidence intervals can be used to determine whether results are statistically significant. If a hypothesis test produces both, these results will agree.

For multiple regression analysis in this study, t-test will be used to test each regression coefficient for statistical significance. The researcher will check for multicollinearity in order to determine whether there are any associations between predictor independent variables before they can be included in the regression analysis. The Variance Inflation Factor will also be assessed to further confirm how much multicollinearity exists in the regression analysis.

Before beginning regression analysis, some variables had to be recoded into binary categorical variables. Also known as second-level coding, this process tends to be more inferential and focuses on pattern codes or meta codes, which reorganizes data into smaller and more meaningful units (Punch, 1998). For example, in this survey, the Source of Funding item had to be changed from descriptive or interpretive codes to inferential codes that held binary values for each variable. This process was done using the “Transform” function in SPSS.

3.10 Statistical Techniques

While all statistical analyses in this study were computed using the SPSS software, the basis for these calculations are discussed in more details below. Specifically, each research question was analyzed based on the described statistical techniques.

Research question 1: *What are the demographics of student respondents studying at institutions in Australia, the UK, and the US?*

For research question 1, descriptive statistics will be used to display frequency distributions and cross tabulations of student respondents in the 2016 International Student Barometer survey from institutions in Australia, the UK, and the US. A frequency distribution is “an organized tabulation of the number of individuals located in each category on the scale of measurement” (Gravetter & Wallnau, 2013, p. 39). In other words, it groups all individuals with the same scores together and rearranges the set of unorganized scores in order of higher scores to lower scores. Frequency distributions are usually displayed in tables or graphs. Cross tabulation is a statistical tool that the researcher uses in SPSS for this study to quantitatively analyze categorical data and jointly show their frequency distributions. The demographic variables in this study are listed as age, gender, nationality, field of study, year of study, and source of funding. Percentages were used to answer research question 1, where f stands for frequency and n is the number of scores (Gravetter & Wallnau, 2013, p. 41).

$$P = \frac{f}{n} \times 100 = \frac{f}{n} (100)$$

Research question 2: *To what extent are international students satisfied with their campus arrival, learning, living, and support services environments?*

Frequencies, means, and standard deviation were used to provide a general sense of students’ overall level of satisfaction with their respective institution, as well as with their arrival, learning, living, and general support services settings. The independent–sample t test was also used to compare means across the three institution countries.

The statistical mean, which is one of the three common measures of central tendency, is

an arithmetic average or calculated central value of a set of numbers. It is “the point in a

distribution about which the sum of the squared deviations is at a minimum” (Punch, 1998, p. 113). The mean is determined by adding all the data points in a population and then dividing the total by the number of points.

$$M_{\alpha}(\bar{x}) = \frac{\sum_{i=1}^n x_i}{n}$$

For research question 2, the average level of satisfaction is calculated using the above formula, where n is the number of respondents in the survey and x is the response scale, which can hold the value of 1, 2, 3, or 4.

The standard deviation, one of the two most popular measures of variability, is the square root of the variance, which is a measure of the average deviation from the mean in squared units (Johnson & Christensen, 2008). In other words, the standard deviation is an index of the amount of variability in a set of data, which is how far a number tends to vary from the mean (Babbie, 2001). A high standard deviation is an indication that the data is more dispersed, hence a wider range of values. The lower the standard deviation, the more compact the data points tend to be to the mean.

$$\text{Standard deviation (s)} = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

The standard deviation of the satisfaction variables is calculated using the above formula, where n is the number of respondents in the survey, x is the response scale, and \bar{x} is the mean.

To determine whether any of the differences between the means are statistically significant, ANOVA, which is “a hypothesis-testing procedure that is used to evaluate mean differences between two or more treatments or populations” (Gravetter & Wallnau, 2013, p. 387), was used to compare the p-value to the significance level to assess the null hypothesis. Since the null hypothesis states that the population means are all equal, a significance level of

0.05 would indicate a 5% risk of concluding that a difference exists when there is no actual difference (Minitab, n.d.).

Research question 3: *Are there any apparent associations or correlations between international students' overall level of satisfaction with their institution and their experience with their arrival, learning, living, and support services environments?*

Regression analysis was used to test for associations and answer research question 3. Regression analysis “is a set of statistical procedures used to explain or predict the values of a dependent variable based on the values of one or more independent variables” (Johnson & Christensen, 2008, p. 486). There are two main types of regression: simple regression, in which there is only one independent variable, and multiple regression, in which “a given dependent variable is affected simultaneously by several independent variables” (Babbie, 2001, p. 444). Multiple regression analysis, also known as an extension of a simple linear regression, can be calculated as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + u$$

where Y is the value of the DV that is being predicted or explained; β_0 is the constant or intercept; β_1 is the beta coefficient for X_1 ; X_1 is the first independent variable that is explaining the variance in Y ; and u is the error term, which captures the combined effect of omitted variables.

For instance, in research question 3, multiple regression takes the form of:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + u$$

Correlational analyses were performed to assess the relationship between the variables of satisfaction and overall institutional experience. Correlation is a statistical technique that is used to measure and describe the strength of a linear relationship between two variables, although its

value generally does not necessarily characterize their relationship (Gravetter & Wallnau, 2013). A perfect correlation is identified by a value of 1.00 (perfect positive correlation) or -1.00 (perfect negative correlation). A value of 0 indicates no relationship of consistency between the variables.

Research question 4: *How do the demographic variables of respondents (age, gender, nationality, field of study, study stage, and funding) impact their level of satisfaction with their institution?*

To answer this research question, a combination of descriptive and inferential analyses were used. A two-way logistical analysis was performed to understand how the overall satisfaction scores of international students were distributed by demographics groups. A multivariate regression analysis, with demographic variables as covariates, was conducted to look at the impact of demographic variable in associations between each dimension of experience (arrival, learning, living, and support services) and overall satisfaction. For instance, the regression equation for Chinese student respondents as a covariate looks as follows:

$$\begin{aligned}
 \text{Overall Satisfaction} = & \beta_0 + \beta_1 \text{Arrival} + \beta_2 \text{Learning} + \beta_3 \text{Living} \\
 & + \beta_4 \text{Service} + \beta_5 \text{Nationality}_{China} + \text{Error}
 \end{aligned}$$

Research question 5: *How likely are international students to recommend their current institution to prospective applicants based on their satisfaction and experience with that institution?*

Multiple regression analysis, as described above, will be used to look for associations between the dependent variable (institution recommendation) and the independent variables (satisfaction with arrival, learning, living, support services, and overall satisfaction) to answer research question 5. In each analysis, the dependent variable will take the form of a demographic

variable and the independent variables will be the satisfaction variables in the study. The multiple regression equation will look as follows:

$$i_{rec} = \beta_0 + \beta_1 a_{eval} + \beta_2 a_{learning} + \beta_3 a_{living} + \beta_4 a_{c} + \beta_5 a_{a} + \beta_6 a_{c}$$

Correlational analyses were performed to assess the relationship between the variables of satisfaction and institutional recommendation.

3.11 Ethical Issues

Social science research usually entails some degree of ethical issues since it involves collecting data from or about people (Punch, 1998). One of the components of a well-designed study is that ethical issues surrounding the research are accounted for prior to collecting data. When proposing a study, the researcher must be aware of ethical issues that may arise and know how to deal with them ahead of time. While more prevalent in qualitative research and approaches, ethical issues may arise at all stages of a study and can generally relate to “harm, consent, deception, privacy and confidentiality of data” (Punch, 1998, p. 281).

In carrying out this research, the Institutional Review Boards at Universita Cattolica del Sacro Cuore and the University of Delaware were consulted. While it was deemed not necessary to apply for ethical board approval at Universita Cattolica, the University of Delaware, which is the researcher’s site of professional activity, declared the study exempt from the requirements of human subject protection. This was because non-identifiable and pre-existing, secondary data was used for analysis. A copy of the approval letter is included in Appendix D.

An online consent form accompanied the International Student Barometer survey that was deployed to all participating international students at institutions in the three countries. The form clearly disclosed information on the purpose of the survey, explained what participants will

be asked to do, and covered instructions on what to do if students experience possible risks and discomforts while taking the survey. It also described the benefits to the ISB research related to improved service and quality at their institutions and explained how the data will be confidentiality and privately maintained. There were no associated costs or compensation for the survey takers although incentives in the form of raffle prizes were provided at some institutions. Information regarding the process, eligibility and prize was included in the consent form.

3.12 Limitations

An important parameter for any research study takes into account any limitations that were not controlled by the researcher and that might influence the analysis of data and obtained results (Creswell, 1994). The first limitation of this study is that the sample only reflects student feedback from client institutions that participated in the ISB in the year of data collection. While the participation rate was strong, it was not possible to distinguish by type of institution or the way they were organized. Second, only undergraduate, degree-seeking students were included in the data, overlooking perspectives of student mobility, which include graduate and English as a Second Language students, as well as credit-bearing, non-degree-seeking students. Third, the sample size of students from US institutions was relatively small, consisting of only 6.7% of the population and 0.7% nationally. Fourth, the study does not account for the level of cultural adaptation of students at the time they took the survey. This might have had an influence on the experience and potentially the level of satisfaction of students at the time they took the survey. Fifth, data on academic achievement was not collected and available for analysis. How well a student is doing academically might have an impact on how satisfied they are with their university experience. Finally, the researcher did not have access to answers from open ended questions on the questionnaire, which could have provided a qualitative context on response bias.

This was prevented by the confidentiality agreement between i-graduate and the researcher to ensure unidentifiable information from participating client institutions.

3.13 Conclusion

Chapter 3 discussed the purpose and scope of this study, along with its epistemology. It introduced the main research questions, suggested the research design and instrumentation, and defined all the descriptive, independent and dependent variables related to the research questions. This chapter also provided an overview of the data analysis methods and statistical techniques used in the study and concluded with a discussion on ethical issues and limitations.

CHAPTER 4: RESULTS

4.1 Introduction

This chapter discusses the findings of a quantitative study that investigates the satisfaction level of degree-seeking, undergraduate international students with their arrival, learning, living, and support services environments at institutions of higher education in Australia, the UK, and the US. Results are organized in five main sections, with each one answering a research question. The first section answers research question 1 about the demographics of participating international students. Using cross tabulation, the frequency distributions for demographic variables (age, gender, nationality, field of study, year of study level, and source of funding) were presented in the first section. Sections 2, 3, 4 and 5 focus on the relationship among the variables of satisfaction and institutional recommendation in various aspects and environments at their institutions. A combination of descriptive and inferential statistics was used to answer the research questions in these sections. For research question 2, frequency, means, standard deviation were used to identify the satisfaction arrival, learning, living, support services, and overall university experience. ANOVA was also used to compare means across institution countries. For question 3, 4, and 5, multiple regression analyses were used. The IBM SPSS Statistics software, Version 24, was used to compute all statistical analyses in this study. As in most surveys, not all respondents answered all questions. Items with missing responses were not excluded from the construction and the analysis of the index, ensuring that findings did not result from a biased sample. Information on missing cases, which is factored into the SPSS analyses used for this study, is described in the results sections below, whenever applicable.

4.2 Demographic Profile of Respondents

Research question 1: *What are the demographics of student respondents studying at institutions in Australia, the UK and the US?*

In 2016, 45,701 international undergraduate students from 96 institutions in Australia, the UK and the US, participated in the International Student Barometer. Of this sample, 21,117 (46.2%) students were from Australian institutions, 21,443 (46.9%) were from the UK, and 3,141 (6.9%) were from the US. Of the 96 participating institutions in the sample, 42 (43.8%) were from the UK, 34 (35.4%) were from Australia, and 20 (20.8%) were from the US. Tables 3.1 and 3.2 in the Population and Sample section of Chapter 3 illustrate the distribution of international students and participating institutions from Australia, the UK and the US. To answer research question 1, frequency distributions for age, gender, nationality, field of study, year of study level, and source of funding of international students were presented.

4.2.i Age Distribution

The frequency distribution for age, displayed in Table 4.1, shows that 90% of respondents at institutions across the Australia, UK and US combined were 25 years old or younger: 49.6% were between 21-25, and 40.4% were 20 years old or younger. At Australian institutions, 10,071 (59.1%) students were between 21-25; 4,363 (25.6%) were 20 years old or younger; 1,756 (10.3%) were between 26-30; 507 (3%) were between 31-35; 208 (1.2%) were between 36-40; and less than 1% were 41 years old and older. At institutions in the UK, 10,375 (51.5%) students were 20 years old or younger; 8,467 (42.1%) were between 21-25; 680 (3.4%) were between 26-30; 242 (1.2%) were between 31-35; 152 (0.8%) were between 36-40; and less than 1% were 41 years old and older. At institutions in the US, 1,249 (51.5%) students were 20 years old or younger; 1,077 (44.4%) were between 21-25; 71 (2.9%) were between 26-30; 17

(0.7%) were between 31-35; less than 1% were 36 years old and older. 6,146 (13.4%) of all respondents in this survey chose not to answer this question about age: 4,085 (8.9%) from Australia; 1,346 (2.9%) from the UK, and 715 (1.6%) from the US.

Table 4.1 Age distribution of international students by institution country

(N=39,555)

Age	Australia		UK		US		Total
	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>% within Age</i>
20 and younger	4363	25.6%	10375	51.6%	1249	51.5%	40.4
21-25	10071	59.1%	8467	42.1%	1077	44.4%	49.6
26-30	1756	10.3%	680	3.4%	71	2.9%	6.3
31-35	507	3.0%	242	1.2%	17	0.7%	1.9
36-40	208	1.2%	152	0.8%	8	0.3%	0.9
41-45	79	0.5%	82	0.4%	0	0.0%	0.4
46-50	34	0.2%	49	0.2%	2	0.1%	0.2
51 and older	14	0.1%	50	0.2%	2	0.1%	0.2
Total	17032	100.0	20097	100.0	2426	100.0	100.0

4.2.ii Gender Distribution

Table 4.2 displays the frequency distribution for gender, which determined that 22,691 (58.1%) of all respondents were female and 16,352 (41.8%) were male. Seven students preferred not to say and 28 students identified themselves as Transgender FTM, Non-binary/gender fluid/genderqueer, and Indeterminate/Intersex/Unspecified, displayed in the Table 4.2 in the Other category. At Australian institutions, 9,471 (58.4%) respondents were female, 6,721 (41.4%) were male, and 24 (0.1%) were in the Other category. At UK institutions, 11,982 (59.0%) were female, 8,323 (41.0%) were male, 7 preferred not to say, and 4 were in the Other category. At US institutions, there were 1,281 (50.9%) males and 1,238 (49.1%) females. 6,650 (14.6%) of all respondents in this survey did not complete this survey question on gender: 4,901 (10.7%) from Australia; 1,127 (2.5%) from the UK, and 622 (1.4%) from the US.

Table 4.2 Gender distribution of international students by institution country

(N=39,051)

Gender	Australia		UK		US		Total
	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>% within Gender</i>
Female	9471	58.4%	11982	59.0%	1238	49.1%	58.1%
Male	6721	41.4%	8323	41.0%	1281	50.9%	41.8%
Other	24	0.1%	4	0.0%	0	0.0%	0.1%
Prefer not to say	0	0.0%	7	0.0%	0	0.0%	0.0%
Total	16216	100.0%	20316	100.0%	2519	100.0%	100.0%

4.2.iii Nationality Distribution

International respondents in the 2016 ISB held 204 different nationalities. Nationality, in the context of this survey, is defined as nationals of nation-states and territories around the world. Table 4.3 displays the top 10 nationality frequency distribution for international students across institutions in Australia, UK and US. 18.5% (8,434) of all respondents were from China, followed by Malaysia (8.4%), and US (4.1%). As for leading nationalities at Australian institutions, 5,066 (24%) respondents were from China, 2,475 (11.7%) were from Malaysia, 1,324 (6.3%) were from Singapore, 1,205 (5.7%) were from Hong Kong, 976 (4.6%) were from India, and all remaining nationalities were 4% or less in their representation. At institutions in the UK, there were 2,151 (10%) respondents from China, 1,178 (5.5%) were from Malaysia, 1,111 (5.2%) were from the US, 862 (4%) were from Germany, and all remaining nationalities were less than 4% in their representation. At institutions in the US, 1,217 (38.7%) of students were from China, 226 (7.2%) were from South Korea, 211 (6.7%) were from India, 169 (5.4%) were from Malaysia, 164 (5.2%) were from Saudi Arabia and all remaining nationalities were less than 2.5% in their representation. All participants in the survey responded to this question. The comparative frequency distribution for all 204 nationalities is reported in Appendix E.

Table 4.3 Top ten nationality distribution of international students by institution country

(N=45,701)

Nationality	Australia		UK		US		Total
	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>% within Nationality</i>
China	5066	24.0%	2151	10.0%	1217	38.7%	18.5%
Malaysia	2475	11.7%	1178	5.5%	169	5.4%	8.4%
USA	749	3.5%	1111	5.2%	0	0.0%	4.1%
Hong Kong	1205	5.7%	530	2.5%	40	1.3%	3.9%
Singapore	1324	6.3%	421	2.0%	19	0.6%	3.9%
India	976	4.6%	552	2.6%	211	6.7%	3.8%
Germany	234	1.1%	862	4.0%	35	1.1%	2.5%
France	177	0.8%	787	3.7%	31	1.0%	2.2%
South Korea	488	2.3%	245	1.1%	226	7.2%	2.1%
Vietnam	748	3.5%	129	0.6%	68	2.2%	2.1%

Table 4.4 shows the nationality distribution of respondents by regions of the world, namely Sub Saharan Africa, Asia, Europe, Latin America & Caribbean, Middle East & North Africa, North America, and Oceania. These regional categories were based on the Institute of International Education’s Open Doors Report classification of places of origin (Institute of International Education, 2017b). 24,701 (54.1%) of all respondents were from Asia, followed by 12,690 (27.8%) from Europe, 2,611 (5.7%) from North America, 2,429 (5.3%) from Sub-Saharan Africa, 1,662 (3.6%) from the Middle East and North Africa, 1,049 from Latin America and the Caribbean, 537 (1.2%) from Oceania. Thirteen international students chose “Other” for their nationality. Students from Asia led the number of respondents at Australian institutions (76.3%), followed by students from Europe (8.3%). At UK institutions, most students were from Europe (49.7%), followed by Asia (29.9%), and North America (6.8%). At US institutions, 54.1% of respondents were from Asia, followed by 27.8% from Europe, and 5.7% from North America. Students from Oceania were the least represented across institutions in Australia, UK and US.

Table 4.4 Nationality distribution of international students by region and institution country

(N=45,701)

Region	Australia		UK		US		Total
	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>% within Region</i>
Africa, Sub-Saharan	871	4.1%	1429	6.7%	129	4.1%	5.3%
Asia	16113	76.3%	6404	29.9%	2193	69.8%	54.1%
Europe	1759	8.3%	10659	49.7%	272	8.7%	27.8%
L. America & Caribbean	477	2.3%	346	1.6%	226	7.2%	2.3%
Middle East & N. Africa	469	2.2%	932	4.3%	261	8.3%	3.6%
North America	1118	5.3%	1463	6.8%	30	1.0%	5.7%
Oceania	306	1.4%	202	0.9%	29	0.9%	1.2%
Other	4	0.0%	8	0.0%	1	0.0%	0.0%
Total	21117	100.0%	21443	100.0%	3141	100.0%	100.0%

4.2.iv Year of Study Distribution

The year of study frequency distribution for survey participants are displayed in Table 4.5. 17,224 (37.7%) of all respondents reported that they were studying in a year other than their first or last year, described as “Other Year” in Table 4.5. 16,490 (36.1%) were in their first year of study, 11,321 (24.8%) were in their last year, and 666 (1.5%) were enrolled in a shorter course at their institution, contributing towards their undergraduate degree. At Australian institutions, 8,259 (39.1%) students were studying in a year other than their first or last year, 6694 (31.7%) were in their first year, 5756 (27.3%) were in their last year, and 408 (1.9%) were in a short course. At UK institutions, 8625 (40.2%) students were in their first year, 7728 (36.0%) were in an “Other Year”, 4923 (23.0%) were in their last year, and 167 (0.8%) were in a short course. In the US, 1237 (39.4%) were enrolled in “Other Year”, 1171 (37.3%) were in their first year, 642 (20.4%) were in their last year, and 91 (2.9%) were in enrolled in a short course. All participants in the survey responded to this question.

Table 4.5 Year of study distribution of international students by institution country

(N=45,701)

Year of Study	Australia		UK		US		Total
	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>% within Yr. of Study</i>
First Year	6694	31.7%	8625	40.2%	1171	37.3%	36.1%
Other Year	8259	39.1%	7728	36.0%	1237	39.4%	37.7%
Last Year	5756	27.3%	4923	23.0%	642	20.4%	24.8%
Short Course	408	1.9%	167	0.8%	91	2.9%	1.5%
Total	21117	100.0%	21443	100.0%	3141	100.0%	100.0%

4.2.v Field of Study Distribution

International respondents studied in 23 different fields. The frequency distribution for leading fields of study is shown in Table 4.6. 10,268 (22.5%) respondents were studying Business & Administrative Studies, followed by 5,764 (12.6%) in Engineering, 3,814 (8.3%) in Biological Sciences, 3,710 (8.1%) in Programs and Subjects aligned with Medicine, and 3,057 (6.7%) in Social Studies. At Australian institutions, 5,374 (25.4%) students studies Business & Administrative Studies, 2,952 (14.0%) were in Engineering, and 2,687 (12.7%) were in Programs aligned with Medicine. In the UK, 3,575 (16.7%) respondents were in Business & Administrative Studies, 2,465 (11.5%) were in Engineering, 2,080 (9.7%) were in Biological Sciences, and 2,028 (9.5%) were in Social Studies. In the US, 1,319 (42.0%) were in Business & Administrative Studies, 347 (11.0%) were in Engineering, and 261 (8.3%) students reported Other as their field of study. The comparative frequency distribution for all 23 fields of study is reported in Appendix F. All participants in the survey responded to this question.

Table 4.6 Top ten field of study distribution of international students by institution country

(N=45,701)

Field of Study	Australia		UK		US		Total
	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>% within Fld. of Study</i>
Business & Admin. Studies	5374	25.4%	3575	16.7%	1319	42.0%	22.5%
Engineering	2952	14.0%	2465	11.5%	347	11.0%	12.6%
Biological Sciences	1552	7.3%	2080	9.7%	182	5.8%	8.3%
Programs allied to Medicine	2687	12.7%	980	4.6%	43	1.4%	8.1%
Social Studies	883	4.2%	2028	9.5%	146	4.6%	6.7%
Other	1767	8.4%	885	4.1%	261	8.3%	6.4%
Math & Computer Sciences	450	2.1%	1484	6.9%	203	6.5%	4.7%
Law	398	1.9%	1244	5.8%	12	0.4%	3.6%
Creative Arts & Design	544	2.6%	968	4.5%	100	3.2%	3.5%
Medicine & Dentistry	927	4.4%	563	2.6%	34	1.1%	3.3%

4.2.vi Source of Funding Distribution

The frequency distribution for the source of funding of international students, as shown in Table 4.7, indicates that 23,525 (67.4%) of respondents used family funds to pay for their education. 4,645 (13.3%) had government funding, 3,089 (8.9%) took out a loan, 2,422 (6.9%) used their own funds, 902 (2.6%) had a different source of funding, and 301 (0.9%) received financial support from their employer. At Australian institutions, the leading sources of funding were family funds (77.8%), own funds (7.9%), and government funds (7.8%). The leading sources of funding at UK institutions were family funds (56.2%), followed by government funds (19.2%), and loans (14.9%). And at US institutions, the leading sources of funding at UK institutions were family funds (79.7%), followed by government funds (7.4%), and own funds (6.6%). 10,817 (23.7%) of all respondents in this survey chose not to answer this question about source of funding: 5,623 (12.3%) from Australia; 4,463 (9.8%) from the UK, and 731 (1.6%) from the US.

Table 4.7 Source of funding distribution of international students by institution country

(N=34,884)

Source of Funding	Australia		UK		US		Total
	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>% within Funding</i>
Family funds	12056	77.8%	9549	56.2%	1920	79.7%	67.4%
Govt. funds	1203	7.8%	3264	19.2%	178	7.4%	13.3%
Loan	527	3.4%	2535	14.9%	27	1.1%	8.9%
Own funds	1224	7.9%	1038	6.1%	160	6.6%	6.9%
Other financial	370	2.4%	440	2.6%	92	3.8%	2.6%
Employer funds	114	0.7%	154	0.9%	33	1.4%	0.9%
Total	15494	100.0%	16980	100.0%	2410	100.0%	100.0%

4.3 Satisfaction with University Experience

Research question 2: *To what extent are international students satisfied with their campus arrival, learning, living, and support services environments?*

4.3.i Satisfaction with Dimensions of Overall University Experience

Table 4.8 shows the extent to which international students were satisfied, overall, with various aspects and environments at their institution. The demographic analysis of data showed that respondents were satisfied with all aspects of their institution (Mean=3.15). Specific to institutional environments, students were slightly more satisfied with their overall arrival experience (Mean=3.13) than overall living experience (Mean=3.07), overall learning experience (Mean=3.06), and overall experience with support services (Mean=3.02).

Table 4.8 Satisfaction with overall institution experience

(4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)

Variables of Satisfaction	N	Mean	SD
Overall satisfaction with all aspects of institution	45701	3.15	0.659
Overall satisfaction with arrival experience	15366	3.13	0.615
Overall satisfaction with learning experience	43793	3.06	0.621
Overall satisfaction with living experience	39663	3.07	0.632
Overall satisfaction with support services	36210	3.02	0.557

4.3.ii Comparative Satisfaction with Dimensions of Overall University Experience

Table 4.9 shows the comparative frequencies, means, and standard deviations of overall student satisfaction with various aspects and environments at institutions in Australia, UK and US. International students at institutions in all three countries were generally satisfied, overall, with all aspects of their institution. However, students in the UK (Mean=3.21) showed a higher satisfaction than those in the US (Mean=3.13) and in Australia (Mean=3.09). Specific to institutional environments, students in Australia were slightly more satisfied with their overall arrival experience (Mean=3.11) than overall living experience (Mean=3.04), overall learning experience (Mean=3.01), and overall experience with support services (Mean=2.99). Similarly, in the UK, respondents were more satisfied with their overall arrival experience (Mean=3.15) than overall living experience (Mean=3.1), overall learning experience (Mean=3.1), and overall experience with support services (Mean=2.04). In the US, respondents were more satisfied with their overall arrival experience (Mean=3.11) than overall learning experience (Mean=3.1), overall living experience (Mean=3.02), and overall experience with support services (Mean=3.0).

International students in the UK (Mean=3.15) were more satisfied with their arrival experience than those in Australian (Mean=3.11) and in the US (Mean=3.15). Students in the UK (Mean=3.1) and US (Mean=3.15) were more satisfied with their learning experience than those in Australia (Mean=3.01). Students in the U.K (Mean=3.1) were more satisfied with their living experience than those in Australia (Mean=3.04) and the US (Mean=3.02). Students in the UK (Mean=3.04) were also more satisfied with their experience using support services than those in the US (Mean=3.0) and in Australia (Mean=2.99).

A one-way ANOVA was also conducted to compare the levels of satisfaction of international students at institutions across Australia, the UK and the US. There was a statistically significant difference between the means of satisfaction of overall university experience [$F(2, 45698)=204.027, p<.001$], arrival experience [$F(2, 15363)=10.499, p<.001$], learning experience [$F(2, 43790)=111.747, p<.001$], living experience [$F(2, 39660)=51.987, p<.001$], and experience using support services [$F(2, 36207)=36.377, p<.001$].

*Table 4.9 Comparative satisfaction with overall institution experience
(4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)*

Variables of Satisfaction	Australia			UK			US		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
All aspects of institution	21117	3.09	0.625	21443	3.21	0.679	3141	3.13	0.697
Overall Arrival	6366	3.11	0.578	7911	3.15	0.64	1089	3.11	0.632
Overall Learning	20309	3.01	0.601	20517	3.1	0.637	2967	3.1	0.616
Overall Living	17834	3.04	0.598	19070	3.1	0.662	2759	3.02	0.61
Overall Support Services	16211	2.99	0.548	17548	3.04	0.569	2451	3	0.523

4.3.iii Satisfaction with Variables within Each Dimension of University Experience

Table 4.10 shows means and standard deviations of respondents' level of satisfaction with all variables of their arrival experience at their institution. Students were most satisfied in their experience with the formal welcome provided by their institution (Mean=3.18), meeting their academic staff (Mean=3.18), and the accommodation office upon arrival (Mean=3.18). They were the least satisfied with the ability to make friends with local natives (Mean=2.99), internet access at their accommodation (Mean=3.03), and their experience setting up a bank account (Mean=3.03). The demographic review shows that respondents were generally satisfied with all aspects of their arrival experience.

Table 4.10 Satisfaction with arrival experience

(4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)

Arrival Variables	N	Mean	SD
Formal welcome	14124	3.18	0.658
Meeting academic staff	14324	3.18	0.639
Accommodation Office	3836	3.18	0.672
Making friends from other countries	13019	3.17	0.687
Getting to first night stay	11554	3.16	0.695
Finance department	2818	3.16	0.631
Academic registration	14840	3.15	0.659
Institution orientation	14193	3.14	0.66
Welcome/Airport pickup	8313	3.13	0.762
Condition of accommodation	11511	3.13	0.741
Understanding course registration	14909	3.08	0.713
The social activities	12171	3.07	0.665
Making friends from home country	11973	3.07	0.761
Finding way around	13639	3.06	0.684
Bank account setup	11689	3.03	0.78
Internet access at accommodation	12397	3.03	0.818
Making friends from this country	13032	2.99	0.795

Table 4.11 shows means and standard deviations of respondents' level of satisfaction with all variables of their learning experience. Students were most satisfied with their institution's academic staff command of English (Mean=3.33), online library services (Mean=3.31), and the expertise of lecturers (Mean=3.3). They were the least satisfied with factors related to employment and employability in their learning environment: opportunities for work experience during their studies (Mean=2.91), career guidance from academic staff (Mean=2.92) and learning opportunities that they thought would directly lead to job (Mean=3.02). The demographic review shows that respondents were generally satisfied with all aspects of their learning experience.

Table 4.11 Satisfaction with learning experience

(4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)

Learning Variables	N	Mean	SD
Academic staff English command	39601	3.33	0.67
Online library facilities	38389	3.31	0.661
Expertise of lecturers	39912	3.30	0.618
Physical library facilities	38402	3.29	0.703
Quality of labs	25820	3.27	0.670
Learning technology	38788	3.27	0.668
Virtual Learning	38517	3.27	0.652
Studying with people other cultures	39048	3.26	0.672
Improve English language skills	28929	3.23	0.668
Quality of classrooms	39755	3.22	0.687
Access to academic staff	37604	3.20	0.678
Academic content	39913	3.19	0.643
Size of the classes	39500	3.17	0.652
Teaching ability of lecturers	39844	3.15	0.654
Level of research activity	36311	3.13	0.641
Assessment of coursework	37260	3.13	0.659
Quality of lectures	39940	3.12	0.629
Organisation of course	39791	3.11	0.679
Feedback on coursework	37532	3.06	0.702
Explanation of marking	38355	3.06	0.712
Leading to a good job	36817	3.02	0.711
Career guidance from academic staff	34597	2.92	0.757
Opportunities for work during studies	34524	2.91	0.815

Table 4.12 shows means and standard deviations of respondents' level of satisfaction with all variables of their living experience. Students were most satisfied with the sense of safety and security at their institution (Mean=3.26), the quality of the external campus environment (Mean=3.25), and the surroundings outside their institutions (Mean=3.23). They were the least satisfied with factors related to financial support in their living environment: the availability of financial support (Mean=2.56), cost of accommodation (Mean=2.62), and the ability to earn money while studying (Mean=2.63).

Table 4.12 Satisfaction with living experience

(4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)

Living Variables	N	Mean	SD
Safety and security	38073	3.26	0.666
Quality of external campus	37733	3.25	0.628
Surroundings outside institution	37933	3.23	0.642
Quality of campus buildings	37867	3.19	0.661
Eco-friendliness attitude	36303	3.17	0.641
Making friends from other countries	37502	3.16	0.695
Religious worship facilities	22380	3.12	0.650
Experience local culture	37238	3.11	0.687
Quality of accommodation	31300	3.10	0.683
Transportation around campus	35522	3.09	0.738
Access to suitable accommodation	16234	3.08	0.653
Making friends from my home country	35141	3.08	0.753
Transportation to other places	36927	3.06	0.723
Sports facilities	32349	3.04	0.748
Social activities	34774	3.03	0.684
Internet access	35780	3.02	0.802
Social facilities	34173	3.02	0.687
Immigration and visa advice	26889	3.02	0.697
Making friends from this country	37555	2.97	0.805
Networking	35729	2.94	0.718
Cost of living	37109	2.71	0.741
Earn money while studying	30787	2.63	0.819
Cost of accommodation	31334	2.62	0.816
Financial support	29915	2.56	0.867

Table 4.13 shows means and standard deviations of respondents' level of satisfaction with all variables of their experience with support services. Students were most satisfied with their institution's provision of chaplaincy or multi-faith resources (Mean=3.35), services of personal tutors (Mean=3.33), and their comfort and welfare in their residence halls due to services made available by their institution (Mean=3.3). They were the least satisfied with services provided by campus eating places (Mean=3.06), the accommodation office (Mean=3.12), and the accounts or finance department (Mean=3.12). The demographic review shows that respondents were generally satisfied with all aspects of support services provided by their institution.

Table 4.13 Satisfaction with support services

(4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)

Support Services Variables	N	Mean	SD
Chaplaincy or multi-faith	2956	3.35	0.624
Personal Tutors	12268	3.33	0.660
Residence Hall welfare	5827	3.30	0.642
IT and system support	14949	3.28	0.609
Student Union	16843	3.28	0.608
Clubs/Societies	18071	3.28	0.589
Disability Support	2138	3.27	0.675
Student Advisory Service	14218	3.25	0.619
Careers Advisory	8972	3.23	0.674
International Office	11276	3.22	0.632
Language/Learning support	3938	3.22	0.542
Health Centre	12784	3.19	0.706
Counselling	5401	3.16	0.722
Finance department	9705	3.12	0.651
Accommodation Office	10912	3.12	0.687
Campus eating places	25157	3.06	0.714

4.3.iv Comparative Satisfaction with Variables within Each Dimension of University Experience

In table 4.14, the comparative frequencies, means, and standard deviations of student satisfaction with all variables of their arrival experience at institutions in Australia, UK, and US. At Australian institutions, respondents were most satisfied, upon arrival, with their experience setting up a bank account (Mean=3.17), using the finance department (Mean=3.17), and with the accommodation office upon arrival (Mean=3.17). They were the least satisfied with the ability to make friends with local natives upon arrival (Mean=2.86), internet access at their accommodation (Mean=2.93), and finding their way around the local area (Mean=2.95). At UK institutions, respondents were most satisfied, upon arrival, with making friends from other countries (Mean=3.27), meeting their academic staff (Mean=3.23), and with the formal welcome provided by their institution (Mean=3.21). They were the least satisfied with the ability to set up their bank account (Mean=2.87), making friends with those from their home country (Mean=3.06), and making friends with local natives (Mean=3.08). At US institutions,

respondents were most satisfied, upon arrival, with meeting their academic staff (Mean=3.24), setting up a bank account (Mean=3.24), and with the formal welcome provided by their institution (Mean=3.21). They were the least satisfied with the opportunity to make friends with local natives (Mean=3.0), internet access at their accommodation (Mean=3.11), and the initial academic registration process (Mean=3.11).

A one-way ANOVA was also conducted to compare the levels of satisfaction of international students with their arrival experience at institutions across Australia, the UK, and the US. There was a statistically significant difference between the mean levels of satisfaction of arrival variables: formal welcome [$F(2, 14121)=26.209, p<.001$], setting up a bank account [$F(2, 11686) 235.722, p<.001$], meeting academic staff [$F(2, 14321)=71.926, p<.001$], making friends with local students [$F(2, 13029)=116.141, p<.001$], and making friends from other countries [$F(2, 13016)=162.014, p<.001$].

Table 4.14 Comparative satisfaction with arrival experience

(4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)

Arrival Variables	Australia			UK			US		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Academic registration	6074	3.12	0.654	7687	3.18	0.647	1079	3.11	0.751
Accommodation Office	1018	3.17	0.646	2373	3.17	0.685	445	3.19	0.667
Bank account setup	4900	3.17	0.671	5806	2.87	0.846	983	3.24	0.696
Condition of accommodation	3826	3.05	0.725	6717	3.17	0.744	968	3.14	0.761
Finance department	786	3.17	0.556	1723	3.15	0.65	309	3.13	0.697
Finding way around	5251	2.95	0.707	7319	3.12	0.654	1069	3.12	0.718
Formal welcome	5742	3.13	0.659	7321	3.21	0.648	1061	3.21	0.708
Getting to first night stay	3835	3.12	0.684	6753	3.19	0.695	966	3.12	0.723
Institution orientation	6001	3.14	0.67	7131	3.14	0.639	1061	3.18	0.738
Internet access at accommodation	4793	2.93	0.82	6661	3.1	0.815	943	3.11	0.766
Making friends from home country	4806	3.07	0.72	6215	3.06	0.798	952	3.16	0.71
Making friends from other countries	5023	3.05	0.675	7019	3.27	0.678	977	3.12	0.693

Making friends from this country	5037	2.86	0.795	7018	3.08	0.787	977	3	0.76
Meeting academic staff	5700	3.1	0.652	7563	3.23	0.617	1061	3.24	0.676
The social activities	4667	2.98	0.67	6539	3.12	0.66	965	3.17	0.635
Understanding course registration	6063	3.03	0.71	7774	3.11	0.709	1072	3.14	0.735
Welcome/Airport pickup	3909	3.15	0.746	3545	3.11	0.778	859	3.16	0.768

In table 4.15, the comparative frequencies, means, and standard deviations of student satisfaction with all variables of their learning experience at institutions in Australia, UK, and US. At Australian institutions, respondents were most satisfied with their online library facilities (Mean=3.27), the English command of the academic staff (Mean=3.25), and with the virtual learning environment at their disposal (Mean=3.24). They were the least satisfied with finding work opportunities during their studies (Mean=2.83), getting career guidance from academic staff (Mean=2.84), and learning opportunities that they thought would lead directly to a job (Mean=2.96). At UK institutions, respondents were most satisfied with the English command of the academic staff (Mean=3.41), the expertise of lecturers (Mean=3.39), and physical library facilities (Mean=3.37). Like at Australian institutions, students studying in the UK were the least satisfied with finding work opportunities during their studies (Mean=2.97), getting career guidance from academic staff (Mean=2.98), and learning opportunities that they thought would lead directly to a job (Mean=3.06). At US institutions, respondents were most satisfied with the English command of the academic staff (Mean=3.32), physical library facilities (Mean=3.3), and with learning technologies such as workstations, networking, etc. (Mean=3.29). Similar to students in Australia and the UK, students studying in the US were the least satisfied with finding work opportunities during their studies (Mean=3.05), getting career guidance from academic staff (Mean=3.08), and learning opportunities that they thought would lead directly to a job (Mean=3.12).

A one-way ANOVA was also conducted to compare the levels of satisfaction of international students with their learning experience at institutions across Australia, the UK, and the US. There was a statistically significant difference between the mean levels of satisfaction of learning variables: academic staff command of English [$F(2, 39598)=280.270, p<.001$], finding work opportunities during studies [$F(2, 34521)=166.127, p<.001$], and online library facilities [$F(2, 38386)=90.952, p<.001$].

Table 4.15 Comparative satisfaction with learning experience

(4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)

Learning Variables	Australia			UK			US		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Academic content	18038	3.15	0.625	19134	3.23	0.659	2741	3.23	0.628
Academic staff English command	17952	3.25	0.666	18931	3.41	0.669	2718	3.32	0.634
Access to academic staff	17246	3.13	0.673	17655	3.26	0.681	2703	3.24	0.646
Assessment of coursework	17717	3.08	0.655	16815	3.17	0.664	2728	3.19	0.627
Career guidance from academic staff	15711	2.84	0.753	16295	2.98	0.758	2591	3.08	0.715
Expertise of lecturers	18050	3.23	0.609	19119	3.39	0.616	2743	3.26	0.619
Explanation of marking	17844	3.03	0.707	17785	3.07	0.726	2726	3.17	0.637
Feedback on coursework	17643	3.02	0.696	17172	3.09	0.712	2717	3.16	0.655
Improve English language skills	14029	3.16	0.658	12504	3.31	0.671	2396	3.25	0.669
Leading to a good job	16745	2.96	0.705	17435	3.06	0.713	2637	3.12	0.7
Learning technology	17692	3.22	0.675	18428	3.32	0.659	2668	3.29	0.657
Level of research activity	16741	3.1	0.629	17050	3.16	0.651	2520	3.14	0.641
Online library facilities	17648	3.27	0.657	18229	3.36	0.664	2512	3.26	0.639
Opportunities for work during studies	15749	2.83	0.807	16219	2.97	0.823	2556	3.05	0.767
Organisation of course	17955	3.08	0.665	19104	3.13	0.697	2732	3.2	0.632
Physical library facilities	17472	3.2	0.716	18308	3.37	0.688	2622	3.3	0.655
Quality of classrooms	17995	3.19	0.677	19040	3.25	0.7	2720	3.23	0.645
Quality of labs	13250	3.23	0.674	10558	3.34	0.662	2012	3.23	0.651
Quality of lectures	18067	3.07	0.627	19116	3.16	0.63	2757	3.19	0.613
Size of the classes	17947	3.14	0.634	18828	3.2	0.667	2725	3.17	0.656
Studying with people from other cultures	17714	3.19	0.655	18621	3.33	0.678	2713	3.24	0.691

Teaching ability of lecturers	18021	3.11	0.649	19093	3.19	0.658	2730	3.19	0.643
Virtual Learning	17569	3.24	0.648	18278	3.31	0.655	2670	3.26	0.65

In table 4.16, the comparative frequencies, means, and standard deviations of student satisfaction with all variables of their living experience at institutions in Australia, UK, and US. At Australian institutions, respondents were most satisfied with safety and security on campus (Mean=3.2), the quality of the external campus environment (Mean=3.2), and with the surroundings outside their institution (Mean=3.18). They were the least satisfied with financial support in their living setting (Mean=2.54), the opportunity to earn money while studying (Mean=2.57), and the cost of accommodation (Mean=2.6). At UK institutions, and similarly to students at Australian institutions, respondents were most satisfied with safety and security on campus (Mean=3.33), the quality of the external campus environment (Mean=3.29), and with the surroundings outside their institution (Mean=3.29). They were the least satisfied with financial support in their living setting (Mean=2.56), the cost of accommodation (Mean=2.64), and the opportunity to earn money while studying (Mean=2.69). At US institutions, respondents were most satisfied with the sports facilities on campus (Mean=3.27), the quality of external campus environment (Mean=3.25), and the quality of campus buildings (Mean=3.21). Similar to students in Australia and the UK, students studying in the US were the least satisfied with the cost of accommodation (Mean=2.6), financial support in their living setting (Mean=2.66), and the opportunity to earn money while studying (Mean=2.67).

A one-way ANOVA was also conducted to compare the levels of satisfaction of international students with their living experience at institutions across Australia, the UK, and the US. There was a statistically significant difference between the mean levels of satisfaction of

learning variables: safety and security [$F(2, 38070)=194.903, p<.001$], financial support [$F(2, 29912)=19.734, p<.001$], and sports facilities [$F(2, 32346)=431.885, p<.001$].

Table 4.16 Comparative satisfaction with living experience

(4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)

Living Variables	Australia			UK			US		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Cost of accommodation	12755	2.6	0.82	16518	2.64	0.811	2061	2.6	0.824
Cost of living	16702	2.64	0.759	17877	2.78	0.715	2530	2.75	0.759
Eco-friendliness attitude	16468	3.16	0.611	17282	3.18	0.665	2553	3.15	0.665
Experience local culture	16821	3.04	0.685	17829	3.17	0.683	2588	3.11	0.694
Financial support	14104	2.54	0.84	13587	2.56	0.896	2224	2.66	0.855
Immigration and visa advice	13836	2.94	0.702	10545	3.1	0.682	2508	3.11	0.678
Internet access	16362	2.92	0.817	16950	3.11	0.784	2468	3.07	0.753
Making friends from my home country	16211	3.09	0.707	16409	3.06	0.798	2521	3.14	0.724
Making friends from other countries	16856	3.06	0.683	18071	3.26	0.688	2575	3.08	0.713
Making friends from this country	16905	2.85	0.801	18054	3.08	0.797	2596	2.96	0.79
Networking	16119	2.87	0.716	17079	2.99	0.717	2531	3.03	0.696
Opportunity to earn money while studying	14803	2.57	0.829	13719	2.69	0.796	2265	2.67	0.854
Quality of accommodation	12776	3.09	0.659	16462	3.12	0.7	2062	3.05	0.696
Quality of campus buildings	17009	3.17	0.647	18247	3.21	0.676	2611	3.21	0.634
Quality of external campus environment	16935	3.2	0.621	18206	3.29	0.636	2592	3.25	0.6
Religious worship facilities	11458	3.09	0.634	8930	3.17	0.663	1992	3.07	0.671
Safety and security	17099	3.2	0.671	18358	3.33	0.651	2616	3.16	0.687
Social activities	15663	2.97	0.682	16569	3.08	0.683	2542	3.09	0.662
Social facilities	15507	2.98	0.672	16118	3.04	0.704	2548	3.12	0.658
Sports facilities	14749	2.92	0.737	15061	3.12	0.752	2539	3.27	0.66
Surroundings outside institution	17044	3.18	0.63	18278	3.29	0.64	2611	3.11	0.692
Transportation around campus	16310	3.08	0.73	16662	3.1	0.747	2550	3.09	0.729
Transportation to other places	16840	3.02	0.725	17542	3.11	0.702	2545	2.91	0.82

In table 4.17, the comparative frequencies, means, and standard deviations of student satisfaction with all variables of support services at institutions in Australia, UK, and US. At Australian institutions, respondents were most satisfied with the provision of chaplaincy or multi-faith services on campus (Mean=3.34), disability support services (Mean=3.29), and with their comfort and welfare in their residence halls (Mean=3.27). They were the least satisfied with campus eating options and places (Mean=3.05), services provided by the finance department (Mean=3.09), and services provided by the accommodation office (Mean=3.12). At UK institutions, respondents were most satisfied with the provision of chaplaincy or multi-faith services (Mean=3.38), the services provided by personal tutors (Mean=3.36), and clubs and societies available on campus (Mean=3.34). They were the least satisfied with campus eating options (Mean=3.08), counseling services (Mean=3.11), and services provided by the accommodation office (Mean=3.12). At US institutions, respondents were most satisfied with the student union services (Mean=3.34), information technology and systems support (Mean=3.3), and the services from personal tutors (Mean=3.28). They were the least satisfied with campus eating options (Mean=2.98), the finance department (Mean=3.09), and counseling services (Mean=3.11).

A one-way ANOVA was also conducted to compare the levels of satisfaction of international students with their support services experience at institutions across Australia, the UK, and the US. There was a statistically significant difference between the mean levels of satisfaction of learning variables: chaplaincy and multi-faith resources [$F(2, 36005)=41.692, p<.001$], campus eating options [$F(2, 36321)=49.493, p<.001$], and student union services [$F(2, 36890)=595.265, p<.001$].

Table 4.17 Comparative satisfaction with support services

(4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)

Support Services Var.	Australia			UK			US		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Accommodation Office	3275	3.12	0.686	6330	3.12	0.687	1307	3.11	0.685
Campus eating places	11208	3.05	0.693	12191	3.08	0.723	1758	2.98	0.775
Careers Advisory	2758	3.15	0.65	5299	3.26	0.691	915	3.24	0.625
Chaplaincy/multi-faith	1233	3.34	0.611	1505	3.38	0.632	218	3.21	0.623
Clubs/Societies	6785	3.2	0.565	10098	3.34	0.602	1188	3.22	0.55
Counselling	2536	3.21	0.646	2283	3.11	0.792	582	3.11	0.734
Disability Support	824	3.29	0.627	1067	3.28	0.72	247	3.18	0.621
Finance department	3278	3.09	0.622	5269	3.14	0.663	1158	3.09	0.668
Health Centre	4822	3.25	0.628	6652	3.13	0.764	1310	3.24	0.647
International Office	4872	3.2	0.605	4652	3.22	0.653	1752	3.25	0.65
IT and system support	6411	3.24	0.576	7528	3.31	0.638	1010	3.3	0.572
Personal Tutors	1320	3.25	0.615	9180	3.36	0.668	1768	3.28	0.644
Residence Hall welfare	1202	3.27	0.637	3715	3.32	0.656	910	3.28	0.59
Student Union	6074	3.25	0.559	9072	3.29	0.645	1697	3.34	0.561

4.4 Associations within Variables of Satisfaction

Research question 3: *Are there any apparent associations or correlations between international students' overall level of satisfaction with their institution and their experience with their arrival, learning, living, and support services environments?*

4.4.i Associations between Dimensions of Satisfaction and Overall Experience

The first analysis looked at how overall satisfaction with all aspects of the university is impacted by satisfaction with arrival, learning, living, and support services and results demonstrated that the overall model was statistically significant $R^2 = .201$, $F(4, 12732) = 801.955$, $p < .001$. Table 4.18 below shows that each of the four Independent Variables (IVs) were statistically significant ($p < .001$, $t > 1.96$): Arrival Experience ($p < .001$, $t > 1.96$); Learning Experience ($p < .001$, $t > 1.96$); Living Experience ($p < .001$, $t > 1.96$); and Support Services ($p < .001$, $t > 1.96$). This means that each of the IVs statistically impacted the Dependent Variable

(DV), which is students' overall satisfaction with all aspects of their University experiences. Of the four IVs, Learning Experience influenced Overall University Satisfaction the most ($\beta=.302$), followed by Arrival Experience ($\beta=.149$) and Living Experience ($\beta=.140$). Support Services ($\beta=.124$) had the least impact on students' rating of their overall satisfaction with all aspects of their university experience. The Collinearity Statistics show that the IVs were not highly correlated among themselves ($VIF < 1.5$) to be of a concern in including all four of them in one regression model.

Table 4.18 Regression analysis of overall satisfaction on university and other satisfaction variables

Variables of Satisfaction	β	t	$Sig.(p)$	Collinearity Statistics VIF
Arrival Experience	0.149	15.385	.000	1.201
Learning Experience	0.302	30.601	.000	1.233
Living Experience	0.14	14.686	.000	1.203
Support Services	0.124	11.031	.000	1.209

4.4.ii Correlation Matrix of Dimensions of Satisfaction and Overall Experience

A correlational analysis was performed to assess the relationship between the variables of satisfaction and overall institutional experience. As noted in Table 4.19, international students' overall satisfaction with their institution was positively correlated with all four dimensions of experiences. There was a substantial correlation with Learning satisfaction ($r=.506, p<.001$), and moderate correlation with Support Services satisfaction ($r=.3, p<.001$), Living experience ($r=.298, p<.001$), and Arrival satisfaction ($r=.283, p<.001$).

Table 4.19 Intercorrelations of variables of satisfaction

	Var. 1	Var. 2	Var. 3	Var. 4	Var. 5
1. Overall Experience	--				
2. Arrival Experience	0.283*	--			
3. Learning Experience	0.506*	0.312*	--		
4. Living Experience	0.298*	0.3*	0.273*	--	

5. Support Experience	0.3*	0.286*	0.301*	0.269*	--
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* $p < .001$

4.4.iii Comparative Analyses of Each Dimension of Satisfaction on Overall Experience

Table 4.20 shows comparative regression analyses of international students' overall satisfaction with their institution and other satisfaction variables at institutions in Australia, the UK, and the US. At Australian institutions, the overall model was statistically significant, $R^2 = .243$, $F(4, 5097) = 409.192$, $p < .001$, and all four IVs are statistically significant ($p > .001$, $t < 1.96$). Of the four IVs, international students' ratings on their Learning experience ($\beta = .345$) had the greatest impact on overall satisfaction, followed by Arrival experience ($\beta = .144$), Living experience ($\beta = .116$), and Support Services ($\beta = .12$). At institutions in the UK, the overall model was statistically significant, $R^2 = .176$, $F(4, 6072) = 359.559$, $p < .001$ and all four IVs were also statistically significant ($p > .001$, $t < 1.96$). International students' Learning experience ($\beta = .264$) had the greatest impact on overall satisfaction, followed by Living experience ($\beta = .151$), Arrival experience ($\beta = .147$), and Support Services ($\beta = .132$). At US institutions, the overall model was statistically significant, $R^2 = .180$, $F(4, 6072) = 49.413$, $p < .001$, and all IVs, except for Support Services ($p > .001$, $t < 1.96$), were statistically significant. This means that international students' rating of their experience using Support Services at US institutions did not impact their overall satisfaction with their institution. Learning experience had the most impact ($\beta = .318$), followed by Arrival experience ($\beta = .187$), and Living experience ($\beta = .151$).

Table 4.20 Comparative regression analysis of overall satisfaction with university and other satisfaction variables

Variables of Sat.	Australia			UK			US		
	β	t	Sig.(p)	β	t	Sig.(p)	β	t	Sig.(p)
Arrival	0.144	9.662	0.000	0.147	11.021	0.000	0.187	4.591	0.000
Learning	0.345	24.068	0.000	0.264	19.026	0.000	0.318	6.924	0.000
Living	0.116	8.031	0.000	0.151	11.552	0.000	0.151	3.553	0.000

Support Services	0.12	7.396	0.000	0.132	8.289	0.000	0.038	0.715	0.475
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4.4.iv Associations between Variables of Satisfaction and Dimensions of Experience

Specific to arrival experience of international students, Table 4.21 displays how satisfaction with various arrival aspects (IVs) impact overall satisfaction with the arrival experience (DV). The regression analysis showed that the overall model was significant, $R^2 = .331$, $F(17, 464) = 13.484$, $p < .001$ and that the First Night Stay and Welcome/Airport Pickup, both at ($p < .001$, $t > 1.96$), had the most significant impact on students' overall satisfaction with their arrival experience. Students' first night stay experience influenced their overall arrival satisfaction the most ($\beta = .231$), followed by their experience being welcomed and picked up from the airport ($\beta = .176$). It must also be noted that Meeting Academic Staff ($\beta = -.128$) when students first arrived to campus was negatively associated with their overall arrival experience.

Table 4.21 Regression analysis of overall satisfaction on arrival experience and other arrival variables

Arrival Variables	β	t
First night stay*	0.231	4.142
Welcome/Airport pickup*	0.176	4.146
Meeting academic staff**	-0.128	-2.005

* $p < .001$ ** $p < .05$ *** $p < .10$

Table 4.22 shows how satisfaction with various learning aspects impact overall satisfaction with the learning experience. From the regression analysis, the overall model was significant $R^2 = .279$, $F(23, 15422) = 259.409$, $p < .001$, and the following IVs had the most significant impact on students' overall satisfaction with their learning experience: Quality of lectures, Academic content, Expertise of lecturers, Organisation of course, Teaching ability of lecturers, and Learning that might Lead to a good job, all at ($p < .001$, $t > 1.96$). Of those variables, Quality of lectures influenced their overall learning satisfaction the most ($\beta = .159$), followed by Academic content ($\beta = .094$), Expertise of lecturers ($\beta = .075$), Organization of course

($\beta=.064$), Teaching ability of lecturers ($\beta=.046$), and Learning that might Lead to a good job ($\beta=.05$). Academic Staff Command of English ($\beta=-.018$) was negatively associated with students' overall learning experience.

Table 4.22 Regression analysis of overall satisfaction on learning experience and other learning variables

Learning Variables	β	t
Quality of lectures*	0.159	15.195
Academic content*	0.094	9.223
Expertise of lecturers*	0.075	6.924
Organisation of course*	0.064	6.616
Teaching ability of lecturers*	0.046	4.505
Leading to a good job*	0.05	5.146
Improve English language skills**	0.033	3.431
Explanation of marking**	0.031	3.152
Opportunities for work during studies**	0.024	2.858
Feedback on coursework**	0.022	2.199
Studying with people from other cultures**	0.019	2.138
Access to academic staff**	0.019	2.047
Academic staff English command**	-0.018	-2.102

* $p<.001$ ** $p<.05$ *** $p<.10$

Table 4.23 shows the impact of international students' satisfaction with various aspects of their living experience on their overall living satisfaction at their institutions. From the regression analysis, the overall model was significant $R^2 = .245$, $F(24, 6014) = 81.118$, $p < .001$, and the following IVs were the most significant on students' overall satisfaction with their living experience: Quality of accommodation and Access to suitable accommodation, both at ($p<.001$, $t>1.96$). Quality of accommodation influenced students' overall living satisfaction the most ($\beta=.183$), followed by Access to suitable accommodation ($\beta=.014$).

Table 4.23 Regression analysis of overall satisfaction on living experience and other living variables

Living Variables	β	t
Quality of accommodation*	0.183	12.176
Access to suitable accommodation*	0.14	9.14
Safety and security**	0.043	3.137
Surroundings outside institution**	0.041	2.55
Making friends from my home country**	0.025	2.142

* $p < .001$ ** $p < .05$ *** $p < .10$

In terms of satisfaction with support services, Table 4.24 below displays the impact of international students' satisfaction with various aspects of support services on their overall satisfaction with support services provided by their institutions. From the regression analysis, the overall model was significant $R^2 = .044$, $F(16, 4846) = 13.996$, $p < .001$, and the following IVs were the most significant on students' overall satisfaction with their experience using support services: International Office and Clubs and societies, both at ($p < .001$, $t > 1.96$). Satisfaction with the International Office influenced students' overall satisfaction with support services the most ($\beta = .047$), followed by Clubs and societies ($\beta = .041$).

Table 4.24 Regression analysis of overall satisfaction on support services and other support services variables

Support Services Variables	β	t
International Office*	0.047	4.991
Clubs/Societies*	0.041	4.227
Campus eating places**	0.028	2.754
Student Advisory Service**	0.026	2.52
Personal Tutors**	0.023	2.351

* $p < .001$ ** $p < .05$ *** $p < .10$

4.4.v Comparative Analyses of Variables of Satisfaction within Each Dimension of Experience

Table 4.25 shows comparative regression analyses of international students' overall satisfaction with their arrival experience and other arrival variables at institutions in Australia, the UK, and the US. At Australian institutions, the overall model was significant $R^2 = .280$, $F(17,$

49) = 1.811, $p < .05$, yet no arrival variables were found to significantly impact overall arrival experience ($p > .001$, $t < 1.96$). At institutions in the UK, the overall model was significant $R^2 = .379$ $F(17, 238) = 8.554$, $p < .001$, and students' first night stay ($p < .001$, $t > 1.96$) was the only variable that had a significant impact on overall arrival experience. At US institutions, the overall model was significant $R^2 = .490$ $F(17, 111) = 6.276$, $p < .001$, and students' satisfaction with airport pickup and welcome ($p < .001$, $t > 1.96$) was the only variable that significantly influenced their overall arrival experience.

Table 4.25 Comparative regression analysis of overall satisfaction on arrival experience and other arrival variables

Arrival Variables	β	t
Australian Institutions		
—		—
UK Institutions		
First night stay*	0.256	3.615
US Institutions		
Welcome/Airport pickup*	0.474	4.403

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

Table 4.26 shows comparative regression analyses of international students' overall satisfaction with their learning experience and other learning variables at institutions in Australia, the UK, and the US. At Australian institutions, the overall model was significant $R^2 = .293$ $F(23, 8466) = 152.421$, $p < .001$, and the following IVs were the most positively significant on students' overall learning satisfaction: Quality of lectures, Academic content, Organization of the course, Learning that might lead to a good job, Expertise of lecturers, and Teaching ability of lecturers, all at ($p < .001$, $t > 1.96$). The quality of lectures ($\beta = .178$) had the most impact on overall satisfaction with students' learning experience at their institution. Receiving feedback on coursework had the least impact ($\beta = .035$). At UK institutions, the overall

model was significant $R^2 = .262$ $F(23, 5367) = 82.708$, $p < .001$, and the following IVs were most significant: Quality of lectures, Academic content, Expertise of lecturers, and Learning that might lead to a good job, all at ($p < .001$, $t > 1.96$). The quality of lectures ($\beta = .145$) had the most impact on overall satisfaction with students' learning experience at their institution. The teaching ability of lecturers had the least impact ($\beta = .040$). At US institutions, the overall model was significant $R^2 = .283$ $F(23, 1541) = 16.485$, $p < .001$, and Expertise of lecturers ($p < .001$, $t > 1.96$) was the most significant and had most impact on overall learning experience ($\beta = .178$).

Table 4.26 Comparative regression analysis of overall satisfaction on learning experience and other learning variables

Learning Variables	β	t
Australian Institutions:		
Quality of lectures*	0.178	13.21
Academic content*	0.072	5.375
Organisation of course*	0.086	6.745
Leading to a good job*	0.05	4.037
Expertise of lecturers*	0.05	3.51
Teaching ability of lecturers*	0.047	3.49
Explanation of marking**	0.043	3.425
Opportunities for work during studies**	0.036	3.325
Improve English language skills**	0.035	2.879
Feedback on coursework**	0.035	2.716
UK Institutions:		
Quality of lectures*	0.145	7.829
Academic content*	0.136	7.914
Expertise of lecturers*	0.08	4.379
Leading to a good job*	0.055	3.109
Studying with people from other cultures**	0.048	3.006
Organisation of course**	0.042	2.63
Teaching ability of lecturers**	0.04	2.33
US Institutions:		
Expertise of lecturers*	0.178	4.634
Quality of lectures**	0.095	2.538
Physical library facilities**	0.094	2.692

Teaching ability of lecturers**	0.079	2.263
Explanation of marking**	0.084	2.049

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

Table 4.27 shows comparative regression analyses of international students' overall satisfaction with their living experience and other living variables at institutions in Australia, the UK, and the US. At Australian institutions, the overall model was significant $R^2 = .245$ $F(24, 6014) = 81.118$, $p < .001$, and the following IVs were only significant on students' overall living satisfaction: Quality of accommodation and Safety and security, both at ($p < .001$, $t > 1.96$).

Quality of accommodation ($\beta = .183$) had the most impact on overall satisfaction with students' living experience at their institution. At UK institutions, the overall model was significant $R^2 = .266$ $F(23, 4244) = 66.864$, $p < .001$, and Quality of accommodation, Making friends from other countries, and Internet access were significant, all at ($p < .001$, $t > 1.96$). Of those variables, Quality of accommodation ($\beta = .247$) had the most impact and Internet access ($\beta = .037$) had the least. At US institutions, the overall model was significant $R^2 = .229$ $F(23, 1162) = 14.988$, $p < .001$, and Quality of accommodation was the only variable that was significant in impacting overall living experience ($p < .001$, $t > 1.96$).

Table 4.27 Comparative regression analysis of overall satisfaction on living experience and other living variables

Living Variables	β	t
Australian Institutions		
Quality of accommodation*	0.183	12.176
Safety and security*	0.043	3.137
UK Institutions		
Quality of accommodation*	0.247	15.789
Making friends from other countries*	0.074	4.086
Internet access**	0.037	2.783
US Institutions		
Quality of accommodation*	0.295	10.067

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

Table 4.28 shows comparative regression analyses of international students' overall satisfaction with support services and other support services variables at institutions in Australia, the UK, and the US. At Australian institutions, the overall model was significant $R^2 = .043$ $F(15, 4866) = 14.568$, $p < .001$, and the following IVs were most significant on students' overall living satisfaction: International Office and Campus eating places, both at ($p < .001$, $t > 1.96$). Satisfaction with the International Office ($\beta = .053$) had the most impact on overall satisfaction with students' support services. At UK institutions, the overall model was significant $R^2 = .021$ $F(15, 11202) = 16.290$, $p < .001$, and satisfaction with Campus eating places, Career Advisory, and the Finance Department were most significant, all at ($p < .001$, $t > 1.96$). Campus eating places ($\beta = .029$) had the most impact on overall satisfaction with support services. Satisfaction with Clubs/Societies ($\beta = .016$) and Personal tutors ($\beta = .018$) were the least influential. At US institutions, the overall model was significant $R^2 = .028$ $F(14, 1582) = 3.245$, $p < .001$, and satisfaction with the International Office was the only significant IV ($p < .001$, $t > 1.96$).

Table 4.28 Comparative regression analysis of overall satisfaction on support services and other support services variables

Support Services Variables	β	t
Australian Institutions		
International Office*	0.053	5.734
Clubs/Societies*	0.041	4.145
Campus eating places**	0.029	2.783
Personal Tutors**	0.025	2.512
UK Institutions		
Campus eating places*	0.029	4.259
Careers Advisory*	0.026	3.611
Finance department*	0.018	3.5
Personal Tutors**	0.018	3.091
Clubs/Societies**	0.016	2.157

US Institutions

International Office**	0.072	3.245
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* $p < .001$ ** $p < .05$

4.4.vi Associations between Variables of Satisfaction and Overall Experience

Multivariate regression analyses were applied to examine the predictive value of the various aspects of student satisfaction in each dimension of experience on their overall institutional experience. While the previous section looked at the impact of various variables within a dimension on the overall satisfaction of that dimension, the following analyses focus on their influence on students' overall institutional experience instead. In other words, which aspects of satisfaction in each of the arrival, learning, living, and support services dimensions impact overall institutional experience.

Table 4.29 shows how satisfaction with various aspects of satisfaction within each dimension of experience impact international students' overall institutional experience. Specific to arrival experience of international students, the regression analysis shows that the overall model was significant $R^2 = .120$ $F(17, 472) = 3.771$, $p < .001$, and only two of the IVs, experience with the Finance Department ($p < .05$, $t > 1.96$) and Accommodation Office ($p < .10$, $t > 1.96$), had a significant impact on students' overall satisfaction with institution upon arrival.

The learning aspects of satisfaction that had the most significant impact on students' overall institutional satisfaction and the overall model was significant $R^2 = .166$ $F(23, 15439) = 133.339$, $p < .001$, (see Table 4.29) and were: Quality of lectures, Expertise of lecturers, Organisation of course, Studying with people from other cultures, Academic content, Leading to a good job, all at ($p < .001$, $t > 1.96$). Of those variables, Quality of lectures ($\beta = .085$) influenced their overall institutional satisfaction the most.

The living aspects of satisfaction that had a significant impact on students' overall institutional satisfaction and the overall model was significant $R^2 = .134$ $F(24, 6025) = 38.993$, $p < .001$, (see Table 4.29) and were: Access to suitable accommodation at ($p < .001$, $t > 1.96$); and Quality of external campus environment, Experience local culture, Cost of living, Social facilities, Cost of accommodation, Eco-friendliness attitude, Social activities, Making friends from this country, all at ($p < .05$, $t > 1.96$). Of those variables, Access to suitable accommodation ($\beta = .074$) influenced their overall institutional satisfaction the most. Making friends from this country had the least influence ($\beta = .029$). Cost of accommodation ($\beta = -.036$) had a negative association with overall institutional experience, meaning that as cost went up, overall satisfaction went down, and vice-versa.

A multiple regression analysis was also performed to assess the impact of the various aspects of support services on overall satisfaction with the institution. None of the support services variables were found to influence international students' overall institutional satisfaction.

Table 4.29 Regression analysis of satisfaction variables on overall institutional experience

Satisfaction Variables	β	t
Arrival Variables		
Finance department*	1.137	2.173
Accommodation Office**	0.1	1.702
Learning Variables		
Quality of lectures*	0.085	6.934
Expertise of lecturers*	0.074	5.847
Organisation of course*	0.055	4.878
Studying with people from other cultures*	0.053	4.978
Academic content*	0.05	4.191
Leading to a good job*	0.046	4.001
Improve English language skills**	0.026	2.35
Access to academic staff**	0.026	2.307

Physical library facilities**	0.023	2.069
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Living Variables

Access to suitable accommodation*	0.074	4.225
Quality of external campus environment**	0.066	3.352
Experience local culture**	0.05	3.051
Cost of living**	0.04	2.734
Social facilities**	0.051	2.669
Eco-friendliness attitude**	0.039	2.121
Social activities**	0.038	2.071
Cost of accommodation**	-0.036	-2.603
Making friends from this country**	0.029	2.015

Support Services Variables

None

*p<.001 **p<.05 ***p<.10

4.4.vii Comparative Analyses of Variables of Satisfaction on Overall Institutional Experience

This section provides a comparative analysis of the impact of satisfaction variables on overall institutional experience at institutions in Australia, UK, and US. It shows which satisfaction variables directly influence international students' overall experience with their institution.

In the Arrival dimension (Table 4.30), experience with the Finance Department ($p < .05$, $t > 1.96$) was the only variable in the UK the overall model was significant $R^2 = .126$ $F(17, 243) = 2.067$, $p < .01$, found to be significant on overall institutional experience. In the US, the overall model was significant $R^2 = .280$ $F(17, 79) = 1.811$, $p < .05$, Orientation Program ($p < .05$, $t > 1.96$) was the only variable that was influential on overall institutional experience. For Australia the overall model was significant $R^2 = .236$ $F(17, 112) = 2.035$, $p < .05$, (see Table 4.29) and none of the arrival variables were significant in Australia.

Table 4.30 Comparative regression analysis of arrival variables on overall institutional experience

Arrival Variables	β	t
Australian Institutions		
None		—
UK Institutions		
Finance department**	0.207	2.317
US Institutions		
Institution orientation**	0.339	2.223

* $p < .001$ ** $p < .05$ *** $p < .10$

In the Learning dimension (Table 4.31), there were several satisfaction variables that were significant on international students' overall institutional experience in Australia, the overall model was significant $R^2 = .209$ $F(23, 8475) = 97.521$, $p < .001$, with the Quality of Lectures ($\beta = .121$) and Organization of Course ($\beta = .073$) being the most impactful. For the UK, the overall model was significant $R^2 = .125$ $F(23, 5371) = 33.396$, $p < .001$, and Expertise of Lecturers was found to be the most significant on overall institutional experience ($\beta = .085$). For the US, the overall model was significant $R^2 = .138$ $F(23, 1545) = 10.754$, $p < .05$, and Expertise of Lecturers was also found to be most significant on overall institutional experience ($\beta = .146$).

Table 4.31 Comparative regression analysis of learning variables on overall institutional experience

Learning Variables	β	t
Australian Institutions		
Quality of lectures*	0.121	8.026
Organisation of course*	0.073	5.132
Academic content**	0.051	3.376
Expertise of lecturers**	0.05	3.133
Studying across cultures**	0.038	2.858
Physical library facilities**	0.035	2.583
Leading to a good job**	0.036	2.559
Improve English skills**	0.033	2.429
Quality of labs**	0.034	2.356

Access to academic staff**	0.029	2.103
Feedback on coursework**	0.029	2.045
Opportunities work/studies**	0.024	1.988

UK Institutions

Expertise of lecturers*	0.085	3.78
Leading to a good job**	0.074	3.437
Academic content**	0.066	3.145
Studying across other cultures**	0.06	3.057
Quality of lectures**	0.057	2.509

US Institutions

Expertise of lecturers**	0.146	3.019
Studying across cultures**	0.113	2.803

*p<.001 **p<.05 ***p<.10

For Australia, the overall model was significant $R^2 = .134$ $F(24, 6025) = 38.993$, $p < .001$, while for the UK, the overall model was significant $R^2 = .106$ $F(23, 4249) = 21.977$, $p < .001$, and in the US, the overall model was significant $R^2 = .109$ $F(23, 1164) = 6.191$, $p < .001$. The most influential satisfaction variables for the Living dimension (Table 4.32) were: Suitable accommodation ($\beta = .074$) in Australia; Quality of Accommodation ($\beta = .077$) in the UK; and Quality of Accommodation ($\beta = .093$) in the US.

Table 4.32 Comparative regression analysis of living variables on overall institutional experience

Living Variables	β	t
Australian Institutions		
Suitable accommodation*	0.074	4.225
Quality of external campus **	0.066	3.352
Experience local culture**	0.05	3.051
Cost of living**	0.04	2.734
Social facilities**	0.051	2.669
Eco-friendliness attitude**	0.039	2.121
Social activities**	0.038	2.071
Making friends this country**	0.029	2.015
Safety and security**	0.031	1.997

UK Institutions		
Quality of accommodation*	0.077	4.125
Quality of campus buildings**	0.069	2.974
Making friends countries**	0.052	2.372
Making friends this country**	0.043	2.27
Surroundings outside**	0.055	2.174
US Institutions		
Quality of accommodation**	0.093	2.542
Networking**	0.117	2.482
Social activities**	0.119	2.35

*p<.001 **p<.05 ***p<.10

No variables in the Support Services dimension were found to be significant on students' overall institutional experience across Australia, UK, and US institutions.

4.5 Associations between Variables of Satisfaction and Student Demographics

Research question 4: *How do the demographic variables of respondents (age, gender, nationality, field of study, study stage, and source of funding) impact their level of satisfaction with their institution?*

To answer this research question, a combination of descriptive and inferential analyses was used. A two-way logistical analysis was performed to understand how the overall satisfaction scores of international students were distributed by demographics groups. A multivariate regression analysis, with demographic variables as covariates, was performed to look at the impact of demographic variable in associations between each dimension of experience (arrival, learning, living, and support services) and overall satisfaction.

4.5.i Age Demographics

Table 4.33 is a logistical two-way table that shows how students' overall satisfaction scores are distributed by the age groups of respondents. International students were satisfied with

their institutional experience across all age groups. 53% of students who were 51 and older reported that they were very satisfied with their experience, the highest satisfaction of all age groups. 91.6% of respondents who were 21-25 years old indicated that they were satisfied or very satisfied with their institution. 92.8% of those who were 20 years old or younger were satisfied or very satisfied with their overall experience.

Table 4.33 Two-way table: Overall satisfaction scores by age

Age	Overall Satisfaction Scores (4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)								Total
	1		2		3		4		
	n	%	n	%	n	%	n	%	
20 and younger	451	2.8%	699	4.4%	9785	61.2%	5052	31.6%	15987
21-25	556	2.8%	1144	5.8%	12886	65.7%	5029	25.6%	19615
26-30	99	3.9%	242	9.7%	1607	64.1%	559	22.3%	2507
31-35	35	4.6%	57	7.4%	481	62.8%	193	25.2%	766
36-40	18	4.9%	34	9.2%	216	58.7%	100	27.2%	368
41-45	10	6.2%	20	12.4%	84	52.2%	47	29.2%	161
46-50	5	5.9%	8	9.4%	36	42.4%	36	42.4%	85
51 and older	4	6.1%	5	7.6%	22	33.3%	35	53.0%	66
Total	1178	3.0%	2209	5.6%	25117	63.5%	11051	27.9%	39555

Table 4.34 compares outputs of a multivariate regression analyses looking at associations between each dimension of experience and overall satisfaction, with the demographic variables of age (21-25 years and all other ages) as covariates. The overall model for those aged 21-25 was significant, $R^2 = .234$ $F(4, 3515) = 270.014$, $p < .001$, and similarly the overall model for all other age groups was also significant, $R^2 = .188$ $F(4, 9212) = 534.807$, $p < .001$. There were no major differences in the regression models between the two groups. The dimensions of satisfaction were all significant on overall satisfaction for students in both groups. Satisfaction with Learning was the most impactful on overall satisfaction for both groups. Satisfaction with Support Services ($\beta = .142$) was more influential than Living satisfaction ($\beta = .133$) for those aged 21-25

years. Satisfaction with Living ($\beta=.142$) was more impactful on Overall Satisfaction than Support Services ($\beta=.116$) for respondents in all other age groups.

Table 4.34 Regression analysis of dimensions of satisfaction on overall institutional experience by age

	21-25 years old			Other ages		
	β	<i>t</i>	<i>Sig.(p)</i>	β	<i>t</i>	<i>Sig.(p)</i>
Arrival	0.156	9.004	0	0.147	12.555	0
Learning	0.321	17.82	0	0.293	24.911	0
Living	0.133	7.656	0	0.142	12.503	0
Support	0.142	7.14	0	0.116	8.556	0

4.5.ii Gender Demographics

Table 4.35 is a logistical two-way table that shows how students’ overall satisfaction scores are distributed by gender. International students were satisfied with their institutional experience across all gender groups. 92% of female students and 90.6% of male students indicated that they were satisfied or very satisfied with their institution.

Table 4.35 Two-way table: Overall satisfaction scores by gender

Gender	Overall Satisfaction Scores (4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)								Total
	1		2		3		4		
	n	%	n	%	n	%	n	%	
Female	629	2.8%	1184	5.2%	14545	64.1%	6333	27.9%	22691
Male	559	3.4%	972	6.0%	10121	62.0%	4673	28.6%	16325
Indeterminate/Intersex/ Unspecified	1	4.2%	4	16.7%	16	66.7%	3	12.5%	24
Prefer not to say	1	14.3%	2	28.6%	4	57.1%	0	0.0%	7
Non-binary/gender fluid/genderqueer	0	0.0%	0	0.0%	2	66.7%	1	33.3%	3
Transgender FTM	0	0.0%	0	0.0%	0	0.0%	1	100.0%	1
Total	1190	3.0%	2162	5.5%	24688	63.2%	11011	28.2%	39051

Comparative outputs of multivariate regression analyses in Table 4.36 looked at associations between each dimension of experience and overall satisfaction, with the demographic variables of gender (female and male) as covariates. The overall model for both

males and females were significant, $R^2 = .202$ $F(4, 7144) = 453.216$, $p < .001$ and $R^2 = .200$ $F(4, 5069) = 315.833$, $p < .001$, respectively. There were no major differences in the regression models between the two groups. The dimensions of satisfaction were all significant on overall satisfaction for students in both groups. Satisfaction with Learning was the most impactful on overall satisfaction for both groups. Satisfaction with Support Services was the least influential. Living satisfaction was more influential than Arrival satisfaction for male students than for female students.

Table 4.36 Regression analysis of dimensions of satisfaction on overall institutional experience by gender

	Female			Male		
	β	t	Sig.(p)	β	t	Sig.(p)
Arrival	0.158	12.278	0	0.137	8.844	0
Learning	0.309	23.247	0	0.297	19.296	0
Living	0.141	11.553	0	0.138	8.722	0
Support	0.116	7.84	0	0.128	7.06	0

4.5.iii Nationality Demographics

Table 4.37 is a logistical two-way table that shows how students' overall satisfaction scores are distributed by the top ten nationalities of international student respondents. International students were satisfied with their institutional experience across all ten nationalities. 89.8% of students from China, which was the top sending country of international students in this study, indicated that they were satisfied or very satisfied with their overall institutional experience.

Table 4.37 Two-way table: Overall satisfaction scores by top ten nationality

Top 10 Nationality	Overall Satisfaction Scores (4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)								Total
	1		2		3		4		
	n	%	n	%	n	%	n	%	
China	355	4.2%	506	6.0%	6029	71.5%	1544	18.3%	8434
Malaysia	72	1.9%	208	5.4%	2744	71.8%	798	20.9%	3822
USA	26	1.4%	129	6.9%	1036	55.7%	669	36.0%	1860

Hong Kong	34	1.9%	128	7.2%	1363	76.8%	250	14.1%	1775
Singapore	16	0.9%	85	4.8%	1325	75.1%	338	19.2%	1764
India	33	1.9%	97	5.6%	1031	59.3%	578	33.2%	1739
Germany	13	1.1%	56	5.0%	634	56.1%	428	37.8%	1131
France	40	4.0%	30	3.0%	482	48.4%	443	44.5%	995
South Korea	26	2.7%	113	11.8%	664	69.2%	156	16.3%	959
Vietnam	31	3.3%	72	7.6%	687	72.7%	155	16.4%	945

Comparative outputs of multivariate regression analyses in Table 4.38 looked at associations between each dimension of experience and overall satisfaction, with nationality as the demographic variable. In this analysis, the study compared respondents from China as one covariate to all other respondents grouped as the second covariate. The overall model for respondents from China was significant, $R^2 = .138$ $F(4, 2338) = 94.835$, $p < .001$, similarly the overall model for all other respondents was significant, $R^2 = .213$ $F(4, 10389) = 701.332$, $p < .001$. The dimensions of satisfaction were all significant on overall satisfaction across both groups. There was no difference in the regression models between the two groups, where satisfaction with Learning was the most impactful on overall satisfaction, followed by Arrival, Living, and Support Services.

Table 4.38 Regression analysis of dimensions of satisfaction on overall institutional experience by nationality

	China			Other nationalities		
	β	t	$Sig.(p)$	β	t	$Sig.(p)$
Arrival	0.161	6.041	0	0.146	14.119	0
Learning	0.26	9.6	0	0.305	28.968	0
Living	0.114	4.242	0	0.142	14.006	0
Support	0.112	3.618	0	0.128	10.637	0

4.5.iv Year of Study Demographics

Table 4.39 shows how students' overall satisfaction scores are distributed by international students' year of study. Respondents were satisfied with their institutional experience across different stages of their studies. 91.4% of students who were in their first year of study indicated that they were satisfied or very satisfied with their overall institutional experience. 90.3% of

those in their last year, and 91% of those who were in an in-between year, were also satisfied or very satisfied.

Table 4.39 Two-way table: Overall satisfaction scores by year of study

Year of Study	Overall Satisfaction Scores (4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)								Total
	1		2		3		4		
	n	%	n	%	n	%	n	%	
First year	628	3.8%	790	4.8%	10043	60.9%	5029	30.5%	16490
Last year	319	2.8%	783	6.9%	7444	65.8%	2775	24.5%	11321
Other year	465	2.7%	1074	6.2%	11303	65.6%	4382	25.4%	17224
Short course	36	5.4%	39	5.9%	378	56.8%	213	32.0%	666
Total	1448	3.2%	2686	5.9%	29168	63.8%	12399	27.1%	45701

Comparative outputs of multivariate regression analyses in Table 4.40 looked at associations between each dimension of experience and overall satisfaction, with year of study as the demographic variable. The overall model for both the first year of study, as well as every other year of study were statistically significant, $R^2 = .202$ $F(4, 12226) = 774.728$, $p < .001$ and $R^2 = .190$ $F(4, 501) = 29.459$, $p < .001$, respectively. In this analysis, the study compared respondents in their first year as one covariate to all other respondents in other years grouped as the second covariate. The dimensions of satisfaction were all significant on overall satisfaction for students in their first year, with the Learning ($\beta = .298$) as the most influential, followed by Arrival ($\beta = .154$), Living ($\beta = .137$), and Support Services ($\beta = .127$). However, Only Learning ($p < .001$, $t > 1.96$), Living ($p < .001$, $t > 1.96$), and Arrival ($p < .05$, $t > 1.9$) were significant for students enrolled in other years. Support Services ($p > .10$, $t < 1.96$) was not found to be significant on overall satisfaction for students enrolled in other years other than their first year. Learning ($\beta = .368$) was the most impactful on overall satisfaction for students enrolled in a different year than the first year, followed by Living ($\beta = .188$) and Arrival ($\beta = .086$).

Table 4.40 Regression analysis of dimensions of satisfaction on overall institutional experience by year of study

	First year			Other years		
	β	t	$Sig.(p)$	β	t	$Sig.(p)$
Arrival	0.154	15.451	0	0.086	1.832	0.068
Learning	0.298	29.724	0	0.368	7.053	0
Living	0.137	14.176	0	0.188	3.752	0
Support	0.127	11.153	0	0.038	0.581	0.561

4.5.v Field of Study Demographics

Table 4.41 showed how students' overall satisfaction scores are distributed by international students' fields of study. Respondents were satisfied with their institutional experience across different fields of study. 90.5% of students who were studying Business and Administrative Studies indicated that they were satisfied or very satisfied with their overall institutional experience. 90.4% of those in Engineering were also satisfied or very satisfied.

Table 4.41 Two-way table: Overall satisfaction scores by top ten fields of study

Top 10 Fields of Study	Overall Satisfaction Scores (4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)								Total
	1		2		3		4		
	n	%	n	%	n	%	n	%	
Business & Admin. Studies	370	3.6%	604	5.9%	6877	67.0%	2417	23.5%	10268
Engineering	201	3.5%	354	6.1%	3654	63.4%	1555	27.0%	5764
Biological Sciences	98	2.6%	184	4.8%	2345	61.5%	1187	31.1%	3814
Programs allied to Medicine	104	2.8%	260	7.0%	2485	67.0%	861	23.2%	3710
Social Studies	80	2.6%	168	5.5%	1844	60.3%	965	31.6%	3057
Other	110	3.8%	174	6.0%	1849	63.5%	780	26.8%	2913
Math & Computer Sciences	63	2.9%	108	5.1%	1278	59.8%	688	32.2%	2137
Law	59	3.6%	85	5.1%	1023	61.9%	487	29.4%	1654
Creative Arts & Design	49	3.0%	122	7.6%	1020	63.3%	421	26.1%	1612
Medicine & Dentistry	34	2.2%	109	7.2%	1004	65.9%	377	24.7%	1524

Comparative outputs of multivariate regression analyses in Table 4.42 looked at associations between each dimension of experience and overall satisfaction, with field of study as the demographic variable. The overall model for Business and Administrative Studies, as well

as all other respondents was significant, $R^2 = .186$ $F(4, 2567) = 147.120$, $p < .001$ and $R^2 = .204$ $F(4, 10160) = 650.347$, $p < .001$, respectively. In this analysis, the study compared respondents from Business and Administrative Studies as one covariate to all other respondents grouped as the second covariate. The dimensions of satisfaction were all significant on overall satisfaction across both groups. There was no difference in the regression models between the two groups, where satisfaction with Learning was the most impactful on overall satisfaction, followed by Arrival, Living, and Support Services.

Table 4.42 Regression analysis of dimensions of satisfaction on overall institutional experience by field of study

	Business & Admin.			Other majors		
	β	t	Sig.(p)	β	t	Sig.(p)
Arrival	0.136	6.476	0	0.152	13.904	0
Learning	0.324	14.173	0	0.296	27.062	0
Living	0.128	6.217	0	0.142	13.284	0
Support	0.092	3.552	0	0.131	10.479	0

4.5.vi Source of Funding Demographics

Table 4.43 showed how students' overall satisfaction scores are distributed by international students' source of funding. Respondents were satisfied with their institutional experience across different sources of funding. 91.8% of students who were funded by family funds indicated that they were satisfied or very satisfied with their overall institutional experience. 92% of those who received government funding were also satisfied or very satisfied.

Table 4.43 Two-way table: Overall satisfaction scores by source of funding

Source of Funding	Overall Satisfaction Scores (4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)								Total	
	1		2		3		4			
	n	%	n	%	n	%	n	%		
Family funds	622	2.6%	1311	5.6%	1556	4	66.2%	6028	25.6%	23525
Govt. funds	130	2.8%	243	5.2%	2620	56.4%	1652	35.6%	4645	
Loan	112	3.6%	131	4.2%	1784	57.8%	1062	34.4%	3089	

Own funds	112	4.6%	175	7.2%	1461	60.3%	674	27.8%	2422
Other financial	24	2.7%	51	5.7%	528	58.5%	299	33.1%	902
Employer funds	16	5.3%	28	9.3%	181	60.1%	76	25.2%	301

Comparative outputs of multivariate regression analyses in Table 4.44 looked at associations between each dimension of experience and overall satisfaction, with source of funding as the demographic variable. The overall model for family funds as well as that for different funding sources were both significant, $R^2 = .212$ $F(4, 7824) = 526.111$, $p < .001$ and $R^2 = .187$ $F(4, 4903) = 281.923$, $p < .001$, respectively. In this analysis, the study compared respondents who were receiving family funds as one covariate to all other respondents with different funding sources grouped as the second covariate. There were no major differences in the regression models between the two groups. The dimensions of satisfaction were all significant on overall satisfaction for students in both groups. Satisfaction with Learning and Arrival were the most impactful on overall satisfaction for both groups. Satisfaction with Living ($\beta = .141$) was more influential than Support Services ($\beta = .109$) for those with family funds. Satisfaction with Support Services ($\beta = .144$) was more impactful on Overall Satisfaction than Living satisfaction ($\beta = .138$) for respondents with all other sources of funding.

Table 4.44 Regression analysis of dimensions of satisfaction on overall institutional experience by source of funding

	Family funds			Other funding		
	β	t	Sig.(p)	β	t	Sig.(p)
Arrival	0.148	11.95	0	0.149	9.494	0
Learning	0.312	24.966	0	0.288	17.963	0
Living	0.141	11.881	0	0.138	8.783	0
Support	0.109	7.743	0	0.144	7.766	0

4.6 Associations between Satisfaction and Institutional Recommendation

Research question 5: *How likely are international students to recommend their current institution to prospective applicants based on their satisfaction and experience with that institution?*

Before looking at associations and correlations with institutional recommendation, Table 4.45 displays the extent to which international students recommend their current institution, based on their experience, to prospective applicants. The table also provides comparative frequencies, means, and standard deviations of students' institutional recommendation in Australia, UK, and US. The demographic analysis of data showed that respondents at all institutions combined recommended and encouraged other students and applicants to their current institution (Mean=4.16). International students in the UK were more likely to recommend their institution (Mean=4.25) compared to those in the US (Mean=4.12) and Australia (Mean=4.07).

Table 4.45 Comparative means scores of institutional recommendation

(5=Actively Encourage, 4=Encourage, 3=Neither, 2= Discourage, 1= Actively Discourage)

	N	Mean	SD
All institutions combined	37395	4.16	0.815
Australian institutions	16695	4.07	0.827
UK institutions	18117	4.25	0.786
US institutions	2583	4.12	0.868

Table 4.46, a logistical two-way table, shows how the distribution of students' overall satisfaction scores contribute towards their recommendation level of their current institution. International students who were very satisfied with their institutional experience would most likely actively encourage (66.3%) or encourage (30.9%) future international students to apply to their institution. Simultaneously, those who were very dissatisfied with their overall experience

would most likely not recommend their institution to others (0.8%). A comparative contingency analysis of scores for institutions in Australia, UK, and US demonstrated a similar trend.

Table 4.46 Two-way table: Overall satisfaction scores by institutional recommendation scores

Overall Satisfaction Scores	Institutional Recommendation Scores									
	<i>(5=Actively Encourage, 4=Encourage, 3=Neither, 2= Discourage, 1= Actively Discourage)</i>									
	1		2		3		4		5	
	n	%	n	%	n	%	n	%	n	%
1	111	10.0%	82	7.4%	87	7.8%	260	23.4%	571	51.4%
2	127	6.1%	418	20.0%	928	44.5%	504	24.2%	108	5.2%
3	64	0.3%	411	1.7%	3780	16.0%	13213	55.8%	6228	26.3%
4	38	0.4%	46	0.4%	210	2.0%	3250	30.9%	6959	66.3%

Table 4.47 looks at how international students' recommendation of their institution is impacted by their satisfaction with various aspects of their university experience. The regression analysis shows the overall model was significant $R^2 = .192$ $F(5, 12618) = 597.770$, $p < .001$ and that each of the five IVs are statistically significant: Overall Satisfaction with University experience, Satisfaction with Arrival Experience, Satisfaction with Learning Experience, Satisfaction with Living Experience, and Satisfaction with Support Services, all at ($p < .001$, $t > 1.96$). This means that each of the IVs statistically impact the DV, which is students' recommendation of their institution to others. Of the five IVs, Satisfaction with Learning Experience influences students' recommendation the most ($\beta = .233$), followed by Overall Satisfaction with University Experience ($\beta = .197$), Satisfaction with Support Services ($\beta = .126$), and Satisfaction with Arrival Experience ($\beta = .124$). Satisfaction with Living Experience ($\beta = .109$) had the least impact on students' recommendation of their institution to others.

Table 4.47 Regression analysis of institution recommendation on variables of satisfaction

Variables of Satisfaction	β	t	Sig.(p)
Overall Satisfaction	0.197	19.733	0.000
Satisfaction with Arrival	0.124	11.261	0.000
Satisfaction with Learning	0.233	20.281	0.000
Satisfaction with Living	0.109	10.039	0.000
Satisfaction with Support Services	0.126	9.941	0.000

4.6.i Correlation Matrix of International Students' Experience and Recommendation

Correlational analyses were performed to assess the relationship between the variables of satisfaction and institutional recommendation. As noted in Table 4.48, international students' overall satisfaction with their institution was moderately positively correlated with institutional recommendation ($r=.383, p<.001$). International students' satisfaction with their four dimensions of experiences were also correlated with institutional recommendation, with a substantial positive correlation observed with Learning ($r=.359, p<.001$), Support Services ($r=.284, p<.001$), Arrival ($r=.259, p<.001$), and Living ($r=.251, p<.001$).

Table 4.48 Intercorrelations of variables of satisfaction and recommendation

	Var. 1	Var. 2	Var. 3	Var. 4	Var. 5	Var. 6
1. Recommendation	--					
2. Overall Experience	0.383*	--				
3. Arrival Experience	0.259*	0.283*	--			
4. Learning Experience	0.359*	0.506*	0.312*	--		
5. Living Experience	0.251*	0.298*	0.3*	0.273*	--	
6. Support Experience	0.284*	0.3*	0.286*	0.301*	0.269*	--

* $p < .001$

4.6.ii Comparative Analyses of Dimensions of Satisfaction on Institutional Recommendation

Comparatively, Table 4.49 shows how independent variables of satisfaction impact institution recommendation by international students studying at institutions in Australia, UK, and US. At Australian institutions, the overall model was significant $R^2 = .192 F(5, 5052) = 240.223, p < .001$ and all five IVs were statistically significant ($p < .001, t > 1.96$), with Learning

($\beta=.227$) having the most impact on institution recommendation, followed by Overall Satisfaction ($\beta=.201$), Support Services ($\beta=.158$), Arrival ($\beta=.133$), and Living ($\beta=.120$). At UK institutions, the overall model was significant $R^2 = .198$ $F(5, 6664) = 329.189$, $p < .001$ and Learning ($\beta=.229$) having the most impact on institution recommendation, followed by Overall Satisfaction ($\beta=.204$), Arrival ($\beta=.114$), Support Services ($\beta=.101$), and Living ($\beta=.095$). At US institutions, the overall model was significant $R^2 = .126$ $F(5, 890) = 25.563$, $p < .001$ and only three IVs were significant: Learning, Arrival, and Living Experiences. Of the three, Learning ($\beta=.252$) had the most influence on institution recommendation, followed by Arrival ($\beta=.166$), and Living ($\beta=.142$).

Table 4.49 Comparative regression analysis of institution recommendation on variables of satisfaction

Variables of Satisfaction	Australia			UK			US		
	β	t	$Sig.(p)$	β	t	$Sig.(p)$	β	t	$Sig.(p)$
Overall	0.201	11.247	0.000	0.204	16.473	0.000	0.057	1.381	0.168
Arrival	0.133	6.994	0.000	0.114	8.367	0.000	0.166	3.266	0.001
Learning	0.227	11.747	0.000	0.229	15.871	0.000	0.252	4.308	0.000
Living	0.120	6.528	0.000	0.095	7.059	0.000	0.142	2.695	0.007
Support Services	0.158	7.651	0.000	0.101	6.256	0.000	0.114	1.737	0.083

4.6.iii Associations between Variables of Satisfaction and Institutional Recommendation

Multivariate regression analyses were applied to examine the predictive value of the various aspects of student satisfaction in each dimension of experience on students' institutional recommendation. Table 4.50 shows how satisfaction with various arrival aspects (IVs) impact institutional recommendation (DV). Overall, arrival variables were found to significantly impact institutional recommendation, $R^2 = .223$ $F(17, 472) = 7.940$, $p < .001$ and those variables that impacted institutional recommendation were: the Accommodation Office and Social Activities, both at ($p < .05$, $t > 1.96$). Overall, learning variables were found to significantly impact

institutional recommendation $R^2 = .138$ $F(23, 14167) = 98.991$, $p < .001$ and the most significant Learning variables were Studying with People Across Cultures ($\beta = .068$); Organization of Course ($\beta = .069$); and Leading to a Good Job ($\beta = .064$). Overall, living variables were found to significantly impact institutional recommendation $R^2 = .150$ $F(24, 5781) = 42.413$, $p < .001$ and the most significant Living variables were Making Friend from this Country ($\beta = .124$); Networking ($\beta = .089$); and Quality of External Campus Environment ($\beta = .097$). Overall, support variables were not found to significantly impact institutional recommendation $R^2 = .160$ $F(6, 25) = .791$, $p > .05$ No Support Services variables were found to be significant on students' institutional recommendation.

Table 4.50 Regression analysis of satisfaction variables on overall institutional recommendation

Satisfaction Variables	β	t
Arrival Variables		
Accommodation Office**	0.184	3.242
Social activities**	0.129	2.143
Learning Variables		
Studying with people across cultures*	0.068	4.812
Organisation of course*	0.069	4.627
Leading to a good job*	0.064	4.229
Opportunities for work experience*	0.052	4.037
Teaching ability of lecturers*	0.062	3.888
Academic content*	0.061	3.874
Quality of lectures*	0.061	3.7
Career guidance from academic staff**	0.036	2.526
Time with academic staff**	0.037	2.524
Improve my English language skills**	0.037	2.488
Physical library facilities**	0.037	2.451
Academic staff command of English*	-0.051	-3.91
Living Variables		
Making friends from this country*	0.124	6.392
Networking*	0.089	4.086
Quality of the external campus environment*	0.097	3.616

Immigration and visa advice**	0.065	3.182
Transport links**	0.063	2.753
Availability of financial support**	0.043	2.414

Support Services Variables

None

*p<.001 **p<.05 ***p<.10

4.6.iv Comparative Analyses of Variables of Satisfaction on Institutional Recommendation

This section provides a comparative analysis of the impact of satisfaction variables on overall institutional recommendation at institutions in Australia, UK, and US. It shows which satisfaction variables directly influence international students' overall experience with their institution.

In the Arrival dimension, for the UK the overall model was significant $R^2 = .317$ $F(17, 242) = 6.622$, $p > .001$, and as displayed in Table 4.51, Making Friends with Others from Other Countries ($p < .05$, $t > 1.96$) and experience with the Accommodation Office were the only variables in the UK found to have an impact on overall institutional experience. The overall model for the impact of the arrival dimension on institutional recommendation was not found to be significant for Australia $R^2 = .168$ $F(17, 81) = .964$, $p > .05$, but was found to be significant for the US $R^2 = .262$ $F(17, 112) = 2.339$, $p < .004$, and yet no arrival variables were significant on the DV in Australia and the US.

Table 4.51 Comparative regression analysis of arrival variables on overall institutional recommendation

Arrival Variables	β	t
Australian Institutions		
None		—
UK Institutions		
Making friends other countries**	0.225	2.574
Accommodation Office**	0.151	2.249

US Institutions

None

* $p < .001$ ** $p < .05$ *** $p < .10$

In the Learning dimension, for Australia the overall model was significant $R^2 = .160$ $F(23, 7744) = 63.963$, $p > .001$, likewise for the UK $R^2 = .125$ $F(23, 4953) = 30.812$, $p > .001$, and the US $R^2 = .085$ $F(23, 1422) = 5.741$, $p > .001$ (Table 4.52). There were several satisfaction variables that were significant on international students' institutional recommendation in Australia, with the Organization of Courses ($\beta = .08$) and Teaching Ability of Lecturers ($\beta = .078$) being the most impactful. Academic Content ($\beta = .102$) and Coursework Leading to a Good Job ($\beta = .098$) were found to be the most significant on institutional recommendation in the UK. In the US, Studying with Others across Cultures ($\beta = .158$) was the most significant variable.

Table 4.52 Comparative regression analysis of learning variables on overall institutional recommendation

Learning Variables	β	t
Australian Institutions		
Organisation of course*	0.08	3.868
Teaching ability of lecturers*	0.078	3.549
Opportunities for work*	0.065	3.788
Academic staff English**	-0.061	-3.463
Improve English skills**	0.064	3.216
Career guidance**	0.054	2.913
Leading to good job**	0.051	2.509
Quality of lectures**	0.053	2.439
Physical library facilities**	0.043	2.227
Academic content**	0.044	1.999
UK Institutions		
Academic content*	0.102	4.185
Leading to good job*	0.098	3.935
Studying across cultures*	0.093	4.153
Organisation of course**	0.076	3.338
Academic staff English**	-0.05	-2.469

Teaching ability of lecturers**	0.056	2.287
Quality of lectures**	0.056	2.122

US Institutions

Studying across cultures**	0.158	2.98
Feedback on coursework**	-0.149	-2.398

*p<.001 **p<.05 ***p<.10

In the Living dimension, for Australia the overall model was significant, $R^2 = .150$ $F(24, 5781) = 42.413$, $p > .001$, similarly for the UK, $R^2 = .150$ $F(23, 4094) = 31.362$, $p > .001$, and the US, $R^2 = .128$ $F(23, 1120) = 8.266$, $p > .001$. The most influential satisfaction variables for the Living dimension (Table 4.53) were: Making Friends with Others in this Country ($\beta = .124$) and the Quality of the External Campus ($\beta = .089$) in Australia; Quality of the External Campus ($\beta = .089$) and Quality of Buildings ($\beta = .079$) in the UK; and Quality of Accommodation ($\beta = .108$) in the US.

Table 4.53 Comparative regression analysis of living variables on overall institutional recommendation

Living Variables	β	t
Australian Institutions		
Making friends this country*	0.124	6.392
Networking*	0.089	4.086
Quality of external campus*	0.097	3.616
Immigration advice**	0.065	3.182
Transport links**	0.063	2.753
Financial support**	0.043	2.414
UK Institutions		
Quality of external campus**	0.089	3.11
Quality of buildings**	0.079	2.948
Campus surroundings**	0.078	2.709
Making friends other countries**	0.058	2.327
Networking**	0.059	2.329
Safety and security**	0.055	2.212
US Institutions		
Cost of accommodation**	-0.107	-2.355

Quality of accommodation**	0.108	2.319
Work opportunities**	-0.088	-2.038
Networking**	0.122	2.04
Making friends this country**	0.103	1.981

*p<.001 **p<.05 ***p<.10

In the Support Services dimension, for Australia the overall model was not significant, $R^2 = .145$ $F(5, 27) = .917$, $p < .05$, similarly for the US, $R^2 = .287$ $F(8, 29) = 1.461$, $p < .05$, while for the UK the model was significant $R^2 = .662$ $F(14, 33) = 4.621$, $p > .001$. As shown in (Table 4.54), experience with the Finance Department ($\beta = 1.09$) and Disability Support ($\beta = 1.082$) in the UK and experience with the Accommodation Office ($\beta = 2.477$) in the US were the significant Support Services variables on students' overall institutional experience in these two countries. No variables in the Support Services dimension were found to be significant on overall institutional experience in Australia.

Table 4.54 Comparative regression analysis of support services variables on overall institutional recommendation

Support Services Variables	β	t
Australian Institutions		
None		—
UK Institutions		
Finance department**	1.09	3.197
Disability Support**	1.082	2.569
Health Centre**	-1.431	-2.269
Residence Halls**	0.746	2.026
US Institutions		
Accommodation Office**	2.477	2.093

*p<.001 **p<.05 ***p<.10

4.7 Summary of Findings

In 2016, 45,701 international undergraduate students from 96 institutions across Australia, the UK and the US participated in the International Student Barometer. Of this sample, 21,117 (46.2%) students were from Australian institutions, 21,443 (46.9%) were from the UK, and 3,141 (6.9%) were from the US. Of the 96 participating institutions in the sample, 42 (43.8%) were from the UK, 34 (35.4%) were from Australia, and 20 (20.8%) were from the US.

Research question 1: *What are the demographics of student respondents studying at institutions in Australia, the UK, and the US?*

4.7.i Demographic Variables

Age Demographics

35,599 (90%) of all respondents in this study, at institutions across the Australia, UK, and US combined, were 25 years old or younger. At Australian institutions, 10,071 (59.1%) students were between the ages of 21 and 25. At institutions in the UK, 10,375 (51.5%) students were 20 years old or younger. At institutions in the US, 1,249 (51.5%) students were 20 years old or younger.

Gender Demographics

22,691 (58.1%) of all respondents were female and 16,352 (41.8%) were male. 28 students identified themselves as Transgender FTM, Non-binary/gender fluid/genderqueer, and Indeterminate/Intersex/Unspecified, and 7 preferred not to say. At Australian institutions, 9,471 (58.4%) respondents were female and 6,721 (41.4%) were male. At UK institutions, 11,982 (59.0%) were female, 8,323 (41.0%) were male. At US institutions, there were 1,281 (50.9%) male students and 1,238 (49.1%) female students.

Nationality Demographics

International respondents in this survey held 204 different nationalities from countries, nation-states, and territories around the world. 18.5% (8,434) of all respondents at institutions in Australia, UK and US were from China. Chinese students also represented the most number of respondents at Australian institutions (24%), at UK institutions (10%), and at US institutions (38.7%). From a regional standpoint, 24,701 (54.1%) of all respondents were from Asia. This was also the case at Australian institutions (76.3%) and US institutions (54.1%). At institutions in the UK, the most number of international student respondents were from Europe (49.7%).

Year in Program Demographics

17,224 (37.7%) of all respondents in this study reported that they were studying in a year other than their first or last year. Correspondingly, most students were studying in a year other than their first or last year at Australian institutions (39.1%) and in the US (39.4%). At UK institutions, 40.2% of the respondents were in their first year.

Field of Study Demographics

International students in this study studied in 23 different fields at the time they took the survey. Most of them were studying Business & Administrative Studies 10,268 (22.5%), which was also the case at institutions in Australia (25.4%), UK (16.7%), and the US (42.0%).

Source of Funding Demographics

23,525 (67.4%) of all international students reported that they were financially sponsored by family funds to pay for their education. Comparatively, this was also the case at Australian institutions (77.8%), in the UK (56.2%), and in the US (79.7%).

Research question 2: *To what extent are international students satisfied with their campus arrival, learning, living, and support services environments?*

4.7.ii Satisfaction with University Experience

Satisfaction with Overall University Experience

The demographic analysis of data obtained from all survey participants showed that respondents were generally satisfied with all aspects of their institution (Mean=3.15). Specific to institutional environments, students were slightly most satisfied with their overall arrival experience (Mean=3.13) than overall living experience (Mean=3.7), overall learning experience (Mean=3.06), and overall experience with support services (Mean=3.02). Comparatively, international students at institutions in Australia, the UK and the US were generally satisfied, overall, with all aspects of their institution. However, students in the UK (Mean=3.21) showed a higher level of satisfaction than those in the US (Mean=3.13) and in Australia (Mean=3.09). Respondents were most satisfied with their overall arrival experience and least satisfied with support services at institutions in each of the three destination countries and combined.

Satisfaction with Arrival Experience

Overall, international students were most satisfied with the formal welcome provided by their institution (Mean=3.18) and least satisfied with the ability to make friends with local natives (Mean=2.99). At Australian institutions, respondents were most satisfied, upon arrival, with their experience setting up a bank account (Mean=3.17) and least satisfied with the ability to make friends with local natives upon arrival (Mean=2.86). At UK institutions, respondents were most satisfied, upon arrival, with making friends from other countries (Mean=3.27) and least satisfied with the ability to set up their bank account (Mean=2.87). At US institutions, respondents were most satisfied, upon arrival, with meeting their academic staff (Mean=3.24), and least satisfied with the opportunity to make friends with local natives (Mean=3.0).

Satisfaction with Learning Experience

Overall, international students were most satisfied with their institution's academic staff command of English (Mean=3.33), and least satisfied with factors related to employment and employability in their learning environment (Mean=2.91). At Australian institutions, respondents were most satisfied with their online library facilities (Mean=3.27), and least satisfied with finding work opportunities during their studies (Mean=2.83). At UK institutions, respondents were most satisfied with the English command of the academic staff (Mean=3.41), and like at Australian institutions, they were the least satisfied with finding work opportunities during their studies (Mean=2.97). At US institutions, respondents were most satisfied with the English command of the academic staff (Mean=3.32), and similarly to students in Australia and the UK, they were the least satisfied with finding work opportunities during their studies (Mean=3.05).

Satisfaction with Living Experience

Overall, international students were most satisfied with the sense of safety and security at their institution (Mean=3.26), and least satisfied with factors related to financial support in their living environment: the availability of financial support (Mean=2.56). At Australian institutions, respondents were most satisfied with safety and security on campus (Mean=3.2), and least satisfied with financial support in their living setting (Mean=2.54). At UK institutions, and similarly to students at Australian institutions, respondents were most satisfied with safety and security on campus (Mean=3.33), and least satisfied with financial support in their living setting (Mean=2.56). At US institutions, respondents were most satisfied with the sports facilities on campus (Mean=3.27), and similarly to students in Australia and the UK, they were least satisfied with the cost of accommodation (Mean=2.6).

Satisfaction with Support Services

Overall, students were most satisfied with their institution's provision of chaplaincy or multi-faith resources (Mean=3.35), and least satisfied with services provided by campus eating places (Mean=3.06). At Australian and UK institutions, respondents were most satisfied with the provision of chaplaincy or multi-faith services on campus. At US institutions, respondents were most satisfied with the student union services (Mean=3.34). In all three countries, international students were the least satisfied with campus eating options.

Table 4.55 provides a comparative summary of the variables of satisfaction with the highest and lowest mean scores for all institutions combined as well as in each dimension of experience.

Table 4.55 Australia, UK, US compared: Variables with highest and lowest satisfaction (4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied)

All Institutions Combined	<i>Highest Satisfaction</i>	<i>Mean</i>	<i>Lowest Satisfaction</i>	<i>Mean</i>
Arrival Experience	Formal welcome	3.18	Making Friends (Local)	2.99
Learning Experience	Academic Staff English	3.33	Finding Work during Studies	2.91
Living Experience	Safety and Security	3.26	Financial Support	2.56
Support Services	Chaplaincy/Multi-faith	3.35	Campus Eating Options	3.06
Australian Institutions	<i>Highest Satisfaction</i>	<i>Mean</i>	<i>Lowest Satisfaction</i>	<i>Mean</i>
Arrival Experience	Setting up a Bank A/C	3.17	Making Friends (Local)	2.86
Learning Experience	Online Library Facilities	3.27	Finding Work during Studies	2.83
Living Experience	Safety and Security	3.2	Financial Support	2.54
Support Services	Chaplaincy/Multi-faith	3.34	Campus Eating Options	3.05
UK Institutions	<i>Highest Satisfaction</i>	<i>Mean</i>	<i>Lowest Satisfaction</i>	<i>Mean</i>
Arrival Experience	Making Friends (Int'l)	3.27	Setting up a Bank A/C	2.87
Learning Experience	Academic Staff English	3.41	Finding Work during Studies	2.97
Living Experience	Safety and Security	3.33	Financial Support	2.56
Support Services	Chaplaincy/Multi-faith	3.38	Campus Eating Options	3.08
US Institutions	<i>Highest Satisfaction</i>	<i>Mean</i>	<i>Lowest Satisfaction</i>	<i>Mean</i>
Arrival Experience	Meeting Academic Staff	3.24	Making Friends (Local)	3
Learning Experience	Academic Staff English	3.32	Finding Work during Studies	3.05

Living Experience	Sports Facilities	3.27	Cost of Accommodation	2.6
Support Services	Student Union Services	3.34	Campus Eating Options	2.98

Research question 3: *Are there any apparent associations or correlations between international students' overall level of satisfaction with their institution and their experience with their arrival, learning, living, and support services environments?*

4.7.iii Associations and Correlations between the Dimensions of Satisfaction and Overall University Experience

All four independent variables (Satisfaction with Arrival, Learning, Living, and Support Services) were found to be statistically significant on overall satisfaction. In other words, they each impacted students' overall satisfaction with all aspects of their University experience. Of the four IVs, Satisfaction with Learning Experience ($\beta=.302$) influenced Overall Satisfaction with University the most. Satisfaction with Support Services ($\beta=.124$) had the least impact on students' rating of their overall satisfaction with all aspects of their university experience. This was also the finding when regression analysis was run by institution country: Satisfaction with Learning Experience had the most impact and Satisfaction with Support Services has the least impact on Overall Satisfaction with all aspects of the University experience across Australia and the UK. At US institutions, support services did not have any impact on students' overall university experience. International students' overall satisfaction with their institution was also positively correlated with all four dimensions of experiences. There was a substantial correlation with Learning satisfaction ($r =.506, p<.001$), and moderate correlation with Support Services satisfaction ($r =.3, p<.001$), Living experience ($r =.298, p<.001$), and Arrival satisfaction ($r =.283, p<.001$).

4.7.iv Associations between Variables of Satisfaction within Each Dimension

Arrival Experience Variables

International students' experience with First Night Stay ($p < .001$, $t > 1.96$) and Welcome/Airport Pickup ($p < .001$, $t > 1.96$) had the most significant impact on their satisfaction with their overall arrival experience. Students' first night stay experience influenced their overall arrival satisfaction the most ($\beta = .231$), followed by experience being welcomed and picked up from the airport ($\beta = .176$). Meeting Academic Staff when students first arrive to campus was negatively associated with their overall arrival experience. At Australian institutions, no arrival variables were found to significantly impact overall arrival experience ($p > .001$, $t < 1.96$). At institutions in the UK, students' first night stay ($p < .001$, $t > 1.96$) was the only variable that had a significant impact on overall arrival experience. At US institutions, students' satisfaction with airport pickup and welcome was the only variable that significantly influenced their overall arrival experience.

Learning Experience Variables

The Learning Experience variables that were the most significant on students' overall Learning experience were: Quality of lectures, Academic content, Expertise of lecturers, Organisation of course, Teaching ability of lecturers, and Learning that might Lead to a good job, all at ($p < .001$, $t > 1.96$). The Quality of lectures influenced their overall learning satisfaction ($\beta = .159$) the most. Academic Staff Command of English was negatively associated with students' overall learning experience. At Australian institutions, the quality of lectures ($\beta = .178$) had the most impact on overall satisfaction with students' learning experience. Similarly, at UK institutions, the quality of lectures ($\beta = .145$) had the most impact on overall satisfaction. At US

institutions, the expertise of lecturers was found to have the most impact on overall learning experience ($\beta=.178$).

Living Experience Variables

The Living Experience variables that were found to significantly impact students' overall Living experience were: Quality of accommodation and Access to suitable accommodation, both at ($p<.001, t>1.96$). Most impactful on overall living experience was the Quality of accommodation ($\beta=.183$). Quality of accommodation had the most impact on satisfaction with students' overall living experience at Australian, UK and US institutions.

Support Services Variables

The Support Services variables that were found to be the most significant on students' overall experience with their institution's support services were: Services provided by the International Office and Clubs and societies, both at ($p<.001, t>1.96$). International Office services was the most influential ($\beta=.047$). At Australian institutions, International Office services ($\beta=.053$) had the most impact. At UK institutions, Campus eating places ($\beta=.029$) had the most impact. At US institutions, satisfaction with the International Office services was the only significant IV ($p<.001, t>1.96$).

4.7.v Associations between Variables of Satisfaction and Overall University Experience

Specific to arrival experience of international students, experience with the Finance Department ($\beta=1.137$) had the most significant impact on students' overall satisfaction with institution. The learning aspect of satisfaction that had the most significant impact on students' overall institutional satisfaction was the Quality of lectures ($\beta=.085$). The living aspect of satisfaction that had the most significant impact on students' overall institutional satisfaction was Access to suitable ($\beta=.074$). Cost of accommodation had a negative association with overall

institutional experience. None of the support services variables were found to influence international students' overall institutional satisfaction. Comparatively, in Australia, no Arrival variable was found to be significant. Quality of Lectures was the most impactful learning variable on overall satisfaction, and Suitable Accommodation was the most influential living variable on overall university experience. In the UK, the Finance department for arrival, Expertise of Lecturers for learning, and Quality of Accommodation for Living, were the most significant on overall university experience. In the US, the institution's orientation program was most significant for Arrival, Expertise of Lecturers for Learning, and Quality of Accommodation for Living. No variables in the Support Services dimension were found to be significant on students' overall institutional experience across Australia, UK, and US institutions.

Table 4.56 provides a comparative summary of the variables of satisfaction with the most and least significant influence within each dimension of satisfaction as well as on overall institutional experience.

Table 4.56 Australia, UK, US compared: Variables with most significant influence

All Institutions Combined	<i>Within Dimension</i>	β	<i>With Overall Experience</i>	β
Arrival Experience	First Night Stay*	0.23	Finance department*	1.137
Learning Experience	Quality of Lectures*	0.15	Quality of lectures*	0.085
Living Experience	Quality of Accommodation*	0.18	Access to suitable accommodation*	0.074
Support Services	International Office*	0.04	**	
Australian Institutions	<i>Within Dimension</i>	β	<i>With Overall Experience</i>	β
Arrival Experience	**		**	
Learning Experience	Quality of Lectures*	0.17	Quality of lectures*	0.121
Living Experience	Quality of Accommodation*	0.18	Suitable accommodation*	0.074
Support Services	International Office*	0.05	**	
UK Institutions	<i>Within Dimension</i>	β	<i>With Overall Experience</i>	β
Arrival Experience	First Night Stay*	0.25	Finance department**	0.207
Learning Experience	Quality of Lectures*	0.08	Expertise of lecturers*	0.085
Living Experience	Quality of Accommodation*	0.24	Quality of accommodation*	0.077
Support Services	Campus Eating Options*	0.02	**	

US Institutions	<i>Within Dimension</i>	β	<i>With Overall Experience</i>	β
Arrival Experience	Welcome/Airport Pickup*	0.47	Institution orientation**	0.339
Learning Experience	Lecturers Expertise*	0.17	Expertise of lecturers**	0.146
Living Experience	Quality of Accommodation*	0.29	Quality of accommodation**	0.093
Support Services	International Office*	0.07	**	

*Significant at $p < .001$ **Significant at $p < .05$ ***None significant

Research question 4: *How do the demographic variables of respondents (age, gender, nationality, field of study, study stage, and source of funding) impact their level of satisfaction with their institution?*

4.7.vi Associations between Variables of Satisfaction and Student Demographics

Age

91.6% of respondents who were 21-25 years old indicated that they were satisfied or very satisfied with their institution. 92.8% of those who were 20 years old or younger were satisfied or very satisfied with their overall experience. The dimensions of satisfaction were all significant on overall satisfaction for students 21-25 years old and those at all other ages, with the Learning as the most influential.

Gender

92% of female students and 90.6% of male students indicated that they were satisfied or very satisfied with their institution. The dimensions of satisfaction were all significant on overall satisfaction for female and male students, with the Learning as the most influential.

Nationality

89.8% of students from China, which was the top sending country of international students in this study, indicated that they were satisfied or very satisfied with their overall institutional experience. The dimensions of satisfaction were all significant on overall

satisfaction for students from China and students with all other nationalities, with the Learning as the most influential.

Year of Study

91.4% of students who were in their first year of study indicated that they were satisfied or very satisfied with their overall institutional experience. 90.3% of those in their last year, and 91% of those who were in an in-between year, were also satisfied or very satisfied. The dimensions of satisfaction were all significant on overall satisfaction for students in their first year, with the Learning ($\beta=.298$) as the most influential.

Field of Study

90.5% of students who were studying Business and Administrative Studies indicated that they were satisfied or very satisfied with their overall institutional experience. 90.4% of those in Engineering were also satisfied or very satisfied. The dimensions of satisfaction were all significant on overall satisfaction for students studying Business and those in all other programs of study, with the Learning as the most influential.

Source of Funding

91.8% of students who were funded by family funds indicated that they were satisfied or very satisfied with their overall institutional experience. 92% of those who received government funding were also satisfied or very satisfied. The dimensions of satisfaction were all significant on overall satisfaction for students with Family Funds and those with all other sources of funding, with the Learning as the most influential.

Research question 5: *How likely are international students to recommend their current institution to prospective applicants based on their satisfaction and experience with that institution?*

4.7.vii Satisfaction and Institutional Recommendation

Respondents at all institutions combined recommended and encouraged other students to apply to their current institution (Mean=4.16). International students in the UK were more likely to recommend their institution (Mean=4.25) compared to those in the US (Mean=4.12) and Australia (Mean=4.07). International students who were very satisfied with their institutional experience would most likely actively encourage (66.3%) or encourage (30.9%) future international students to apply to their institution. Simultaneously, those who were very dissatisfied with their overall experience would most likely not recommend their institution to others (0.8%). A comparative contingency analysis of scores for institutions in Australia, UK, and US demonstrated a similar trend. All dimensions of satisfaction positively impacted students' institutional recommendation, with the Learning ($\beta=.233$) as the most influential. Overall University Experience ($\beta=.197$) also influenced Institutional Recommendation positively. Comparatively, the Learning Experience of students had the most significant impact on students' institutional recommendation at Australian, UK and US institutions. A correlational analysis showed that international students' overall satisfaction with their institution was moderately positively correlated with institutional recommendation ($r=.383, p<.001$). International students' satisfaction with their four dimensions of experiences were also correlated with institutional recommendation, with a substantial positive correlation observed with Learning satisfaction ($r=.359, p<.001$).

4.7.viii Associations between Variables of Satisfaction and Institutional Recommendation

The arrival variables that impacted institutional recommendation the most was experience with the Accommodation Office. The most significant Learning variable was Studying with People across Cultures ($\beta=.068$). The most significant Living variable was Making Friends with

Others from this Country ($\beta=.124$). No Support Services variables were found to be significant on students' institutional recommendation. Comparatively, Making Friends with Others from Other Countries and experience with the Accommodation Office were the only arrival variables in the UK found to have an impact on overall institutional experience. No arrival variables were significant on the DV in Australia and the US. In the Learning dimension in Australia, Organization of Courses ($\beta=.08$) was the most impactful. Academic Content ($\beta=.102$) was found to be the most significant on institutional recommendation in the UK. In the US, Studying with Others across Cultures ($\beta=.158$) was the most significant variable. The most influential satisfaction variable for the Living dimension was: Making Friends with Others in this Country ($\beta=.124$) in Australia; Quality of the External Campus ($\beta=.089$) in the UK; and Quality of Accommodation ($\beta=.108$) in the US. Experience with the Finance Department ($\beta=1.09$) in the UK and Experience with the Accommodation Office ($\beta=2.477$) in the US were the significant Support Services variables on students' overall institutional experience in these two countries. No variables in the Support Services dimension were found to be significant on overall institutional experience in Australia.

CHAPTER 5: DISCUSSION AND CONCLUSION

The purpose of this research was to determine which aspects of the university experience international students were most or least satisfied with, and in turn, how they went about recommending their institution to future applicants, based on that experience. The study also investigated the associations among the different dimensions of student experience and recommendation. By using quantitative research methods and employing a series of descriptive and inferential statistical techniques to analyze the data, the researcher demonstrated that all four dimensions of satisfaction were positively associated with students' overall university experience and the recommendation of their current institution to future applicants. This chapter discusses the specifics of these findings as they relate to key implications and policy recommendations for university administrators, practitioners, and researchers. These considerations also pertain to how resources might best be allocated to support and enhance the experience of international students, leading to more effective institutional recruitment and retention strategies. In this chapter, sections 5.1, 5.4, and 5.5 are reproduced from a jointly-authored article entitled “Improving the Student Experience: Learning from a Comparative Study of International Student Satisfaction” by Ammigan and Jones (2018). With much thanks to the co-author, permission was received to include her contributions from the article into this dissertation.

5.1 Discussion

Findings from this study, which were presented in the previous chapter, showed that international students were generally satisfied with all aspects of their institution in all three countries examined. Support services scored the lowest overall satisfaction means within all three countries but students were still generally satisfied with this dimension of experience. Some care is needed in understanding, for example, 'services provided by the International

Office', as these may well differ across countries and institutions. This could also be the case for 'campus eating options', amongst others, so some of these results will need interpreting by individual institutions. However, the overall picture presented here, both within and across countries, offers a context for such interpretation.

Another important factor for consideration is the changing nature of student expectations and the link to provision of services. Many of the institutions surveyed for the ISB will have been receiving feedback for several years and learning from these measures of student satisfaction at institutional level to enhance their provision and support for international students and to better address their needs. As indicated by the co-author in the Ammigan and Jones (2018) article,

...one surprising finding shows that internet access was the aspect of least influence on the overall living experience of international students in the UK. Institutional feedback by i-graduate around ten years ago was that this was the aspect of greatest concern to international students. It is likely both that the standard of internet services has improved during that time, and also that an understanding of the crucial role it plays, for all students, not only international students, has caused universities to greatly enhance their provision over the years. (p. 14)

Perhaps also a reflection of increasing reliance on online services, a further surprising finding was that physical library facilities had the least influence on overall living experience in the US. Some findings are less surprising and are in line with anecdotal concerns commonly heard, for example that international students are relatively less satisfied with opportunities to make friends with local students both during their arrival and living experiences. Another common student concern evident in the same table is the cost of study and accommodation, allied with the ability to find work during studies.

Satisfaction was high with, perhaps, more 'niche' aspects of experience such as use of the accommodation office, residence hall welfare and with chaplaincy and multi-faith provision, even though the numbers accessing them were relatively low. This suggests that those who do have cause to use these services were relatively satisfied with them.

Given that the original intent of this study had been to investigate the role of support services in student satisfaction, it was surprising to find that it had the least overall influence of all four dimensions on international student experience in each of the three countries examined. However, there can be no room for complacency. This research finds clearly that the academic dimension (learning satisfaction) is the most important in terms of influencing the overall student experience and institutional recommendation. The literature review also indicates the importance of a holistic university approach suggesting that, having been successful in achieving a good level of satisfaction across all dimensions of experience, institutions should consider placing greater emphasis on support services that enhance the learning experience, and facilitating strategic collaborations between academic departments and support units.

Another interesting and perhaps counterintuitive finding was that the Academic staff command of English was found to be negatively associated with overall learning satisfaction and institutional recommendation. This negative impact can be difficult to explain but a possible interpretation is that international students for whom English is not a native language could be overwhelmed by use of advanced vocabulary and language in the academic setting (de Jong & Harper, 2005).

In establishing a strong association and correlation between international student satisfaction and institutional recommendation, as suggested in the study by Mavondo, Tsarenko, and Gabbott (2004), this research strongly supports the argument that the student experience can

complement the recruitment and retention efforts of an institution and add a competitive edge in attracting talented students to campus. This should be an intentional approach in support of the broader internationalization goals of the university.

5.2 Implications of Key Findings

The implications of key findings are discussed in five different sections, corresponding with the main dimensions of experience and recommendation reviewed throughout the study. The first section describes implications pertaining to overall student satisfaction and institutional experience, followed by sections on international students' arrival experience, learning experience, living experience, and support services experience. For institutions to maintain the provision of quality support and services to international students in the classroom and beyond, it is important that the entire university community is aware of the needs, challenges, and concerns of these students.

5.2.i Overall Satisfaction and Institutional Experience

As discussed previously, survey participants were generally satisfied with all dimensions (arrival, learning, living, support services) of their university experience at all 96 institutions across Australia, UK, and US. International students were also satisfied with their overall institutional experience and were found to mostly recommend and encourage future students to apply to their current institution. This suggests that, despite the differences that might exist in the structure and system at each institution, and the many factors that may influence satisfaction, respondents studying in these three countries had more similar than different experiences, overall. It indicates that general benchmarks, protocols, and practices could be used for the most part across institutions from these three countries, or indeed in other countries, to enhance the experience of international students.

The findings also revealed that each dimension of satisfaction was positively associated and correlated with students' overall university experience and recommendation at institutions in each of the three countries. In this context, it behooves all internationally minded institutions to capitalize on their existing campus support services as they create strategic and collaborative engagement programs, both in and out of the classroom, to generate positive attitudes and experiences for students on campus. Faculty and staff, from academic departments, student affairs, accommodation offices and dormitories, dining services, the orientation office, career services, counseling centers, transportation services, etc. must work together and contribute to support the experiences of students and the educational mission of institutions as a global community.

International students who were highly satisfied were most likely to recommend their institutions to future applicants, and those with low satisfaction ratings were unlikely to encourage others to apply. This has strong recruitment and retention implications for various units across campus. Beyond ensuring a positive experience for all students, it might be strategic, for instance, for an institution's recruitment office to work closely with their support units and alumni relations offices in identifying ways to include current international students, registered student organizations, and alums in their recruitment efforts overseas to tell their story to prospective applicants. Examples of events include recruitment fairs, alumni relations meetings, and other admissions events and programs.

5.2.ii The Arrival Experience

Of the four dimensions of experience, international student respondents rated their arrival experience as the highest satisfaction mean scores in each destination country and all combined. Within the arrival dimension, students were most satisfied with the formal welcome provided by

the institution, which was also significant on their overall arrival experience. Students indicated that their experience with the accommodation office was highly significant on the recommendation of their current institution. At US institutions particularly, orientation programs were also found to positively impact student's overall institutional experience. In the UK, international students were the least satisfied with setting up their bank account upon arrival at their institution and pointed out that their experience using the billing office or finance department would impact their overall level of satisfaction with their institution.

This reflects the importance of making sure that new and incoming international students feel supported right when they get to campus, through airport pick up and transportation, orientation programs and other welcoming events, and assistance with first night accommodation, setting up a bank account, and questions regarding their finances. This implication is consistent with Banjong's (2015) recommendation on the "sensitization of resources" early upon arrival to campus. An increase in changing immigration policies and compliance standards, recurring safety and security concerns, and increased political instability across nations worldwide have also added another layer of stress for international student applicants leaving their home country to go study abroad (Choudaha & van Rest, 2018). Institutions must remain intentional at creating a sense of belonging for international students and support these initiatives through year-round communication and outreach campaigns. The #YouAreWelcomeHere campaign (Temple University, n.d.), for instance, is a welcome message instituted nationally by higher education institutions in the US to affirm to international students that campuses are diverse, friendly, safe and committed to student development, despite the social, cultural and political issues. Participating institutions and organizations have developed internal communication plans in the form of statements, photos, videos, events, and other

creative platforms that feature members of the university community. In the UK, the #WeAreInternational campaign was launched as a sign of commitment from universities to remain a welcoming home for international students and global scholarship (University of Sheffield, n.d.). This movement now includes over 100 British universities.

Preparing international students on what to expect before they even reach their institution can also help them transition smoothly and settle quickly into their new environment. Pre-arrival information on the visa application process, transportation, dormitory options, health insurance, class registration and other key issues can be made readily accessible in their admissions packet and across existing online and social media platforms. Increasingly, more institutions have begun to host pre-departure orientation programs overseas even before incoming students travel to their destination university. Upon arrival to campus, hybrid in-person and online orientation programs in partnership with other student services units can further assist and guide international students towards a positive and successful experience. Academic advisors should be encouraged to discuss courses being offered in more detail, including class size, organization, and level of difficulty, so that students can choose a more balanced schedule prior to the start of their first semester. Working closely with academic services throughout the semester to pinpoint common challenges and address them through refined programming and initiatives can also serve as a proactive approach to supporting students at the beginning of their studies.

International students in Australia and the US indicated that they were least satisfied with opportunities to make friends with local students upon arrival to campus, a finding that is consistent with Gareis' (2012) study on friendship experiences at a US college campus. However, those studying in the UK had a very different experience—they were most satisfied with opportunities to make friends with local UK students. Making friends with students from

other countries was also found to be the most influential arrival variable on institutional recommendation. It might therefore be worthwhile for institutions in Australia and the US to look at what UK institutions are doing differently to provide this type of experience to their international students, which appears to be an important aspect of the arrival dimension. The introduction of a buddy program, offering networking opportunities, and hosting several social and cultural events once students arrive to campus can help them connect, engage, and get involved with others right when they get to campus.

5.2.iii The Learning Experience

Findings from this research revealed that, while all four dimensions of experience were positively associated with overall university experience and institutional recommendation, the learning experience of international students had the greatest influence on the dependent variables for each destination country and all combined. This finding is compelling. It is perhaps the most significant implication in this study, given that the original intent of this research was to focus on the role of support services in student satisfaction. It suggests that the academic setting, in the form of in-class teaching, studies, and facilities, must be central to international students' university experience, as pointed out in Butt and Rehman's (2010) article. This includes the academic and pedagogic quality of teaching, expertise of faculty and academic staff, physical infrastructure of classrooms and labs, technology, academic support services, and the social climate within the learning environment. From a marketing and recruitment perspective, institutions must remain aware of the impact that learning might have on students' likelihood to recommend their university to others, and in turn be intentionally highlighting relevant academic experiences, achievements, stories, and rankings to prospective students.

Of the different aspects of the learning experience, the quality of lectures was found to be the most impactful on overall university experience and recommendation for all respondents. That said, it did not carry the highest satisfaction mean scores among international students, indicating that institutions must continually assess the quality of teaching and identify ways to improve lectures. The expertise of lecturers was found to have the most significant influence on overall university experience at UK and US institutions, and the teaching ability of lecturers was the most impactful aspect of learning on institutional recommendation in Australia. These findings might have an implication for how universities recruit, train, and retain qualified faculty and teaching assistants that can promote the quality of learning and academic success. With the increasing number of international students in classrooms, faculty must also be encouraged to design courses that are conducive for learners across cultures and different systems of education. This might include adjusted teaching and communication methods and an internationalized curriculum to enhance the academic relationship between international students and faculty.

International students were not as satisfied with opportunities to get work experience as a part of their studies. This aspect of learning received the lowest satisfaction mean scores in each destination country but was found to significantly influence students' overall learning experience and institutional experience. This implication calls for institutions to identify ways to provide career planning and development not only as a subsidiary support service for international students, but also in a way that is integrated and incorporated as part of the academic, curricular, and classroom experiences. It appears that there is a clear need for more career guidance and resources from academic faculty and staff as part of the curriculum.

5.2.iv The Living Experience

Regarding the living dimension of experience in this study, a few variables stood out, along with some implications for university administrators to consider. International students indicated lower levels of satisfaction with opportunities to make friends with other students in their host country. This finding corresponds with what students indicated about opportunities to make friends upon arrival at their institutions in Australia and the US. While the satisfaction mean scores of making friends with other local students were relatively lower than other living variables, it showed a positive significant association with overall university experience and recommendation. Again, this signals the importance for institutions to develop opportunities for student engagement and involvement throughout students' tenure on campus, which aligns well with Arthur's (2017) recommendation on assisting international students with their social adjustment and transition to campus. These initiatives must accompany both curricular and extra-curricular programs and occur in social settings inside and outside of the classroom, as posited by Montgomery (2010). In addition to meeting the needs of students, creating global engagement programs such as weekly coffee hours, ice cream socials, leadership and volunteer programs, film and book clubs, conversation partners, and buddy programs can also foster campus-wide collaborations in support of campus internationalization.

Another aspect of the living experience that must be discussed is the accommodation for international students. Particularly, having access to suitable accommodation during their time at the university was found to have a significant impact on students' overall university experience, which is a finding consistent with Brett's (2013) report. At Australian institutions, suitable accommodation was the most influential variable on overall experience. In the UK and the US, the quality of accommodation was most significant on students' overall experience with their

institution. Perhaps an expected finding, but one that this study confirms, is that the cost of accommodation had a negative association with institutional recommendation. In other words, the higher the cost of accommodation, the least likely students were to recommend their institution to other applicants. Therefore, recruiters and admissions staff must be aware of the quality and cost of accommodation options when recruiting international students. While there are many factors that affect cost, including personal preferences and cost of living variances by location, it might be helpful for institutions to be transparent about living expenses and set a fair expectation for incoming students right from the beginning of their studies.

There are evidently many known benefits to studying overseas and such an experience can prove to be a very expensive option for students. It is therefore not surprising for international students and their parents to have high expectations and be critical when it comes to the living environment and conditions provided by institutions, as discussed in the ISB report by Brett (2013). These include access to quality and affordable accommodation, transportation options, dining services, safety and security, internet and technology, and opportunities to meet other students locally.

5.2.v The Support Services Experience

The findings investigating campus support services found that international students were generally satisfied with the services provided by their institution. While scoring the lowest satisfaction mean score of the four dimensions of experience, support services was found to be significant on overall university experience and institutional recommendation. Aligned with Hanassab and Tidwell's (2002) study, it is important that support offices constantly assess student needs and adjust services in order to meet the expectations and demands of students,

ranging from pre-arrival to graduation. Institutions must also remain strategic in how they provide services to students.

Knowing that satisfaction with all dimensions of the student experience has a direct impact on overall experience and institutional experience, it is inherent that International Student Services (ISS) develop and host programs and services that support students in their arrival, learning, and living settings. As suggested by Peterson et al. (1999), this must be done collaboratively with other support units on campus such as Student Affairs, the Accommodation Office, dining services, Career Services, the Counseling Center, Enrollment Management, and academic departments. With Learning as the most influential aspect of the university experience, across the board, it is critical that institutions put a greater emphasis on support services that enhance the academic experience and success of international students.

This study also found several support services variables to be significant on students' overall experience with support services at their institution. Services provided by the International Office were the most influential, followed by support from student clubs and organizations, eating places and options on campus, student advisory services, and access to and availability of personal tutors. ISS offices can vary in organizational structure and range of services at institutions but most exist to aid international students in their educational and cultural transition to campus. These services often include orientation programs, immigration advising, assistance with academic and employment issues, and social and cultural programming. Despite the recent changes in immigration policies and compliance standards, recurring safety and security concerns, and increased political instability across nations worldwide, ISS offices have direct access to the international community and can play a vital role in improving the

experience of international students as well as furthering intercultural engagement for all at the university.

However, a point of consideration for administrators is that all too often, staff in ISS offices are forced to devote the majority of their time to administering US government regulations and maintaining compliance with visa requirements (Briggs & Ammigan, 2017). With limited time, funding and staffing, this unique domain of expertise must remain the top priority or the campus might judge them harshly. University administrators must support the ISS office so that it can show its excellence and build reputation for competence with its unique area of expertise in advising on and interpreting government regulations. Additionally, the ISS office can take an intentional approach at advancing campus internationalization through programming and outreach to explicit international points of contact. These key associations and entities can be educational, transformational, and important to the mission of helping bring global perspectives to students, staff, faculty, and community members.

While significant, campus eating options was rated by students with the lowest satisfaction score of all support services variables in Australia, UK, and US. This is not surprising since food plays such an important role in the acculturation process of adjusting to a new place but it might also be difficult for campuses to cater to the various individual needs of students. Indeed, findings from a recent study revealed that a majority of international students are usually dissatisfied with the taste, variety, and price of the food served on campus (Mohd-Ali et al., 2016). That said, some institutions have been proactive at “globalizing” their menus with international items throughout the week. Others have provided additional culinary training to their dining services staff so that different cuisines could be represented in their cafeterias for

instance. The ISS office could also work with dining services, local community restaurants, and ethnic stores to publicize their services and increase eating options around campus.

Other findings included high student satisfaction with chaplaincy and multi-faith services, which supports the need for greater collaboration between campus service units and these religious organizations so there is a better understanding of how they serve students in the community. International student experiences with the Finance Department was the most significant support services variable at UK institutions, which is an important factor to consider for staff in that department when they are assisting international students, who may encounter language and cultural barriers in understanding and handling billing and other financial issues. The Accommodation Office was the most significant variable for international students enrolled at US institutions. Finding appropriate accommodation at a reasonable cost in a new environment can be another stressful factor for international students, as indicated by Arambewela and Hall (2009). Hence, institutions must make sure that they communicate instructions about dormitory contracts and tenant responsibilities clearly to that audience. Having access to translators for students who might need assistance in understanding or communicating complex issues or, for instance, to translate official documents, may be a very helpful resource for support offices to have at their disposal when serving that community.

5.3 Policy Recommendations

In addition to the various implications discussed above, findings from this study also offer administrators and policy makers recommendations for introducing new institutional practices, guidelines, and interventions, or simply adjusting current ones using newly informed strategies. Six policy recommendations are discussed, namely Strategic Reinvestment, Partnerships and Collaborations, Programming and Outreach, Holistic Communication, Training

and Development, and Assessment and Benchmarking. Given that the original objective of this study was to investigate satisfaction with international student support services at US institutions, where the researcher's professional expertise also resides, the aforementioned recommendations are contextual and may be more pertinent to those operating at institutions in the US.

5.3.i Strategic Reinvestment

This research found that all dimensions of the international student experience (Arrival, Learning, Living, and Support Services) influenced institutional satisfaction and recommendation. It therefore supports the argument that the international student experience can be a driver for recruiting and retaining talented students, and for advancing an institution's diversity and internationalization efforts. Having international students on campus can also serve as indicators for developing global and intercultural competence of domestic students, faculty and staff via interactions in the classroom and engagement in other extra-curricular activities (Banjong & Olson, 2016; Shideh Hanassab, 2006; Lee & Rice, 2007). However, for these benefits to exist, institutions must be strategic in incorporating the student experience perspective at all levels of their operations, such as their service mission, faculty engagement, organizational leadership structure, and assessment priorities, so that adequate support services and interventions can be implemented to support such initiatives.

The concept of strategic reinvestment in higher education, which relates to setting aside a portion of tuition and other revenues towards overall academic and student support programs, has become a priority for some institutions as they develop their strategic and budget plans (Toner, 2018). However, reinvestment into international education or international student support is quite rare. As the competition to recruit talented international students in a shrinking

market share increases, institutions must intentionally funnel some of the funding obtained from tuition back into the student experience. This includes a range of services addressing the social, academic, cultural, and career needs of international students such as student advising and support resources, career exploration and guidance, navigating academic concepts and research, and internationalizing residential and dining services. Doing so requires cross-training student affairs and faculty to ensure that they can include the global perspective for students, whether local or international.

Steyn (2003) defines strategy, in general terms, as the thinking behind the operations and the positioning of values for future use. From an internationalization of higher education perspective, strategic planning is described as “a defining feature of all universities, encompassing organizational change, curriculum innovation, staff development and student mobility, for the purposes of achieving excellence in teaching and research” (Rudzki, 1995, p. 421). This definition involves resource planning and allocation, organizational structure to ensure effectiveness in functions and decision-making processes, and the role of faculty, staff, and students in designing operational procedures that support these institutional strategies. In developing a comprehensive internationalization plan, strategic planning needs to happen at several levels, both from a big picture and practical approach, including the defined purpose, priorities, frameworks, direction, and intended outcomes (de Wit, 1995).

Institutions must recognize that international students are a valuable educational and cultural resource that is too often underutilized and overlooked. International educators widely agree that bringing people of different cultural backgrounds into contact with each other can be educationally positive and life changing if done with the right structure. Building an inclusive community and a welcoming environment in which its members feel connected, safe, and

engaged can be a powerful instrument that impacts students' sense of belonging, experience, and success. If intercultural programming is important to a campus' diversity goals, it becomes a missed opportunity not to make the international student community engaged as a more actively utilized resource. Hence, institutions must be intentional at developing strategic partnerships with key units within the organization, such as admissions and recruitment, international student services, student affairs, academic departments, and alumni relations, in optimizing the experience of their international students on campus. Higher administration must also be committed to supporting designated service units through adequate staffing, funding, resources, training, and professional development opportunities so that they can in turn enable programs and services that enhance the international student experience.

The Culturally Engaging Campus Environments (CECE) model, derived from several qualitative and quantitative studies in higher education, examines the experiences and outcomes of diverse colleges students and measures the extent to which campus environments are culturally engaging (Museus, 2014). The model's indicators, listed in Table 5.1, are categorized in two groups: 1) Cultural relevance indicators, which focuses on the ways that campus environments are relevant to the cultural backgrounds and communities of diverse college students, and 2) Cultural responsiveness, which points to the ways in which campus environments respond to the norms and needs of diverse students. These indicators can be used as benchmarks for postsecondary institutions to assess the extent to which culturally engaging campus environments exist on their respective campuses; to identify where these environments can be improved; and to strategically develop plans for transforming environments to maximize success among their diverse student populations more effectively.

Table 5.1 The Culturally Engaging Campus Environments (CECE) indicators

Cultural Relevance		
Indicator 1	Cultural Familiarity	Campus spaces for undergraduates to connect with faculty, staff, and peers who understand their cultural backgrounds, identities, and experiences.
Indicator 2	Culturally Relevant Knowledge	Opportunities for students to learn about their own cultural.
Indicator 3	Cultural Community Service	Opportunities for students to give back to and positively transform their home communities.
Indicator 4	Meaningful Cross-Cultural Engagement	Programs and practices that facilitate educationally meaningful cross-cultural interactions among their students that focus on solving real social and political problems.
Indicator 5	Cultural Validation	Campus cultures that validate the cultural backgrounds, knowledge, and identities of diverse students.
Cultural Responsiveness		
Indicator 1	Collectivist Cultural Orientations	Campus cultures that emphasize a collectivist, rather than individualistic, cultural orientation that is characterized by teamwork and pursuit of mutual success.
Indicator 2	Humanized Educational Environments	Availability of opportunities for students to develop meaningful relationships with faculty and staff members who care about and are committed to their success.
Indicator 3	Proactive Philosophies	Proactive philosophies that lead faculty, administrators, and staff to proactively bring important information, opportunities, and support services to students, rather than waiting for students to seek them out on their own.
Indicator 4	Holistic Support	Students' access to at least one faculty or staff member that they are confident will provide the information they need, offer the help they seek, or connect them with the <u>information or support that they require.</u>

5.3.ii Partnerships and Collaborations

With the reach of institutions extending well beyond their local campuses into global communities, it has become essential for international education administrators to collaborate to a greater extent with academic affairs and student services personnel to not only to serve more international students but help all students develop global and intercultural competencies (American Council on Education, 2016). As universities and colleges continue to become increasingly interconnected through student mobility, exchange, experiential learning, and research, models of student affairs also must expand and adapt to new cultural audiences and contexts. Findings from this study confirm that various aspects of the student experience across

the entire institution are crucial for ensuring overall satisfaction and recommendation. On-campus housing, dining facilities, student organizations, and career and counseling services are not only regarded as universal elements of the collegiate experience but as a conscious effort to bring students together and contribute to define the educational mission of institutions as a global academic and social community (Ping, 1999). Working closely with student affairs professionals, for instance, is therefore critical in moving the internationalization of higher education from vision to reality in the US system of higher education.

Institutions must also welcome opportunities to collaborate on initiatives to reach a wider audience and be intentional at engaging a variety of campus and community volunteers to be involved in these programs. Designing a cohesive, cross-departmental plan and coordinating, more intentionally, with student affairs offices and other service units on campus, can address the needs of students more effectively (Roy et al., 2016). With great access to international students as a programming resource, an ISSS office can also play a helpful role for student affairs and other offices around the university when they develop their own programs for campus internationalization.

It can be difficult for cross-cultural engagement to occur when international students are perceived to stay within their comfort zones and cultural groups (Stahl, 2012). This is an obstacle to students integrating and making contact across cultures, which can be so important to the educational mission of a campus. A study from Baruch College on international student friendship experiences in the US found that more than one in three international students have no close American friends (Gareis, 2012). Moreover, the successful integration of international and domestic students is unlikely to occur just because the people are near each other. It is best achieved with staff whose mission it is to lead, plan and facilitate this initiative. The American

Council on Education's Leading Internationalization Report (2016) found that globally aware and culturally diverse staff who engage constructively with colleagues different from themselves and whose designated responsibilities are to seek out new global experiences can send a powerful signal to students that these qualities are valued in the campus community.

5.3.iii Programming and Outreach

Over the years, institutions hosting international students have had to recalibrate their campus resources to address the substantial educational and cultural adjustment needed by these students to be successful (Krisna Bista, 2013). International students are likely to experience more problems and take longer to adapt to local norms and customs than students who are originally from the US (Kaczmarek et al., 1994). These students are probably less exposed to available campus resources and programs and may not know how to find support that can help them cope and adjust to their new home in the US. Findings from this study show that the International Office (in the US as well as in all three countries combined) was the most significant support services variable within the support services dimension, indicating the importance of the programs and services provided by such offices on campus. Coincidentally, respondents demonstrated a low satisfaction rating with opportunities to make friends locally at their current institution, which might signal the need for support offices to host more programs that foster engagement and networking opportunities.

The recent introduction of immigration regulations, policies, and compliance standards by the US government, for instance, has undoubtedly created a high level of uncertainty and concern amongst international students studying abroad. With a potential impact on overall international education exchanges and student mobility, institutions are having to reiterate their commitment, dedication and support towards international engagement and mutual

understanding on their respective campuses (Choudaha, 2016). Offering programming and outreach support to international students during times of high stress can help them manage the many issues that they face, including language and cultural barriers associated with academic and social adjustment, as well as the emotional challenge often connected with the processes of acculturation. Through the implementation of culturally sensitive programming and interventions, effective outreach initiatives have proven to be successful by many in meeting the various needs of underserved and underrepresented university students (Nolan, Levy, & Constantine, 1996). Such programs can also help strengthen the message that these students are welcomed on their respective campuses.

Despite the recognized needs and intent to serve international students, a clear majority of the institutions struggle and must do more to allocate adequate resources and expertise needed to work with this diverse population. Supporting, including, and engaging international students with the larger campus community can add tremendous value to the institution's overall campus internationalization efforts. It is therefore imperative for institutions looking to attract and retain international students to reinforce their services and programming initiatives so they meet the needs of these students and, in turn, cultivate an inclusive climate on their campuses.

During their time on campus, international students are residing in, interacting with, and using resources from the local community. Opportunities for community engagement can lead to off campus friendships, better integration with the American culture, and business networking, and create a positive impact on academic, social and adjustment issues, and a more satisfying overall international student experience (Cormack, 1968; Fleischman, Lawley, & Raciti, 2010). NAFSA: Association of International Educators (n.d.) provides a dedicated set of resources on Campus and Community Programming suggesting that there is mutual benefit when community

residents are more engaged with the global diversity amongst them. It is important to ensure that international students are taking advantage of experiential learning, career development and internship opportunities available within their community and beyond during their stay on campus.

Table 5.2 lists examples of programs that an ISS office can host in collaboration with their campus stakeholders to support, engage, and involve international students. It is adapted from Briggs and Ammigan's (2017) model for international student programming, which was developed to address the needs of students and support the overall global engagement and campus internationalization efforts of the institution.

Table 5.2 Examples of collaborative programs for international students

	Programs	Partner Offices
To support academic success	US culture series; Tutoring services; Time management and study skills; Academic honesty and plagiarism; Working with your TA; Language support programs; Resume building; Navigating the library; Coping with culture shock; Managing stress; Dealing with expectations	Office of Academic Enrichment; TA Office; Writing Center; Tutoring Services; University Library; Office of the Ombudsman; Career Services; Counseling Center; Student Wellness; Graduate Office
To understand government regulations	Maintaining your legal status; Employment options; Finding an internship; Travel advisories; Tax compliance issues; Healthcare and insurance; Personal safety; Title IX workshops; Social Security number and driver's license	Office of General Counsel; Research Office; Student Health Services; Law and Tax Clinics Campus Police and Safety; Human Resources; Office of Equity and Inclusion
To promote international understanding	Weekly coffee hour; Ice cream socials; Essay contest; Welcome reception; Making friends across cultures; Residence Life programs; Intercultural communication workshops; Film series; Bowling nights; Global festivals; Karaoke night	Student Affairs, Residence Life and Housing; Multicultural Center; Recreational Services; Student Center; Student Organizations; Athletics; Various campus and community partner offices
To connect with the local community	Cultural excursions and field trips; Networking with community leaders; Holiday events and receptions; Tailgating party; Host family program; Speaker series	City Manager's Office; Host families; Office of Community Engagement and Service Learning; Rotary Club; Kiwanis Club

Lillyman and Bennett (2014) examined the experience of international students studying at UK universities and identified several ways in which institutions could develop and enhance a positive learning environment for their students and, at the same time, effectively engage faculty members and domestic students in the process. These influencers, which require institutional planning and support, include 1) a thorough understanding of how international students make their decision to study overseas, which is usually driven by educational quality, language acquisition, cultural experience, and career prospects; 2) pre-arrival communication with incoming students to share resources on visa application procedures, travel information, class registration, accommodation, and food options; 3) support upon arrival such airport pickup, welcome and orientation, and opportunities to network and connect with other students; and 4) services provided throughout students' stay on campus, such as peer and teacher support for academic achievement, programming to ensure social and cultural adaptation, counseling and wellness support, and career guidance and development.

5.3.iv Holistic Communication

Argenti, Howell, and Beck (2005) reiterate the need for intention, defining strategic communication as an integral communication approach that is aligned with the organization's overall strategy and one that enhances its positioning and supports its outreach function to key constituencies. Many organizations often use short-term, reactive approaches, which is not only nonstrategic in nature but may be inconsistent with or even impede its overall institutional communication strategy. Communications plans are communication strategy in action.

According to the Center for Community Health and Development at the University of Kansas (n.d.), communications plans follow the following eight step process: 1.) Identify the purpose of the communication; 2.) Identify the audience; 3.) Plan and design the message; 4.) Consider

available resources; 5.) Plan for obstacles and emergencies; 6.) Strategize how to connect with the media and others who can help spread your message 7.) Create an action plan; 8.) Decide how to evaluate and adjust the plan, based on feedback received.

Ammigan and Laws (2018) argue that the most impactful engagement model requires an accompanying, analytics driven communications strategy to support international students during their stay on campus. Moreover, with social media as one of the fastest growing influencing factor for international students in choosing an institution (Universities UK International, 2017), institutions must be intentional at developing a communication plan and establishing relevant assessment tools to effectively reach and gather feedback on the preferences and experience of international students. To ensure successful implementation of a communications strategy, ISS offices must develop communications plans throughout the year, also including details on learning goals and outcomes, staffing, timelines, budgets, and strategic points of collaboration. When developing a communications plan, it is also important for relevant offices to partner with expert communication and marketing units to leverage all its communications channels and achieve its short and long-term goals. This includes both in-person, print and digital communications, such as email and social media outreach. It is important that communications plans are crafted in coordination with stakeholder office staff.

As we learned from the findings of this study, international students often experience difficulties in developing friendships and connecting with both domestic and other international students on campus. This can disrupt their adjustment and integration to many aspects of the campus life, especially if they do not receive the social and cultural support they need from their institution. Having a better understanding of the communications preferences of international

students can support an institution's efforts in enriching engagement opportunities with the local campus community.

5.3.v Training and Development

In addition to having adequate programs and resources in place for fostering an inclusive climate amongst students on campus, it is important for an institution to also build intercultural competence among its diverse stakeholders including the ISS office, multicultural center, faculty, staff, and administrators (Choudaha, 2016; Peterson et al., 1999). Such offices can play a key role in working closely with other student affairs professionals and academic staff to lead this effort and provide the necessary intercultural training workshops and sessions that enhance communication skills and the ability to support, connect, and engage effectively with those who are different from us.

Institutions must also consider offering training and professional development opportunities to staff and faculty, aimed at understanding the experience of international students, and improving views of campus services for that community (Butt & Rehman, 2010; Prebble et al., 2004; Stokes, 2017). Such programs often occur in the form of intercultural communication training offered by the Human Resources department, Multicultural Center, or Faculty and Organizational Development. Training opportunities can also include student leaders and volunteers so they can share their experience directly with those who support them. First Year Experience classes, experiential learning opportunities, and intercultural sensitivity programs must also be made available to the student community.

Jackson and Holvino (1988) developed the Multicultural Organization Development (MCOOD) model to help organizations build more inclusive cultures based on the contributions and talents of those from diverse social and cultural groups. This includes strategies, policies,

services, and collaborative practices that can shape an organization, from a social justice and diversity perspective, and support all students, faculty, and staff from different cultural backgrounds, who might be experiencing the campus “through the intersections of their multiple group identities” (Jackson & Hardiman, 1994). One of the components of this process of change is based on the identification, training, and hiring of the change agents to manage the process and build connections and networks with the rest of the organization. In the context of supporting the international student experience on campuses, the staff of the ISS office, Multicultural Center, and Student Affairs department can play an important role as change agents if the right level of training and resources is provided by leadership.

5.3.vi Assessment and Benchmarking

This study strongly supports the importance for institutions to regularly assess the experience of their international students to ensure quality in the assistance and support services provided, in both academic and non-academic settings (Elliott & Shin, 2002). Yet, a major obstacle to providing international students with adequate support services is the absence of reliable and valid measures for assessing international student adjustment (Kaczmarek et al., 1994). The culture shock and adjustment issues faced by international students are often attributed to academic pressures, homesickness and loneliness, language difficulties, and differences in cultural norms and educational system and practices. In an increasingly competitive market to recruit talented international students and then retain them, it is critical for university administrators to be more aware of students’ needs and satisfaction with the different aspects of their experiences so that the necessary support and services can be allocated (Council for the Advancement of Standards in Higher Education, n.d.).

In the context of the classroom environment, it is important for academic departments to regularly assess how students are responding to their academic environment. This includes the assessment of the teaching and studies aspects of learning, such as the pedagogic quality of teaching, expertise of lecturers, course organization and grading criteria, and access to Teaching Assistants, career guidance, and tutoring services, as well as the physical infrastructure and social climate aspects such as library services, a multicultural learning environment, virtual learning technologies, and the quality of classrooms and labs. As this study finds, some of these factors related to teaching and studies were found to be statistically significant on students' overall satisfaction and recommendation of their institutions. Assessment tools must be designed with the right purpose and goals in mind so that policymakers and administrators can use responses to draw conclusions and initiate any necessary changes. Survey designs must also be culturally sensitive and appropriate for the intended respondents.

Findings from this study have also shown that satisfaction with various aspects of students' arrival, living and general support services could lead to a positive institutional experience. Student affairs units, such as the counseling center, health services, dining, and accommodation services, must work collaboratively with other departments on campus to assess and improve the experience of students. It is common for institutions to use a variety of assessment tools, some developed in-house and others provided by external companies, to regularly measure levels of development, competencies, engagement, needs, and expectations of their students. These assessment initiatives must not be carried out in silos and administrators must be intentional at using and sharing readily-available data across campus units in a strategic manner to better understand students' experiences. This also includes feedback from departmental surveys, focus groups, exit interviews, and research projects. Based on a data-

driven and analytics approach, universities can review their key performance indicators to set goals and targets and discuss cross-campus collaborations and resource allocation, to better support the experience of their international students.

5.4 Limitations and Future Research

This dissertation is believed to be the first empirical analysis of data from the International Student Barometer investigating the satisfaction of over 45,000 international students with various dimensions of student experience across three different countries. Although this represents a relatively large sample, the study has its limitations.

First, the findings are based on one single instrument which relies on self-reported data. Although the ISB is widely used, other surveys of international student experience might provide different results, especially those administered within an individual institution. Furthermore, it represents a snapshot in time and must be considered in terms of the changing nature of student expectations and increasing sophistication in the experience offered by higher education institutions to all students (including international) across the four dimensions studied here.

The reported findings were not necessarily meant to be generalizable in nature but rather to serve as a comparative baseline and indeed as a possible springboard for future research, one element of which could be to compare the data found here with other instruments or with other methods of data gathering. It must also be mentioned that the sample size of students from the US, as well as the number of participating institutions, were both relatively low compared those from Australia and the UK.

Even though many students were included, this study only considered undergraduate, degree-seeking students, overlooking those studying for credit in other countries. Erasmus

students, and other exchange students for instance, were not part of the sample. Others not included were those studying at postgraduate level or on English as a second language programs.

No personal or cultural factors were considered that may have had an impact on student experience. The researcher did not have access to responses for the open-ended questions, which also form part of the ISB, due to the nature of the confidentiality agreement with i-graduate. It is possible that these may have provided more context on response bias. It would certainly be interesting for future studies to engage with those questions, should permission be given to do so.

Data on academic achievement was not collected and made available for this study. It would be interesting to investigate the association between students' academic performance and satisfaction with their institution. Similarly, the level of personal happiness of students at the time of them taking the survey could relate or have an impact on how satisfied they are with their university experience.

Other areas for future research would be to take a larger sample size including data from other leading nations in student recruitment, or to expand the data by considering students beyond those at undergraduate level. A comparative perspective with other student satisfaction instruments, or a longitudinal study to assess the changing nature of student experience and expectations are all factors to consider for future research on the topic of international student satisfaction.

5.5 Conclusion

This study evaluated international student satisfaction with different dimensions of the university experience, namely their arrival, learning, living, and support services experiences, and the aspects within those dimensions which have the greatest influence on their overall experience and recommendation. Results from the International Student Barometer of over

45,000 degree-seeking, undergraduate international students at 96 institutions in Australia, the UK, and the US formed the basis of the study.

This research establishes a strong association between the four dimensions of experience of international students and their overall university experience and recommendation. In doing so, it supports the argument that the international student experience can play an important and strategic role in enhancing the recruitment and retention efforts of an institution. It can also serve as a driver and indicator for campus internationalization.

It is clear from this dissertation that the academic dimension of experience was the most influential aspect of overall student experience and institutional recommendation. It also suggests that institutions must consider placing greater emphasis on support services that enhance the learning experience and facilitating strategic collaborations between academic departments and support units. The implications from the findings led to a few recommendations for international educators, practitioners, administrators, and researchers, including the importance of strategic planning, partnerships and collaborations, programming and outreach, staff and faculty training and development, assessment and benchmarking, and a holistic communications masterplan in supporting the international student experience. In general terms, it offers the following:

- enhanced understanding of international student experience and satisfaction;
- support for institutions in interpreting their own results from international student experience surveys;
- help for campus support services in developing collaborative practices;
- support for institutional policies and practices and effective resource allocation for enhancing the international student experience;

- generation of interest for future research on international student experience, in particular, what matters to students and which services should be provided or enhanced;
- support for institutional recruitment and retention strategies, as well as the academic success of students.

These findings offer a starting point for researchers interested in further pursuit of these related topics.

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APPENDICES

Appendix A: Codebook

ITEM #	ITEM DESCRIPTION	ITEM SCALE
1	Survey Year	Year List
2	Institution Code	Institution List
3	Institution Country	1=Australia, 2=UK, 3=USA
4	Full-time or Part-time	Full-time / Part-time
5	Study Type	Study Type List
6	Study Level	Study Level List
7	Study Area	Study Area List
8	Study Stage	Study Stage List
9	Nationality	Country List
10	OVERALL SATISFACTION	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
11	Overall Satisfaction ARRIVAL	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
12	Arrival--Welcome/pickup	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
13	Arrival--Academic registration	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
14	Arrival--Getting to first night stay	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
15	Arrival--Formal welcome	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
16	Arrival--Institution orientation	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
17	Arrival--Finding way around	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
18	Arrival--Bank account setup	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
19	Arrival--Meeting academic staff	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
20	Arrival--Understanding course registration	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
21	Arrival--Condition of accommodation	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
22	Arrival--Internet access at accommodation	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
23	Arrival--The social activities	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
24	Arrival--Making friends from home country	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
25	Arrival--Making friends from this country	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
26	Arrival--Making friends from other countries	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
27	Arrival--Finance department	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
28	Arrival--Accommodation Office	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
29	Overall Satisfaction LEARNING	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
30	Learning--Quality of lectures	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
31	Learning--Expertise of lecturers	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
32	Learning--Teaching ability of lecturers	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
33	Learning--Academic content	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
34	Learning--Organisation of course	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
35	Learning--Level of research activity	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
36	Learning--Academic staff English command	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
37	Learning--Access to academic staff	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
38	Learning--Feedback on coursework	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
39	Learning--Explanation of marking	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
40	Learning--Assessment of coursework	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
41	Learning--Career guidance from academic staff	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
42	Learning--Leading to a good job	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
43	Learning--Opportunities for work during studies	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
44	Learning--Studying with people from other cultures	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
45	Learning--Improve English language skills	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
46	Learning--Size of the classes	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
47	Learning--Quality of classrooms	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
48	Learning--Quality of labs	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
49	Learning--Physical library facilities	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied

50	Learning--Online library facilities	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
51	Learning--Learning technology	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
52	Learning--Virtual Learning	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
53	Overall, Satisfaction LIVING	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
54	Living--Access to suitable accommodation	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
55	Living--Quality of accommodation	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
56	Living--Cost of accommodation	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
57	Living--Cost of living	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
58	Living--Opportunity to earn money while studying	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
59	Living--Financial support	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
60	Living--Internet access	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
61	Living--Making friends from my home country	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
62	Living--Making friends from this country	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
63	Living--Making friends from other countries	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
64	Living--Experience local culture	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
65	Living--Sports facilities	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
66	Living--Social facilities	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
67	Living--Social activities	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
68	Living--Networking	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
69	Living--Safety and security	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
70	Living--Surroundings outside institution	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
71	Living--Transportation around campus	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
72	Living--Transportation to other places	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
73	Living--Religious worship facilities	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
74	Living--Immigration and visa advice	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
75	Living--Eco-friendliness attitude	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
76	Living--Quality of campus buildings	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
77	Living--Quality of external campus environment	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
78	Overall, Satisfaction SUPPORT SERVICES	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
79	Support Knowledge--Finance department	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
80	Support Knowledge--International Office	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
81	Support Knowledge--IT and system support	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
82	Support Knowledge--Student Advisory Service	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
83	Support Knowledge--Counselling	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
84	Support Knowledge--Careers Advisory	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
85	Support Knowledge--Chaplaincy or multi-faith	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
86	Support Knowledge--Accommodation Office	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
87	Support Knowledge--Student Union	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
88	Support Knowledge--Health Centre	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
89	Support Knowledge--Residence Hall welfare	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
90	Support Knowledge--Campus eating places	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
91	Support Knowledge--Clubs/Societies	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
92	Support Knowledge--Disability Support	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
93	Support Knowledge--Personal Tutors	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
94	Support Knowledge--Language/Learning support	4=Used, 3=Aware but not used, 2=Don't know how to access, 1=Not relevant
95	Support--Finance department	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
96	Support--International Office	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
97	Support--IT and system support	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
98	Support--Student Advisory Service	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
99	Support--Counselling	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
100	Support--Careers Advisory	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
101	Support--Chaplaincy or multi-faith	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
102	Support--Accommodation Office	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
103	Support--Student Union	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
104	Support--Health Centre	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
105	Support--Residence Hall welfare	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied

106	Support--Campus eating places	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
107	Support--Clubs/Societies	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
108	Support--Disability Support	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
109	Support--Personal Tutors	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
110	Support--Language/Learning support	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
111	Support--Support staff English ability	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
112	Support--Support Staff Helpfulness	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
113	Institution Recommendation	5=Actively encourage, 4=If asked, would encourage, 3=Neither encourage nor discourage, 2=If asked, would discourage 1=Actively discourage
114	Year of birth	Year List
115	Gender	Female / Male
116	Own funds	1=Yes
117	Funds--Loan	1=Yes
118	Funds--Family	1=Yes
119	Funds--Employer	1=Yes
120	Funds--Employment while studying	1=Yes
121	Funds--Government/State funding	1=Yes
122	Funds--Scholarship/Grant	1=Yes
123	Funds--Other financial assistance	1=Yes
124	Funds--Other	1=Yes
125	Funds--Base number	1=Yes
126	Previous Education	Previous Education List
127	Language test before joining the institution	No / Yes - IELTS / Yes - TOEFL / Yes - Pearson (PTE) / Yes - Cambridge / Yes - Other
128	Prior study or work location	Country List
129	Prior stay in this country before studies	Up to 6 months / Up to 1 year / Up to 2 years / Up to 3 years / Up to 4 years / More than 4 years
130	Visa--Visa process time visa	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
131	Visa--Visa office staff service	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
132	Visa--Institution support with application	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied
133	Visa--Port of Entry immigration service	4=Very Satisfied, 3=Satisfied, 2=Dissatisfied, 1=Very Dissatisfied

Appendix B: ISB Scope and Deliverables



The global benchmark for the international student experience

The Overview

The International Student Barometer™ (ISB) tracks and compares the decision-making, expectations, perceptions and intentions of your international students from application to graduation. It enables you to make informed decisions to enhance the international student experience and drive successful recruitment and marketing strategies.

With feedback from over 2.9 million students worldwide across all student types, levels and years of study, the ISB is the leading benchmarking tool used to track the international student experience.

The Benefits

The ISB enables you to compare satisfaction levels of your international students and to identify specific areas of key importance to them. Most importantly, it will help you to identify whether your international students would recommend you to others.

This information will help you to:

- Evaluate and enhance the international student experience
- Develop targeted communications to prospective students
- Inform your recruitment and retention strategies
- Optimise resource allocation
- Provide strategic input to key investment decisions

The Scope

- Decision-making
- Application process
- Enquiry to acceptance
- Arrival and orientation
- The learning experience
- The living experience
- Support services
- Recommendation

The Process

- Simple process requiring minimal administration at your end
- Dedicated I-graduate Account Manager
- Online survey, personalised to reflect the terminology used in your institution
- Good practice guidelines to achieve the best response rates
- Targeted reminders to non-respondents (optional extra)
- Reporting online and in person

 Established in 2005	 In over 1400 Institutions	 Across 33 Countries	 Feedback from 2.9 million Students
-------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------

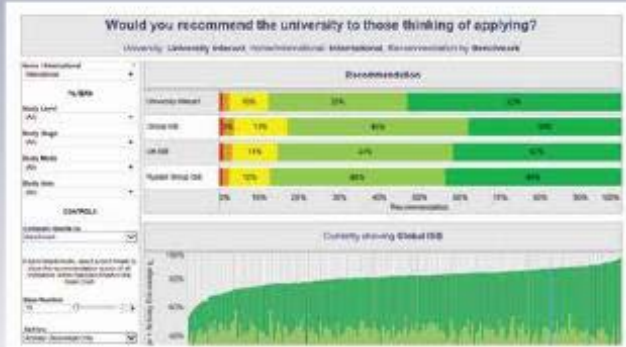
The International Graduate Insight Group (I-graduate) provides the global benchmark for the student experience. We deliver comparative insight to the education sector, helping institutions deliver a world-class student experience to enhance competitive advantage.



The Next Step...
Email info@i-graduate.org and we'll put you in touch with your nearest specialist.

Reporting

Interactive reporting is included for ALL staff - enabling the whole university to analyse and compare data across student cohorts. Your results are presented in interact, the latest generation of data visualisation. You can filter data by study area, department, demographics, study level, study mode (full or part time) and study type (student exchange, study abroad). See the separate information sheet for details, or contact us for a demo.



See whether your students would recommend you to those thinking of applying

Breakdowns
University: University Interest, Home/International, International, Custom Type, Learning Satisfaction (Teaching, Structure, Faculty)

Faculty	Percentage of students	SATISFIED	NOT SATISFIED
Learning Overall	88.11	89.16	88.16
Academic English	91.84	88.01	88.80
Support Overall	88.82	89.11	87.28
Structure	82.48	83.87	81.81
Faculty Overall	89.41	88.28	88.81
Quality Overall	88.18	88.21	88.91
Quality Overall	88.88	88.81	88.88

Compare faculties within your institution and gain an insight into student satisfaction with the learning experience

Benchmarking
University: University Interest, Home/International, International, Custom Type, Learning Satisfaction (Teaching, Structure, Faculty)

Category	University Interest	Global 100
Learning Overall	88.11	87.88
Academic English	91.84	88.88
Support Overall	88.82	87.88
Structure	82.48	88.88
Faculty Overall	89.41	88.88
Quality Overall	88.18	88.88
Quality Overall	88.88	88.88

See your institution compared against benchmarks



www.i-graduate.org

Appendix C: IRB Approval Letter



RESEARCH OFFICE

210 Hullahen Hall
University of Delaware
Newark, Delaware 19716-1551
Ph: 302/831-2136
Fax: 302/831-2828

DATE: April 6, 2017

TO: Ravichandran Ammigan
FROM: University of Delaware IRB

STUDY TITLE: [1053056-1] Assessing international student satisfaction with university living, learning, and general support services

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: April 5, 2017

REVIEW CATEGORY: Exemption category # (4)

Thank you for your submission of New Project materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Nicole Farnese-McFarlane at (302) 831-1119 or nicolefm@udel.edu. Please include your study title and reference number in all correspondence with this office.

Appendix D: Nationality Distribution of Respondents

Nationality	Australia		UK		US		Total
	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>% within Nationality</i>
Aaland Islands	5	0.0%	7	0.0%	0	0.0%	0.0%
Afghanistan	41	0.2%	12	0.1%	1	0.0%	0.1%
Albania	1	0.0%	19	0.1%	6	0.2%	0.1%
Algeria	3	0.0%	11	0.1%	0	0.0%	0.0%
American Samoa	1	0.0%	2	0.0%	1	0.0%	0.0%
Andorra	0	0.0%	2	0.0%	0	0.0%	0.0%
Angola	4	0.0%	56	0.3%	4	0.1%	0.1%
Anguilla	0	0.0%	2	0.0%	0	0.0%	0.0%
Antigua & Barbuda	2	0.0%	2	0.0%	0	0.0%	0.0%
Argentina	14	0.1%	5	0.0%	2	0.1%	0.0%
Armenia	1	0.0%	4	0.0%	1	0.0%	0.0%
Aruba	5	0.0%	0	0.0%	0	0.0%	0.0%
Australia	1	0.0%	158	0.7%	23	0.7%	0.4%
Austria	21	0.1%	153	0.7%	2	0.1%	0.4%
Azerbaijan	3	0.0%	27	0.1%	1	0.0%	0.1%
Bahamas	1	0.0%	4	0.0%	2	0.1%	0.0%
Bahrain	6	0.0%	93	0.4%	3	0.1%	0.2%
Bangladesh	177	0.8%	81	0.4%	9	0.3%	0.6%
Barbados	2	0.0%	13	0.1%	1	0.0%	0.0%
Belarus	1	0.0%	18	0.1%	1	0.0%	0.0%
Belgium	9	0.0%	139	0.6%	2	0.1%	0.3%
Benin	0	0.0%	1	0.0%	1	0.0%	0.0%
Bermuda	0	0.0%	10	0.0%	2	0.1%	0.0%
Bhutan	31	0.1%	2	0.0%	0	0.0%	0.1%
Bolivia	0	0.0%	2	0.0%	2	0.1%	0.0%
Bosnia & Herzegovina	8	0.0%	0	0.0%	0	0.0%	0.0%
Botswana	9	0.0%	37	0.2%	1	0.0%	0.1%
Brazil	190	0.9%	62	0.3%	39	1.2%	0.6%
British Virgin Islands	2	0.0%	43	0.2%	0	0.0%	0.1%
Brunei Darussalam	58	0.3%	127	0.6%	0	0.0%	0.4%
Bulgaria	3	0.0%	614	2.9%	5	0.2%	1.4%
Burkina Faso	0	0.0%	1	0.0%	1	0.0%	0.0%
Burundi	5	0.0%	2	0.0%	1	0.0%	0.0%
Cambodia	72	0.3%	4	0.0%	2	0.1%	0.2%
Cameroon	6	0.0%	15	0.1%	2	0.1%	0.1%
Canada	365	1.7%	350	1.6%	30	1.0%	1.6%

Cape Verde	0	0.0%	1	0.0%	4	0.1%	0.0%
Cayman Islands	0	0.0%	4	0.0%	1	0.0%	0.0%
Channel Islands	1	0.0%	28	0.1%	0	0.0%	0.1%
Chile	11	0.1%	11	0.1%	6	0.2%	0.1%
China	5066	24.0%	2151	10.0%	1217	38.7%	18.5%
Colombia	66	0.3%	27	0.1%	22	0.7%	0.3%
Congo (Dem. Rep.)	9	0.0%	12	0.1%	2	0.1%	0.1%
Costa Rica	2	0.0%	3	0.0%	3	0.1%	0.0%
Cote d'Ivoire	0	0.0%	3	0.0%	13	0.4%	0.0%
Croatia	10	0.0%	57	0.3%	2	0.1%	0.2%
Cuba	0	0.0%	1	0.0%	2	0.1%	0.0%
Cyprus	1	0.0%	601	2.8%	0	0.0%	1.3%
Czech Republic	9	0.0%	193	0.9%	3	0.1%	0.4%
Denmark	51	0.2%	133	0.6%	5	0.2%	0.4%
Djibouti	0	0.0%	3	0.0%	0	0.0%	0.0%
Dominica	0	0.0%	3	0.0%	0	0.0%	0.0%
Dominican Republic	2	0.0%	0	0.0%	12	0.4%	0.0%
Ecuador	76	0.4%	23	0.1%	11	0.4%	0.2%
Egypt	24	0.1%	93	0.4%	11	0.4%	0.3%
El Salvador	7	0.0%	2	0.0%	5	0.2%	0.0%
Eritrea	1	0.0%	9	0.0%	0	0.0%	0.0%
Estonia	0	0.0%	107	0.5%	0	0.0%	0.2%
Ethiopia	8	0.0%	7	0.0%	3	0.1%	0.0%
Faeroe Islands	1	0.0%	4	0.0%	0	0.0%	0.0%
Falkland Islands	0	0.0%	1	0.0%	0	0.0%	0.0%
Fiji	60	0.3%	5	0.0%	0	0.0%	0.1%
Finland	23	0.1%	192	0.9%	3	0.1%	0.5%
France	177	0.8%	787	3.7%	31	1.0%	2.2%
French Polynesia	2	0.0%	0	0.0%	0	0.0%	0.0%
Gambia	0	0.0%	17	0.1%	1	0.0%	0.0%
Georgia	3	0.0%	12	0.1%	5	0.2%	0.0%
Germany	234	1.1%	862	4.0%	35	1.1%	2.5%
Ghana	10	0.0%	58	0.3%	7	0.2%	0.2%
Gibraltar	0	0.0%	30	0.1%	0	0.0%	0.1%
Greece	12	0.1%	494	2.3%	3	0.1%	1.1%
Grenada	0	0.0%	1	0.0%	0	0.0%	0.0%
Guadeloupe	0	0.0%	1	0.0%	0	0.0%	0.0%
Guatemala	1	0.0%	2	0.0%	3	0.1%	0.0%
Guinea	0	0.0%	1	0.0%	1	0.0%	0.0%
Guyana	0	0.0%	4	0.0%	1	0.0%	0.0%

Haiti	0	0.0%	0	0.0%	3	0.1%	0.0%
Honduras	0	0.0%	1	0.0%	8	0.3%	0.0%
Hong Kong SAR	1205	5.7%	530	2.5%	40	1.3%	3.9%
Hungary	10	0.0%	234	1.1%	1	0.0%	0.5%
Iceland	6	0.0%	8	0.0%	2	0.1%	0.0%
India	976	4.6%	552	2.6%	211	6.7%	3.8%
Indonesia	670	3.2%	105	0.5%	72	2.3%	1.9%
Iran	88	0.4%	53	0.2%	8	0.3%	0.3%
Iraq	25	0.1%	22	0.1%	2	0.1%	0.1%
Ireland	31	0.1%	485	2.3%	9	0.3%	1.1%
Isle of Man	1	0.0%	26	0.1%	0	0.0%	0.1%
Israel	9	0.0%	15	0.1%	0	0.0%	0.1%
Italy	61	0.3%	823	3.8%	17	0.5%	2.0%
Jamaica	0	0.0%	21	0.1%	3	0.1%	0.1%
Japan	213	1.0%	139	0.6%	32	1.0%	0.8%
Jordan	4	0.0%	80	0.4%	5	0.2%	0.2%
Kazakhstan	9	0.0%	48	0.2%	3	0.1%	0.1%
Kenya	176	0.8%	104	0.5%	12	0.4%	0.6%
Kiribati	9	0.0%	0	0.0%	0	0.0%	0.0%
Kosovo	0	0.0%	5	0.0%	0	0.0%	0.0%
Kuwait	54	0.3%	70	0.3%	5	0.2%	0.3%
Kyrgyzstan	0	0.0%	3	0.0%	0	0.0%	0.0%
Laos	19	0.1%	3	0.0%	0	0.0%	0.0%
Latvia	4	0.0%	146	0.7%	0	0.0%	0.3%
Lebanon	18	0.1%	14	0.1%	3	0.1%	0.1%
Lesotho	0	0.0%	1	0.0%	0	0.0%	0.0%
Liberia	1	0.0%	0	0.0%	0	0.0%	0.0%
Libyan Arab Jamahiriya	0	0.0%	44	0.2%	0	0.0%	0.1%
Lithuania	3	0.0%	412	1.9%	0	0.0%	0.9%
Luxembourg	0	0.0%	39	0.2%	0	0.0%	0.1%
Macao	49	0.2%	10	0.0%	5	0.2%	0.1%
Macedonia	7	0.0%	6	0.0%	1	0.0%	0.0%
Madagascar	1	0.0%	2	0.0%	0	0.0%	0.0%
Malawi	4	0.0%	14	0.1%	1	0.0%	0.0%
Malaysia	2475	11.7%	1178	5.5%	169	5.4%	8.4%
Maldives	30	0.1%	15	0.1%	0	0.0%	0.1%
Mali	1	0.0%	5	0.0%	1	0.0%	0.0%
Malta	1	0.0%	11	0.1%	1	0.0%	0.0%
Mauritania	0	0.0%	1	0.0%	1	0.0%	0.0%
Mauritius	112	0.5%	95	0.4%	1	0.0%	0.5%

Mexico	54	0.3%	29	0.1%	46	1.5%	0.3%
Moldova	0	0.0%	7	0.0%	0	0.0%	0.0%
Monaco	0	0.0%	2	0.0%	0	0.0%	0.0%
Mongolia	25	0.1%	11	0.1%	3	0.1%	0.1%
Montenegro	1	0.0%	2	0.0%	0	0.0%	0.0%
Morocco	3	0.0%	20	0.1%	3	0.1%	0.1%
Mozambique	4	0.0%	6	0.0%	0	0.0%	0.0%
Myanmar	101	0.5%	29	0.1%	5	0.2%	0.3%
Namibia	7	0.0%	9	0.0%	0	0.0%	0.0%
Nauru	4	0.0%	0	0.0%	0	0.0%	0.0%
Nepal	700	3.3%	52	0.2%	5	0.2%	1.7%
Netherlands	62	0.3%	285	1.3%	10	0.3%	0.8%
Netherlands Antilles	0	0.0%	0	0.0%	2	0.1%	0.0%
New Caledonia	20	0.1%	0	0.0%	0	0.0%	0.0%
New Zealand	0	0.0%	36	0.2%	5	0.2%	0.1%
Nicaragua	0	0.0%	0	0.0%	4	0.1%	0.0%
Niger	0	0.0%	0	0.0%	1	0.0%	0.0%
Nigeria	86	0.4%	561	2.6%	28	0.9%	1.5%
Norway	224	1.1%	286	1.3%	6	0.2%	1.1%
Oman	45	0.2%	105	0.5%	38	1.2%	0.4%
Other	4	0.0%	8	0.0%	1	0.0%	0.0%
Pakistan	200	0.9%	219	1.0%	18	0.6%	1.0%
Palestine	6	0.0%	10	0.0%	0	0.0%	0.0%
Panama	1	0.0%	3	0.0%	3	0.1%	0.0%
Papua New Guinea	147	0.7%	0	0.0%	0	0.0%	0.3%
Paraguay	1	0.0%	0	0.0%	0	0.0%	0.0%
Peru	24	0.1%	8	0.0%	4	0.1%	0.1%
Philippines	626	3.0%	38	0.2%	2	0.1%	1.5%
Poland	21	0.1%	761	3.5%	0	0.0%	1.7%
Portugal	23	0.1%	368	1.7%	6	0.2%	0.9%
Puerto Rico	4	0.0%	2	0.0%	0	0.0%	0.0%
Qatar	5	0.0%	94	0.4%	3	0.1%	0.2%
Reunion	4	0.0%	0	0.0%	0	0.0%	0.0%
Romania	6	0.0%	708	3.3%	3	0.1%	1.6%
Russian Federation	68	0.3%	246	1.1%	24	0.8%	0.7%
Rwanda	2	0.0%	5	0.0%	33	1.1%	0.1%
Saint Helena	0	0.0%	1	0.0%	0	0.0%	0.0%
Saint Kitts & Nevis	0	0.0%	2	0.0%	0	0.0%	0.0%
Saint Lucia	0	0.0%	3	0.0%	0	0.0%	0.0%
St Vincent & TG	0	0.0%	3	0.0%	0	0.0%	0.0%

Samoa	18	0.1%	0	0.0%	0	0.0%	0.0%
San Marino	0	0.0%	1	0.0%	0	0.0%	0.0%
Saudi Arabia	157	0.7%	133	0.6%	164	5.2%	1.0%
Senegal	0	0.0%	2	0.0%	0	0.0%	0.0%
Serbia	9	0.0%	14	0.1%	4	0.1%	0.1%
Seychelles	5	0.0%	10	0.0%	0	0.0%	0.0%
Sierra Leone	4	0.0%	7	0.0%	0	0.0%	0.0%
Singapore	1324	6.3%	421	2.0%	19	0.6%	3.9%
Slovakia	4	0.0%	149	0.7%	0	0.0%	0.3%
Slovenia	3	0.0%	29	0.1%	0	0.0%	0.1%
Solomon Islands	22	0.1%	0	0.0%	0	0.0%	0.0%
Somalia	11	0.1%	7	0.0%	0	0.0%	0.0%
South Africa	116	0.5%	93	0.4%	2	0.1%	0.5%
South Korea	488	2.3%	245	1.1%	226	7.2%	2.1%
South Sudan	96	0.5%	0	0.0%	1	0.0%	0.2%
Spain	52	0.2%	605	2.8%	31	1.0%	1.5%
Sri Lanka	425	2.0%	76	0.4%	3	0.1%	1.1%
Sudan	7	0.0%	15	0.1%	1	0.0%	0.1%
Swaziland	2	0.0%	4	0.0%	0	0.0%	0.0%
Sweden	140	0.7%	279	1.3%	5	0.2%	0.9%
Switzerland	30	0.1%	85	0.4%	0	0.0%	0.3%
Syrian Arab Republic	6	0.0%	24	0.1%	5	0.2%	0.1%
Taiwan	224	1.1%	69	0.3%	47	1.5%	0.7%
Tajikistan	0	0.0%	1	0.0%	1	0.0%	0.0%
Tanzania	10	0.0%	38	0.2%	2	0.1%	0.1%
Thailand	136	0.6%	133	0.6%	28	0.9%	0.6%
Timor-Leste	17	0.1%	0	0.0%	0	0.0%	0.0%
Togo	0	0.0%	1	0.0%	0	0.0%	0.0%
Tonga	10	0.0%	1	0.0%	0	0.0%	0.0%
Trinidad and Tobago	3	0.0%	31	0.1%	2	0.1%	0.1%
Tunisia	1	0.0%	3	0.0%	1	0.0%	0.0%
Turkey	17	0.1%	75	0.3%	11	0.4%	0.2%
Turkmenistan	0	0.0%	3	0.0%	2	0.1%	0.0%
Turks & Caicos Islands	0	0.0%	3	0.0%	0	0.0%	0.0%
Tuvalu	5	0.0%	0	0.0%	0	0.0%	0.0%
Uganda	15	0.1%	35	0.2%	2	0.1%	0.1%
UK	386	1.8%	25	0.1%	27	0.9%	1.0%
Ukraine	15	0.1%	54	0.3%	7	0.2%	0.2%
United Arab Emirates	20	0.1%	44	0.2%	8	0.3%	0.2%
Uruguay	0	0.0%	1	0.0%	0	0.0%	0.0%

USA	749	3.5%	1111	5.2%	0	0.0%	4.1%
Uzbekistan	2	0.0%	8	0.0%	5	0.2%	0.0%
Vanuatu	7	0.0%	0	0.0%	0	0.0%	0.0%
Venezuela	13	0.1%	15	0.1%	39	1.2%	0.1%
Vietnam	748	3.5%	129	0.6%	68	2.2%	2.1%
Yemen	1	0.0%	14	0.1%	2	0.1%	0.0%
Zambia	35	0.2%	34	0.2%	0	0.0%	0.2%
Zimbabwe	120	0.6%	156	0.7%	2	0.1%	0.6%
Total	21117	100.0%	21443	100.0%	3141	100.0%	100.0%

Appendix E: Field of Study Distribution of Respondents

Field of Study	Australia		UK		US		Total
	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>n</i>	<i>% within Country</i>	<i>% within Fld. of Study</i>
Architecture, Building and Planning	638	3.0%	563	2.6%	44	1.4%	2.7%
Biological Sciences	1552	7.3%	2080	9.7%	182	5.8%	8.3%
Business and Administrative Studies	5374	25.4%	3575	16.7%	1319	42.0%	22.5%
Creative Arts and Design	544	2.6%	968	4.5%	100	3.2%	3.5%
Eastern, Asiatic, African, American and Australasian Languages, Literature, and related subjects	53	0.3%	167	0.8%	4	0.1%	0.5%
Education	356	1.7%	169	0.8%	38	1.2%	1.2%
Engineering	2952	14.0%	2465	11.5%	347	11.0%	12.6%
English Language Preparation Course	0	0.0%	0	0.0%	72	2.3%	0.2%
Historical and Philosophical studies	88	0.4%	614	2.9%	8	0.3%	1.6%
Joint Honors or multi-subject degree	124	0.6%	640	3.0%	6	0.2%	1.7%
Languages, Literature, and related subjects	40	0.2%	296	1.4%	9	0.3%	0.8%
Law	398	1.9%	1244	5.8%	12	0.4%	3.6%
Linguistics, Classics, and related subjects	73	0.3%	452	2.1%	6	0.2%	1.2%
Mass Communications and Documentation	512	2.4%	494	2.3%	91	2.9%	2.4%
Mathematical and Computer Sciences	450	2.1%	1484	6.9%	203	6.5%	4.7%
Medicine and Dentistry	927	4.4%	563	2.6%	34	1.1%	3.3%
Other	1767	8.4%	885	4.1%	261	8.3%	6.4%
Physical Sciences	260	1.2%	955	4.5%	33	1.1%	2.7%
Social studies	883	4.2%	2028	9.5%	146	4.6%	6.7%
Subjects allied to Medicine	2687	12.7%	980	4.6%	43	1.4%	8.1%
Technologies	690	3.3%	153	0.7%	92	2.9%	2.0%
Tourism and Hospitality	395	1.9%	397	1.9%	36	1.1%	1.8%
Veterinary Sciences, Agriculture, and related subjects	354	1.7%	271	1.3%	55	1.8%	1.5%
Total	21117	100.0%	21443	100.0%	3141	100.0%	100.0%

Appendix F: Publications Originating from this Dissertation

Publication 1: Improving the Student Experience: Learning from a Comparative Study of International Student Satisfaction

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Improving the Student Experience: Learning from a Comparative Study of International Student Satisfaction

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ABSTRACT

This article evaluates the degree to which international students are satisfied with different dimensions of their university experience, namely their arrival, living, learning, and support service experiences. Using quantitative survey research methods based on data from the International Student Barometer (ISB) (i-graduate, 2014), the study evaluates the experience of over 45,000 degree-seeking, undergraduate international students at 96 different institutions in Australia, the UK, and the US. Multiple regression analyses indicated that all four dimensions of satisfaction were positively associated with students' overall university experience, and the article reveals which of the four is the most influential aspect. To the authors' knowledge, this study represents the first time that a comparative meta-analysis of ISB data across institutions in the three chosen countries has been undertaken. Key implications are discussed for how university administrators, practitioners, and researchers might best allocate resources to support and enhance the experience of international students, leading to more effective institutional recruitment and retention strategies. The study also offers a baseline for future research on international student satisfaction.

Keywords: international student experience; international student satisfaction; international student services; student satisfaction surveys

INTRODUCTION

International students are an important source of diversity at institutions of higher education as they bring with them new perspectives and help cultivate intercultural awareness and engagement

among campus and community members (Lee & Rice, 2007). Although several authors argue that institutions fail to capitalize on this (e.g., Leask, 2010; Montgomery, 2010; Volet & Ang, 1998), their presence on campus can create more opportunities for all students to increase their level of interaction across cultures, which can in turn lead to enhanced global competencies, leadership skills, and intellectual development (Luo & Jamieson-Drake, 2013). In this sense they can support the broader internationalization efforts of institutions of higher education, defined by de Wit et al. (2015, p. 29) as “the intentional process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post- secondary education, in order to enhance the quality of education and research for all students and staff, and to make a meaningful contribution to society.”

One of the guiding research questions for this study was to evaluate the level of satisfaction with International Student Support offices at institutions in the United States. This was due to record-high numbers of international students over the last decade and the urgent requirement to effectively support the needs of this diverse population. The scope was extended to include a broader perspective from Australia and the UK, countries which have been successful at operationalizing innovative models and best practices for supporting international students.

International students are integral to institutional and national reputation, cultural enrichment, and economic gain of host countries and can be a driver for campus internationalization (Forbes-Mewett, 2016). In purely economic terms, a recent study for the UK’s Higher Education Policy Institute and Kaplan International (Higher Education Policy Institute (HEPI), 2018) found that the benefits of international students to the UK are ten times greater than the costs. The role of international students in the context of higher education internationalization, however, is more than just increasing numbers and meeting the financial goals of institutions. Wider societal benefits arising from student mobility include preparation for skilled migration, addressing capacity building or skills shortages in either the home or the host country, and soft power support for closer ties between nations (Mellors-Bourne et al., 2013).

Nevertheless, in this article we focus on institutions themselves, and seek to highlight the different dimensions of experience with which students are most and least satisfied, using results from a large global survey, the International Student Barometer (i-graduate, 2014), along with the aspects within those dimensions which have greatest influence on overall student satisfaction.

REVIEW OF LITERATURE

International Student Numbers

Globally, the number of students enrolled in tertiary education outside their country of citizenship increased more than three times, from 1.3 million in 1990 to nearly 5 million in 2015 (Organisation for Economic Co-operation and Development, 2015). The US, UK and Australia attract the largest number of international students from around the world and have been leaders in developing successful international recruitment strategies and practices, supported by attention to the student experience. According to the Institute of International Education (2017), the number of international students enrolled in US higher education in 2016 increased by 7.1% from the previous year, to over a million accounting for an increase of 85% over just a decade ago. There were

496,000 international students studying in the UK, the second largest host of international students after the US, and over 292,000 international students in Australian higher education in 2015 (Institute of International Education, 2017). It remains critical therefore for universities to ensure that international students receive the support they need so they can have a positive experience, be academically successful, and become fully engaged members of the community, just as is the case for domestic students. With rising numbers, the responsibility of fostering a welcoming campus environment and maintaining quality may come under pressure. Indeed Choudaha & Hu (n.d.) have argued that a majority of institutions, particularly in the US, still struggle to provide adequate resources that meet the expectations and experience of their high-paying international students.

Coping with a new academic setting and environment can be challenging for all students, particularly those from diverse geographical, societal or cultural backgrounds, which may include international students (Jones, 2017). Adapting to a different society, culture and often language, away from family and friends, can make the university experience particularly stressful for international students (Bista & Foster, 2016; Perrucci & Hu, 1995). They not only have to adjust to new academic culture, program requirements and participation styles, but may also have to get accustomed to alternative social and cultural norms such as communication styles, eating options, living arrangements, and making new friends. The continued growth in numbers has challenged many universities to focus not only on academic aspects of the student experience but also on services and other matters related to their stay and general comfort (Kelo, Rogers, & Rumbley, 2010). In countries with well-established international recruitment, there is a recognition that providing adequate support services and resources for international students can contribute to a positive experience and serve as a key factor in attracting and retaining other international students. Improving the international student experience, is thus critical to remaining competitive in the global student market (Baranova, Morrison, & Mutton, 2011).

International Student Experience

Several factors can directly influence experience during a program of study. Jones (2017) identifies four interrelated aspects that could have a bearing on student experience in the academic, living, and social domains. These are personal history, family context, national context and institutional nature and location, including institutional values and support services. Archer, Jones, and Davison (2010) offer recommendations on improving international student experience at different stages of their program, including application and arrival, cultural and social integration, accommodation and living, work experience and employability. They also affirm the need for better communication, coordination of services, appropriate use of technology, flexibility, and management of expectations.

Nyland, Forbes-Mewett & Härtel (2013) suggest that the commercialization of international education could have a direct impact on the experience of international students if not properly governed. They identify three main challenges that international students in Australia commonly face: 1) serious financial difficulties leading to anxiety, stress, poor academic performance, and adjustment and health issues, due to a misrepresentation of the cost of living by recruiters; 2) limited assistance by support offices in helping students find affordable housing options in lieu of expensive on-campus housing; 3) lack of support and infrastructure to address personal safety and security concerns on campus and in the community.

In a study at the University of Derby, Baranova, Morrison, & Mutton (2011) found that the main factors contributing to a 32% improvement in student experience in just one year were the quality of information and media channels used, greater access to online enrollment options, additional customer service training for service staff, a new self-service system for ID collection, and a revamped welcome week program focusing on student transition and acculturation to their new campus environment.

International Student Satisfaction

Wiers-Jenssen, Stensaker and Groggaard (2002, p. 185) define student satisfaction as students' assessment of the services provided by universities and colleges, including the quality of teaching and academic services, support facilities, physical infrastructure, and social climate, among other factors. It is a continually changing construct and a dynamic process that requires clear and effective action as a result of student feedback (Elliott & Shin, 2002). Student satisfaction represents subjective experience during study and perceived value of the educational experience (Astin, 1993). According to Perez-Encinas & Ammigan, (2016), institutions that actively surveyed their international students, using either in-house surveys or third-party instruments, found the feedback to be effective in improving customer service, student advising, programming and outreach and educational training.

In recent years, international student satisfaction data has been used as a way to influence campus change and strengthen support services for this community. Yu, Isensee, & Kappler (2016) explored how data from the International Student Barometer (ISB) (i-graduate, 2014) could be used collaboratively to drive change and enhance campus internationalisation within the University of Minnesota. The authors found that, information overload and a busy schedule during orientation, limited airport pickup services, and a lack of short term accommodation options affected student satisfaction with their arrival experience. In terms of their learning environment, international students indicated that it was highly rewarding to be involved in diverse learning activities and regular scholarly exchanges with faculty and other classmates, which they believe led to new learning opportunities, cross-cultural perspectives, and intercultural friendships. The study also found that students struggled to develop friendships with both local and other international students, and often experienced a disconnect with the wider campus community outside the classroom (ibid 2016).

In investigating the relationship between student expectations and student satisfaction, Appleton-Knapp and Krentler (2006) found that those whose expectations of the educational experience were exceeded were more satisfied with their learning environment than students whose experience did not meet their expectations. Hence, having a sound understanding of the factors affecting expectations and how they influence student satisfaction is critical for higher education practitioners and administrators.

Support for International Students

While the structure and organization of support services for international students can vary greatly in function, role, and reporting line, universities in the US, UK, and Australia commonly have dedicated offices designed to support students in their academic, cultural and social transition to

campus. These offices usually provide a wide range of services from advising on immigration compliance, academic, employment, financial, and personal issues to hosting social and cultural programs that help with the adaptation and acculturation process (Council for the Advancement of Standards in Higher Education, n.d.). However, the American Council on Education (n.d.) notes that international student retention relates to campus-wide experiences, so collaboration is needed between student affairs and services personnel, career and counseling centers, residence and housing departments, dining facilities, multicultural centers as well as with academic staff and professional administrators within faculties to address the needs of international students across the university as a whole (Jones, 2013) and advocate for additional resources whenever necessary.

METHODOLOGY

In the context of the available literature, some of which has been reviewed here, this study examines the level of satisfaction of degree-seeking, undergraduate international students with their experience at institutions of higher education in Australia, the UK and the US. Specifically, it investigates arrival, living, learning, and support service experiences and their influence on student satisfaction with their institutional experience overall. We have chosen to limit our focus to these three countries because a) the US, UK, and Australia were the top English-speaking study destinations globally in 2016, hosting the most international students, and particularly undergraduate students (Institute of International Education, 2016); b), this offers an already large sample size of over 45,000 student responses from nearly 100 institutions, allowing inferences for other institutional contexts; c) while there is a robust literature base on international student mobility and experience in these three countries, none provide a detailed comparative perspective on student experiences with arrival, living, learning, and support services and their impact on overall university satisfaction.

Instrument

The instrument used in this study was the International Student Barometer (ISB), originally developed by i-graduate International Insight Company in 2005 (i-graduate, 2014). As the most widely used benchmarking tool for tracking the international student experience globally, the ISB has gathered feedback from more than 3 million students across all student types, levels and years of study (i-graduate, 2014). Since its inception, the ISB has been periodically tested for validity and reliability and, as argued by Brett (2013), has been refined through over 14 cycles as an industry standard for understanding international student satisfaction at institutions across the world. The ISB uses a 4-point Likert scale to rate degrees of satisfaction (1=very dissatisfied, 2=dissatisfied, 3=satisfied, and 4=very satisfied). Confidential information is fed back to participating institutions, giving them a view on different elements in their own institutional performance, but also allowing them to compare with national and international benchmarks. However, to our knowledge, this study represents the first time that a comparative meta-analysis of ISB data across institutions in the three chosen countries has been undertaken.

Respondents

The respondents were 45,701 international undergraduate students from 96 institutions in Australia, the UK and the US. 46.9% (n=21,443) were from the UK, 46.2% (n=21,117) were from

Australia, and 6.9% (n=3,141) were from the US. 90% of all participants were 25 years old or younger. 58.1% were female, 41.8% were male, and 0.1% identified themselves as Transgender FTM, Non-binary/gender fluid/genderqueer, or Indeterminate/Intersex/Unspecified. Respondents held 204 different nationalities from countries, nation-states, and sovereign territories around the world. 54.1% of all students were from Asia, with 18.5% from China. International students in this study represented 23 different disciplines at the time they took the survey. A majority of them were studying Business & Administrative Studies (22.5%). 37.7% of respondents reported that they were studying in a year other than their first or last year. 67.4% of all international students reported that they were financially sponsored by family funds to pay for their education. Of the 96 participating institutions in the survey, 43.8% (n=42) were from the UK, 35.4% (n=34) were from Australia, and 20.8% (n=20) were from the US.

Procedure and data analysis

The annual ISB questionnaire, was disseminated in Autumn/Fall 2016 to all international students at participating institutions in Australia, the UK and the US. Using a single stage sampling procedure, students were invited to take part in the online survey via email. Based on a confidentiality agreement between the researchers and i-graduate, responses to corresponding survey items and non-identifiable student and institutional characteristics were made available for analysis.¹

104 ISB survey items were selected to investigate international student satisfaction in four main institutional dimensions, namely arrival, learning, living, and support services. The arrival category focused on students' first impressions and experience of arrival on campus. Questions included welcome events and airport pick up services, orientation programs and academic registration, setting up a bank account, and getting around campus and the local community. The learning section looked at the university's academic setting. Questions included the content and quality of lectures, academic expertise and teaching quality, level of research activity, and access to and feedback from academic staff. The third category comprised questions around the living experience of students such as the cost and quality of accommodation, campus safety and security, internet access, and opportunities to make friends with local and other international students. The last section focused on support services and resources provided by university units such as the international office, finance department, career services, health and counseling centers, as well as chaplaincy and multi-faith provision. There was a set of demographic questions used for categorizing and comparing groups of students.

This pre-existing data was imported into IBM's SPSS statistics software for quantitative analysis. The data was analyzed using both descriptive statistics, in the form of frequency distributions, means, percentages, and inferential statistics, including Analysis of Variance (ANOVA) and multiple regression analyses.

FINDINGS

Results from this study are organized into three main sections. The first includes Mean satisfaction scores for overall university experience, as well as for variables within each dimension of

experience. Sections two and three include various statistical relationships among satisfaction variables and reveal which are most influential in terms of the overall student experience.

How satisfied are students with their University Experience?

The analysis of data showed that international students were generally satisfied with their overall experience at universities in all three countries. According to Mean satisfaction scores (Table 1), students were most satisfied with their arrival experience followed by living, learning and finally their experience with support services.

Table 1. US, UK, Australia combined - Satisfaction with overall institutional experience
1=very dissatisfied, 2=dissatisfied, 3=satisfied, and 4=very satisfied.

	N	Mean	SD
Overall satisfaction with all aspects of institution	45701	3.15	0.659
Overall satisfaction with arrival experience	15366	3.13	0.615
Overall satisfaction with learning experience	43793	3.06	0.621
Overall satisfaction with living experience	39663	3.07	0.632
Overall satisfaction with support services	36210	3.02	0.557

Table 2 indicates the comparative mean scores of satisfaction with the overall institutional experience as well as within each dimension of experience in each of the three countries. Satisfaction with the arrival experience was the most highly rated dimension, and support services had the lowest rating in each of the three countries. At institutions in the UK, respondents showed a higher level of satisfaction with their overall experience than those in the US and Australia. ANOVA models were applied to compare the levels of satisfaction of international students at institutions across Australia, the UK and the US. There was a statistically significant difference between the Means of satisfaction of overall university experience as well as within each dimension of experience.

Table 2. US, UK, Australia compared - Mean scores of satisfaction with institutional experience

Dimensions of satisfaction	Australia			UK			USA		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
All aspects of institution	21117	3.09	0.625	21443	3.21	0.679	3141	3.13	0.697
Overall Arrival	6366	3.11	0.578	7911	3.15	0.64	1089	3.11	0.632
Overall Learning	20309	3.01	0.601	20517	3.1	0.637	2967	3.1	0.616
Overall Living	17834	3.04	0.598	19070	3.1	0.662	2759	3.02	0.61
Overall Support Services	16211	2.99	0.548	17548	3.04	0.569	2451	3	0.523

Table 3 compares the aspects within each dimension of experience which had the highest and lowest satisfaction levels overall, while Table 4 breaks these figures down by country.

Satisfaction with Arrival Experience

Table 3 shows that international students were most satisfied with the formal welcome provided by their institution and least satisfied with the ability to make friends with local students. Table 4 indicates that at Australian institutions, respondents were most satisfied with their experience setting up a bank account and least satisfied with the ability to make friends with local students upon arrival. At UK institutions, respondents were most satisfied with making friends from other countries and least satisfied with the ability to set up their bank account. At US institutions, respondents were most satisfied with meeting their academic staff, and least satisfied with the opportunity to make friends with local students.

Table 3. US, UK, Australia combined – aspects of highest and lowest satisfaction across the four dimensions in all three countries

Selected aspects of satisfaction	N	Mean	SD
Arrival Experience			
Formal welcome	14124	3.18	0.658
Meeting academic staff	14324	3.18	0.639
Accommodation Office	3836	3.18	0.672
Making friends from this country	13032	2.99	0.795
Learning Experience			
Academic staff English command	39601	3.33	0.67
Online library facilities	38389	3.31	0.661
Expertise of lecturers	39912	3.3	0.618
Career guidance from academic staff	34597	2.92	0.757
Opportunities for work during studies	34524	2.91	0.815
Living Experience			
Safety and security	38073	3.26	0.666
Quality of external campus environment	37733	3.25	0.628
Surroundings outside institution	37933	3.23	0.642
Making friends from this country	37555	2.97	0.805
Networking	35729	2.94	0.718
Cost of living	37109	2.71	0.741
Opportunity to earn money while studying	30787	2.63	0.819
Cost of accommodation	31334	2.62	0.816
Financial support	29915	2.56	0.867
Support Services Experience			
Chaplaincy or multi-faith	2956	3.35	0.624
Personal Tutors	12268	3.33	0.66
Residence Hall welfare	5827	3.3	0.642
Campus eating places	25157	3.06	0.714

Satisfaction with Learning Experience

Table 3 shows that international students were most satisfied with academic staff command of English, and least satisfied with finding work opportunities in their learning environment. From Table 4 we see that at Australian institutions, respondents were most satisfied with online library facilities while, in the UK and the US, greatest satisfaction was with the English command of academic staff. In all three countries, respondents were the least satisfied with finding work opportunities during their studies.

Table 4. US, UK and Australia compared - dimensions of highest and lowest satisfaction in each country

Australian Institutions	<i>Highest Satisfaction</i>	<i>M</i>	<i>SD</i>	<i>Lowest Satisfaction</i>	<i>M</i>	<i>SD</i>
Arrival Experience	Setting up a Bank A/C	3.17	0.67	Making Friends (Local)	2.86	0.79
Learning Experience	Online Library Facilities	3.27	0.65	Finding Work during Studies	2.83	0.80
Living Experience	Safety and Security	3.2	0.67	Financial Support	2.54	0.84
Support Services	Chaplaincy/Multi-faith	3.34	0.61	Campus Eating Options	3.05	0.69
UK Institutions	<i>Highest Satisfaction</i>	<i>M</i>	<i>SD</i>	<i>Lowest Satisfaction</i>	<i>M</i>	<i>SD</i>
Arrival Experience	Making Friends (Int'l)	3.27	0.67	Setting up a Bank A/C	2.87	0.84
Learning Experience	Academic Staff English	3.41	0.66	Finding Work during Studies	2.97	0.82
Living Experience	Safety and Security	3.33	0.65	Financial Support	2.56	0.89
Support Services	Chaplaincy/Multi-faith	3.38	0.63	Campus Eating Options	3.08	0.72
US Institutions	<i>Highest Satisfaction</i>	<i>M</i>	<i>SD</i>	<i>Lowest Satisfaction</i>	<i>M</i>	<i>SD</i>
Arrival Experience	Meeting Academic Staff	3.24	0.67	Making Friends (Local)	3	0.76
Learning Experience	Academic Staff English	3.32	0.63	Finding Work during Studies*	3.05	0.76
Living Experience	Sports Facilities	3.27	0.66	Cost of Accommodation*	2.6	0.82
Support Services	Student Union Services	3.34	0.56	Campus Eating Options*	2.98	0.77

Satisfaction with Living Experience

At institutions in all three countries, Table 3 shows that international students were most satisfied with the sense of safety and security at their institution, and least satisfied with the availability of financial support. As indicated by Table 4, respondents were most satisfied with safety and security on campus in both the UK and Australia, and least satisfied with financial support. In the US they were most satisfied with sports facilities on campus and least satisfied with the cost of accommodation.

Satisfaction with Support Services

As we see from Table 3, at institutions in all three countries, students were most satisfied with their institution's provision of chaplaincy or multi-faith resources, and least satisfied with services provided by campus eating places. Table 4 shows that respondents were most satisfied with the provision of chaplaincy or multi-faith services in Australia and in the UK. At US institutions, respondents were most satisfied with the student union services. International students were the least satisfied with campus eating options in all three host countries.

Which aspects of student experience have the most and least significant influence within each of the four dimensions of satisfaction?

Within each of the four dimensions, an analysis was undertaken of those aspects having the most and least influence on that particular dimension of international student experience. Table 5 provides a combined and comparative regression analysis, both within and across countries.

Arrival Experience

Across all institutions, international students' experience with welcome and airport pickup and first night stay had significant impact on their satisfaction with their overall arrival experience. Of these two, the first night experience had greatest influence, followed by being welcomed and picked up from the airport. At Australian institutions, no aspects of arrival had more or less significance in terms of the overall arrival experience. At institutions in the UK, the first night stay was the only aspect to have a significant impact on overall arrival experience, while at US institutions, satisfaction with airport pickup and welcome was the only aspect with significant influence.

Table 5. US, UK, Australia combined and compared – regression analysis showing the aspects with the most and least significant influence within each of the four dimensions of satisfaction

All Institutions	<i>Most Significant</i>	β	t	<i>Least Significant</i>	β	t
Arrival Experience	First Night Stay*	0.23	4.14	Welcome/Airport Pickup*	0.17	4.14
Learning Experience	Quality of Lectures*	0.15	15.19	Explanation of Marking*	0.03	3.15
Living Experience	Quality of Accommodation*	0.18	12.17	Safety and Security*	0.04	3.13
Support Services	International Office*	0.04	4.99	Campus Eating Options*	0.02	2.75
Australian Institutions	<i>Most Significant</i>	β	t	<i>Least Significant</i>	β	t
Arrival Experience	***			***		
Learning Experience	Quality of Lectures*	0.17	13.21	Improve English Language*	0.03	2.87
Living Experience	Quality of Accommodation*	0.18	12.17	Safety and Security*	0.04	3.13
Support Services	International Office*	0.05	5.73	Campus Eating Options**	0.02	2.78

UK Institutions		<i>Most Significant</i>	β	t	<i>Least Significant</i>	β	t
Arrival Experience	First Night Stay*		0.25	3.61	***		
Learning Experience	Quality of Lectures*		0.08	4.37	Lecturers Teaching Ability**	0.04	2.33
Living Experience	Quality of Accommodation*		0.24	15.78	Internet Access**	0.03	2.78
Support Services	Campus Eating Options*		0.02	4.25	Finance Department*	0.01	3.50
US Institutions		<i>Most Significant</i>	β	t	<i>Least Significant</i>	β	t
Arrival Experience	Welcome/Airport Pickup*		0.47	4.40	***		
Learning Experience	Lecturers Expertise*		0.17	4.63	Physical Library Facilities**	0.09	2.69
Living Experience	Quality of Accommodation*		0.29	10.06	***		
Support Services	International Office*		0.07	3.24	***		

*Significant at $p < .001$. **Significant at $p < .05$. ***No variable (or no other variable) found to be significant.

Learning Experience

Within the learning experience dimension, the aspects which significantly impacted the learning experience overall were: quality of lectures; expertise of lecturers; teaching ability of lecturers; academic content; organization of course; explanation of marking; learning that might lead to a good job; and learning that improves English language skills. Of those aspects, the quality of lectures had the greatest influence. Explanation of marking and grades for their class had the least impact. At Australian institutions, the quality of lectures had the most impact on satisfaction with the learning experience, and learning that improved English language skills had the least impact. Similarly, at UK institutions, the quality of lectures had the most impact but the teaching ability of lecturers had the least impact on students' learning experience. At US institutions, the expertise of lecturers was found to have the most, while the physical library facilities had the least impact on their learning experience.

Living Experience

Aspects that were found to significantly impact students' overall living experience were: access to suitable accommodation; quality of accommodation; and safety and security. Quality of accommodation influenced overall living experience the most, while safety and security had the least impact. Quality of accommodation had the most impact on satisfaction with the living experience at institutions in all three countries. Least impactful was safety and security in Australia, and internet access in the UK. Quality of accommodation was the only variable that had a significant impact on overall living experience in the US.

Support Services

The aspects with significant impact on the experience of support services were: services provided by the International Office; campus eating places; and clubs and societies. Of those aspects,

International Office services had the most influence, and campus eating places the least. At Australian institutions, International Office services had the most, and campus eating places the least impact on the support services experience. In contrast at UK institutions, campus eating places, had the most impact, and satisfaction with the services from the Finance Department and personal tutors were the least influential. At US institutions, satisfaction with International Office services was the only significant aspect.

Which dimensions of international student experience influence overall satisfaction with their university?

By running multiple regression analyses, all four dimensions of satisfaction (arrival, learning, living, and support services) were found to have a significant positive impact on international students’ overall university experience, as indicated in Table 6. However, we were curious to find which of the four dimensions was the most influential.

The authors of this article have themselves been international students, have worked in both collaborative and competitive, marketised higher education and international recruitment, and been involved for many years with students studying outside their country of birth. Therefore we were delighted when the findings unambiguously demonstrated that, of the four dimensions, the greatest influence on overall international student satisfaction with their university was the learning experience.

Meanwhile in contrast, and counter to the original purpose for beginning this study, satisfaction with support services were shown to have the least impact on students’ rating of their overall university experience.

Table 6. US, UK, Australia combined - regression analysis showing which of four dimensions have greatest influence on overall institutional satisfaction

Model	β	<i>t</i>	<i>Sig.(p)</i>
Overall Arrival	0.149	15.385	.000
Overall Learning	0.302	30.601	.000
Overall Living	0.14	14.686	.000
Overall Support Services	0.124	11.031	.000

The same results were obtained with an analysis by country. Table 7 provides a comparative regression analysis of satisfaction for each of the four dimensions with the overall institutional experience. Once again the findings are clear: satisfaction with the learning experience had the most impact on overall satisfaction at institutions in Australia, the UK, and the US. Satisfaction with support services had the least impact in all cases.

Table 7. US, UK, Australia compared - regression analysis showing which of the four dimensions have greatest influence on overall institutional satisfaction for international students in each country

Model	Australia		UK		USA	
	β	t	β	t	β	t
Overall Arrival*	0.144	9.662	0.147	11.021	0.187	4.591
Overall Learning*	0.345	24.068	0.264	19.026	0.318	6.924
Overall Living*	0.116	8.031	0.151	11.552	0.151	3.553
Overall Support Services**	0.12	7.396	0.132	8.289	0.038	0.715

* Significant at $p < .001$. **Significant at $p < .05$.

DISCUSSION

Findings from this study show that students are generally satisfied with all aspects of their institution in all three countries examined. Support services show the lowest overall satisfaction scores within all three countries but students are still generally satisfied. Some care is needed in understanding, for example, ‘services provided by the International Office’, as these may well differ across countries and institutions. This could also be the case for ‘campus eating options’, amongst others, so some of these results will need interpreting by individual institutions. However, the overall picture presented here, both within and across countries, offers a context for such interpretation.

Another important factor for consideration is the changing nature of student expectations and the link to provision of services. Many of the institutions surveyed for the ISB will have been receiving feedback for several years and learning from these measures of student satisfaction at institutional level to enhance their provision and support for international students to better address their needs. For example, one surprising finding (Table 6) shows that internet access was the aspect of least influence on the overall living experience of international students in the UK. In contrast, institutional feedback to one of the authors by i-graduate around ten years ago indicated that this was the aspect of greatest concern to international students at that time. Likely explanations for this change include both an improvement in the standard of internet services during the intervening period, and also an understanding by universities of the crucial role internet access plays for all students, causing them to greatly enhance their provision over the years.

Perhaps also a reflection of increasing reliance on online services, a further surprising finding (Table 5) was that physical library facilities had the least influence on overall living experience in the US.

Some findings are less surprising and are in line with anecdotal concerns commonly heard, for example that international students are relatively less satisfied with opportunities to make friends with local students both during their arrival and living experiences (Table 4). Another common student concern evident in the same table is the cost of study and accommodation, allied with the ability to find work during studies.

Satisfaction is high with, perhaps, more ‘niche’ aspects of experience such as use of the accommodation office, residence hall welfare and in particular with chaplaincy and multi-faith provision, even though the numbers accessing them are relatively low (Table 3). This suggests that those who do have cause to use these services are relatively satisfied with them. Given that the original intent of this study had been to investigate the role of support services in student satisfaction, it was a surprise to find that they have the least overall influence of all four dimensions of international student experience in each of the three countries examined (Table 6).

However, there can be no room for complacency, even though international students are relatively satisfied. This study finds clearly that the academic dimension is the most important in terms of influencing the overall student experience, while the literature review indicates the importance of a whole institutional approach. We suggest therefore that, having been successful in achieving a good level of international student satisfaction across all dimensions of experience, institutions recognize the primacy of the learning experience in overall satisfaction, as demonstrated by these findings, and consider placing greater emphasis on support services that enhance that learning experience, by facilitating collaborative working between academic departments and support units.

LIMITATIONS AND FUTURE RESEARCH

This empirical analysis of data from the International Student Barometer investigated the satisfaction of over 45,000 international students with various dimensions of student experience in three different countries. Although this represents a relatively large sample, the study has several limitations.

First, the findings are based on one single instrument which relies on self-reported data. Although the ISB is widely used, other surveys of international student experience might provide different results, especially those administered within an individual institution. Furthermore the study represents a snapshot in time and must be considered in terms of the changing nature of student expectations and increasing sophistication in the experience offered by higher education institutions to all students (including international) across the four dimensions studied here.

The reported findings were not necessarily meant to be generalizable in nature but rather to serve as a comparative baseline and indeed as a possible springboard for future research, one element of which could be to compare the data found here with other instruments or with other methods of data gathering. Of note also is that from the US the sample size of students, as well as the number of participating institutions, were both relatively low compared to those from Australia and the UK.

Even though a large number of students were included, this study only considered undergraduate, degree-seeking students, overlooking those studying for credit in other countries. Erasmus and other exchange students, for instance, were not part of the sample. Others not included were those studying at postgraduate level or on English as a second language programs.

No personal or cultural factors were considered that may have had an impact on student experience. The researchers did not have access to responses for the open-ended questions, which also form

part of the ISB, due to the nature of the confidentiality agreement with i-graduate. It is possible that these may have provided more context on response bias, and engaging with those responses would certainly be interesting for future studies, should access be allowed.

Additional areas for future research would be to take a larger sample size including data from other leading nations in student recruitment, or to expand the data by considering students beyond those at undergraduate level. A comparative perspective with other student satisfaction instruments, or a longitudinal study to assess the changing nature of student experience and expectations are all factors to consider for future research on the topic of international student satisfaction.

CONCLUSION

This study has evaluated international student satisfaction with different dimensions of the university experience, namely their arrival, living, learning, and support service experiences, and the aspects within those dimensions which have the greatest influence on their experience overall. Results from the International Student Barometer of over 45,000 degree-seeking, undergraduate international students at 96 institutions in Australia, the UK, and the US formed the basis of the study, which offers the following:

- enhanced understanding of international student experience and satisfaction;
- support for institutions in interpreting their own results from international student experience surveys;
- help for campus support services in developing collaborative practices;
- support for institutional policies and practices and effective resource allocation for enhancing the international student experience;
- generation of interest for future research on international student experience, in particular, what matters to students and which services should be provided or enhanced;
- support for institutional recruitment and retention strategies, as well as the academic success of students.

Findings from this study represent a starting point for researchers interested in further pursuit of these topics, as well as others, in continuing to explore the rich data provided by the results of International Student Barometer surveys.ⁱⁱ

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ⁱ Approval from the Ethics Board for research on human subjects was obtained for this study.

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Communications Preferences Among International Students: Strategies for Creating Optimal Engagement in Programs and Services

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ABSTRACT

As U.S. institutions continue to welcome larger and more diverse populations of international students, campus support offices are also expected to adjust their programming and outreach strategies to engage a wider student audience and provide them with key information and services. This quantitative study examines the communications preferences of degree-seeking international students enrolled in a mid-size U.S. university. It specifically investigates students' preferred methods of communication, patterns and frequency in sending and receiving messages, and the types of information they prefer to be informed of. The survey also looks across a number of communication media including email, social media, print communications, and face-to-face interactions to better understand how resources may be directed to individual channels. The authors argue that the most impactful engagement model requires an accompanying, analytics-driven communications strategy to support international students during their stay on campus.

Keywords: communications preferences, international students, student engagement, support services

International student enrollment at U.S. institutions of higher education has soared by over 85% in the last decade, reaching a record high of over a million in 2017 (Institute of International Education, 2017). As a larger, more diverse population of students seek opportunities for higher education, an ever-expanding and innovative programming and support model is needed. These programs and services are generally offered by the International Student Services (ISS) office to assist international students with visa and immigration issues, support their academic, social, and cultural success, and engage them with domestic students, faculty, and staff (Choudaha & Schulmann, 2014).

While a number of universities have successfully built these comprehensive and collaborative models for programming, we contend that optimal impact is achieved through the addition of a strong communications strategy for matriculated international students. Analyzing data from a 2017 quantitative study, this article explores the communications preferences of degree-seeking international students at a mid-size U.S. university and proposes a holistic strategy for driving key audiences to engage more effectively. Specifically, the digitally-deployed survey looks across a number of communication media including email, social media, print communications, and face-to-face interactions.

We define communications strategy, based on a definition from Steyn (2002), as a thinking document that guides communications goals, values, actions, and metrics to inform further improvement. Operating in a day and age where technology and information systems are readily available, it is easy to assume that ISS offices have already developed data-driven communications strategies to serve their audiences. However, this might not necessarily be the case in practice. To get a sense of how ISS offices were equipped to support the communication needs of their international student community, we ran a preliminary survey among 42 of the university site's comparator and partner institutions in the U.S. Of those institutions, 36 responded, representing 22 states and international student enrollments ranging from 15 to 17,326. Among those who responded, eight suggested that their office maintained a communications plan and only two reported regular collaboration with their university's central department of communications and marketing. Further, just one institution indicated having a dedicated, full-time communications staff person. Among the respondents' comments, many confirmed that they were sending messages out to students but were not guided by a dedicated communications strategy or had the necessary support and expertise to develop one. Others indicated the need to revise or rework what currently exists so they could be more effective in reaching out to their international student community. One participating institution enrolling over 10,000 international students defined communications strategy as an intentional effort that is "streamlined, coordinated, and transparent" and highlighted the importance of establishing a communication plan as part of their ISS office priorities.

This article aims to contribute to the literature on the responsibility of specialized support from ISS offices, whose role it is to collaborate with partner offices as well as understand, reach, and serve international students. In addition, this study serves as an example of one institution's efforts to align communications strategy with international students' needs and preferences.

LITERATURE REVIEW

As the number of international students studying in the United States continues to grow, many have posited whether the international and domestic student experience differ from each other. While some have argued that segmenting the international student audience can be problematic and result in over-generalization (e.g., Jones, 2017), several studies have pointed to their unique experience on university and college campuses (Smith & Khawaja, 2011; Sherry & Chui, 2010; Lee & Rice, 2007; Hayes & Lin, 1994). International students face a number of distinct challenges as they transition to the U.S. and throughout their studies ranging from the administrative burden of visa compliance, language barriers, and work constraints to a reduced sense of belonging and inclusiveness (Choudaha & Schulmann, 2014; Smith & Demjanenko, 2011). While all students must adjust to a new life in college, international students tend to have greater difficulty in doing so (Kaczmarek, Matlock, Merta, Ames, & Ross, 1994).

In order to address these challenges and to leverage the international community as a key component in campus internationalization, International Student Services (ISS) offices have developed intentional programming. Collaborative in nature, these programs promote academic success, understanding of government regulations, intercultural understanding, and connect students, scholars, and their family members to the local community. As these strategies continue to develop, an accompanying communications plan must follow (Briggs & Ammigan, 2017). Even the most effective programming and outreach strategy may not be successful without its communications counterpart.

International Student Engagement

The recruitment and enrollment of international students to campus is one of the many aspects of campus internationalization at institutions of higher education (Vincent-Lancrin, 2007). Internationalization, defined by Knight (2015, p. 2) as “the process of integrating

an international, intercultural, or global dimension into the purpose, functions or delivery of postsecondary education,” translates into how universities prepare their students to acquire global perspectives and navigate the social and cultural contexts throughout their program of study (Burdett & Crossman, 2012). While student engagement has been studied extensively for American students, this has not been the case for international students, who choose to study in the U.S. for a variety of reasons including academic and research excellence, campus life, support services, and career prospects (Korobova, 2012).

About 80% of traditional-aged undergraduate students engage in one or more extra-curricular activities (Knapp, 1979). Research shows that meaningful interactions between international and domestic students can assist international students’ academic performance and sociocultural adjustment (Dunne, 2009). For instance, certain student organizations and extra-curricular activities not only promote student achievement but also increase general satisfaction with the academic experience (Astin, 1993). The more involved that college students are in the academic and social aspects of campus life, the more they may benefit in terms of learning and personal development. Campus involvement and engagement during their college years can impact students’ social, communication, and interpersonal skills in the workplace, and increase their chance of graduate program acceptance (Dunkel, Bray, & Wofford, 1989).

Understanding what international students need to be successful in their academic, social, and community settings has been a significant foundation for achieving student success at many institutions (Abe, Talbot, & Geelhoed, 1998). Additionally, the increased complexity in immigration regulations, international travel, and risk management has stressed the importance for ISS offices to provide key information to their international student community about visa compliance standards in the U.S. (Rosser, Hermesen, Mamiseishvili, & Wood, 2007).

While further research is needed for university administrators and support service offices to better understand the experience of international students and identify factors contributing to their involvement on campus, more programs and services that stimulate their engagement in purposeful and educational activities are crucial. Meeting the needs of all students in increasingly diverse university communities can be challenging and requires a well-articulated and collaborative programming and outreach plan.

Table 1 lists examples of programs that ISS offices generally host in collaboration with their campus stakeholders to engage and involve international students. It is adapted from Briggs

and Ammigan’s (2017) collaborative model for international student programming and was developed to address the needs of students and support the overall global engagement and campus internationalization efforts of the institution.

Table 1. Examples of ISS programs.

	Programs	Stakeholders
To support academic success	U.S. culture series; Tutoring services; Time management and study skills; Academic honesty and plagiarism; Working with your TA; Language support programs; Resume building; Navigating the library; Coping with culture shock; Managing stress; Dealing with expectations	Office of Academic Enrichment; TA Office; Writing Center; Tutoring Services; University Library; Office of the Ombudsman; Career Services; Counseling Center; Student Wellness; Graduate Office
To understand government regulations	Maintaining your legal status; Employment options; Finding an internship; Travel advisories; Tax compliance issues; Healthcare and insurance; Personal safety; Title IX workshops; Social Security number and driver’s license	Office of General Counsel; Research Office; Student Health Services; Law and Tax Clinics Campus Police and Safety; Human Resources; Office of Equity and Inclusion
To promote international understanding	Weekly coffee hour; Ice cream socials; Essay contest; Welcome reception; Making friends across cultures; Residence Life programs; Intercultural communication workshops; Film series; Bowling nights; Global festivals; Karaoke night	Student Affairs, Residence Life and Housing; Multicultural Center; Recreational Services; Student Center; Student Organizations; Athletics; Various campus and community partner offices
To connect with the local community	Cultural excursions and field trips; Networking with community leaders; Holiday events and receptions; Tailgating party; Host family program; Speaker series	City Manager’s Office; Host families; Office of Community Engagement and Service Learning; Rotary Club; Kiwanis Club

International Student Communications

Outside of the sphere of ISS and across the field of higher education as a whole, institutions have been tasked with creating targeted and compelling communications strategies. Gikas and Grant (2013) found that 67% of surveyed students identified that mobile devices contributed to their academic success. Later, in 2016, the Education Advisory Board (EAB) conducted a study that found just over half of their respondents, 54%, say that they choose to filter their emails from their academic department selectively (Education Advisory Board, 2016). In an environment where all students are required to complete a myriad of tasks and meet many

deadlines, university units must reach students where they are with relevant, timely, and engaging messages. As such, EAB and others have called for universities to integrate digital channels into their communications plans and to deploy clear, optimized messages.

Others within the field have also suggested a more measured approach to international student recruitment. The Hobsons Insight Series proposed that universities in the UK should adopt a “student-centered” approach to their recruitment efforts, using insights from accessible and affordable data to build a target market, to understand their mindset and deliver a personalized product (Hobsons Solutions, 2016). The i-graduate report, “A UK Guide to Enhancing the International Student Experience” (Archer, Jones, & Davison, 2010), also reiterates this need for a metrics-driven approach, recommending that universities develop a strategy for assessment of performance amongst both international and domestic audiences. In addition, the report points directly to a gap between expectations and delivery when it comes to pre-arrival communications.

Over the last decade, several studies have aimed to dig deeper into international student communications preferences and user behavior, particularly when it comes to the role of social media. In an Australian study, Khawaja and Stallman (2011) identify several coping techniques which international students employed as they transitioned to life as an international student. Technology emerged as a well-established medium and students reported the utility of email and social media to both maintain contact with friends and family at home, establish new networks in the U.S., and explore useful information during the transition. Saha and Karpinski (2016) reaffirm this finding in a U.S. survey, which found that the use of social media, specifically Skype, is positively related to international students’ satisfaction with life at their university. Lin et al. (2012), too, found that Facebook usage was positively related to international students’ online bridging capital.

In a recent study, Saw, Abbott, and Donaghey (2013) demonstrate that the social media preferences of international and domestic students “differ only marginally” and that while Facebook may be the most popular social networking sites for international students they surveyed, it did not have exclusive access to the market. YouTube, Twitter, and LinkedIn followed behind and some variation based on country of origin was evident. The study also indicates some disparity between personal and institutional interests on social media, with about a third of students specifying that they would like to keep their social and academic lives separate.

In the United States, China remains the top sender of international students, consisting of 31.5% of all international students enrolled at institutions in 2016. At the university site in this study, Chinese students made up 62% of the international student population in that same

year. Saw, Abbott, and Donaghey's (2013) study showed that, while all Chinese respondents did report having a Facebook account, 62% had created it within the previous two years and 12% did not use the social networking site at all.

It must be noted that very limited literature exists on communications preferences of international students in the U.S. outside the realm of social media. A report from the Office of Student Life at Ohio State University (2017) shows that, while statistically significant differences did exist between international and domestic students, email was the preferred method of communication across the board.

In Australia, several have mapped the information seeking of international students both before their arrival to Australian institutions and after matriculation (Alzougool et al., 2013; Chang and Gomez, 2016). These studies have found that while there are many available online and offline sources, in general, students look to a single source for their information. With no one source reigning supreme amongst the sample populations, the literature argues for a holistic communications approach. In addition, these studies suggest that students who are connected to local social networks tend to consume more diverse sources of information. Offline sources like word of mouth retain their importance, more so for less connected students. While these studies do focus exclusively on the Australian context and rely on small or undisclosed sample sizes, the authors pose relevant topics for future research. These include how ISS offices may tailor their communications efforts to a diverse audience and whether institutional efforts are appropriately aligned with their audiences' needs. This article demonstrates one U.S. institution's metrics-driven approach to optimize their communications strategy in this way.

Strategic Communication

Steyn (2002) defines strategy as the thinking behind the operations and the positioning of values for future use. Similarly, Hallahan et al. (2007) define strategy as the development, implementation, and assessment of communications. They continue by adding that strategic communication is intentional and should be driven by research and scholarship in the field. Argenti, Howell and Beck (2005) reiterate the need for intention, defining strategic communication as an integral communication approach that is aligned with the organization's overall strategy and one that enhances its positioning and supports its outreach function to key constituencies. Many organizations often use short-term, reactive approaches, which is not only nonstrategic in nature but may be inconsistent with or even impede its overall institutional communication strategy.

Communications plans are communication strategy in action. According to the Center for Community Health and Development at the University of Kansas (University of Kansas, n.d.), communications plans follow the following eight step process: 1) identify the purpose of the communication; 2) identify the audience; 3) plan and design the message; 4) consider available resources; 5) plan for obstacles and emergencies; 6) strategize how to connect with the media and others who can help spread your message; 7) create an action plan; and 8) decide how to evaluate and adjust the plan, based on feedback received.

RESEARCH METHOD

This quantitative study examines the communications preferences of degree-seeking international students in an effort to foster engagement and enhance their experience on campus and in the local community. In particular, it investigates students' preferred methods of communication, patterns, and frequency in sending and receiving messages, and the types of information of which they would like to be informed. The survey also looks across a number of communication media including email, social media, print communications, and face-to-face interactions.

Participants

The sample consisted of 113 international degree-seeking students, who were enrolled during the 2017 spring semester at a mid-size 4-year university in the Mid-Atlantic region, referred to as "the university site." Approximately 43% (n = 48) of the respondents were master's students, 37% (n = 42) were doctoral students, and 20% (n = 23) were undergraduate students. These sample demographic characteristics align well with the total population of international students studying at the university site, which enrolled a total of 2,606 international students (1,309 graduate students, 798 undergraduate students). International students at the university site represent 13% of all enrolled undergraduate and graduate students. Of the 33 countries represented in the sample, 36% (n = 41) were from China, 18% (n = 21) were from India, and 9% (n = 10) were from Iran. Approximately 65% (n = 73) of participants had been students at the university for 2 years or more. About 98% (n = 111) reported that they were proficient in reading, listening, and speaking the English language. Of those who responded, 81% (n = 92) felt that they were comfortable with and understood the language and jargon used on U.S.-run social media accounts. The demographic characteristics of respondents are represented in Table 2.

Table 2. Demographic characteristics of respondents (N = 113).

Demographic Variables	<i>n</i>	Proportion
Level of study		
Masters	48	42.5%
Doctorate	42	37.2%
Undergraduate	23	20.4%
Top countries of origin		
China	41	36.3%
India	21	18.6%
Iran	10	8.8%
Average time at university	113	7 months
Proficiency in English language	111	98.2%

Instrument

We developed a four-component online instrument, which was initially established for internal office-related purposes. The survey consisted of 17 closed-ended questions, using the Qualtrics Survey Software for this study (see Appendix A). They then piloted the survey with a small, randomly-selected sample of the survey population and finalized before launching to a wider audience. The first section of the survey focused on the preferred methods of communication and their frequency of use by international students to send and receive information at the university site. The second section gathered data on the types of social media channels students used both in their home country and in the U.S. The third set of questions was focused on content that students prefer to receive from their support office and in turn share back with others in their community. The last part of the survey was designed to obtain demographic data on student respondents, such as country of origin, level of study, and length of time at the university at the time they took the survey. The instrument used a 6-point Likert scale to measure the use of communications methods, ranging from Very Frequently to Never, and a 5-point scale to measure interest in messaging content, ranging from Very Interested to Very Uninterested. Cronbach's alpha was assessed for the communication preferences variables as .91, indicating internal consistency of the variables in the scale.

Procedure

Before launching the survey, we obtained approval from the university site's Institutional Review Board for research on human subjects. The ISS office generated a query of all registered undergraduate and graduate international students, then used this to invite participants to take the online survey via email. International students completed the

questionnaire anonymously and were assured of the confidentiality of their responses. The non-identifiable data were stored and still reside on a secure university server, only accessible by the researchers. For the purpose of this study, an international student was defined as a full-time enrolled, degree-seeking student holding non-immigrant visa status in the U.S. It did not include short-term English as a Second Language students, visiting scholars and researchers, international employees, legal permanent residents, and other immigrant visa holders.

Data Analysis

We imported the data into IBM's SPSS Statistics software (Version 24) for quantitative analysis and developed a codebook to serve as a guide for defining variables and coding responses. Both descriptive statistics (percentages, means, and standard deviations) and inferential statistics (paired sample t-tests) were used to analyze the data. Paired-sample t-tests were used to compare the means of two communication variables within the same group and determine whether the mean difference between the paired observations was statistically significant. A homogeneity test was also conducted to identify any outliers in the analysis of communication preferences. All assumptions regarding the use of paired samples t-test analyses were met with the exception of the following variables, which failed the Levene's test and homogeneity of variance assumption ($p < .05$): Social Media (Send), YouTube (Home), and QQ (Home). Paired-samples t-tests that included these variables were not found to be significant.

RESULTS

Methods of Communication

International students selected from a list, the communication methods they use to regularly send important information as students at the university. Email ($M = 5.51$) was the most frequently-used method of communication, followed by Face-to-Face Interactions ($M = 4.47$), and Social Media ($M = 3.94$). Students used Paper Communications ($M = 2.79$), in the form of letters, memos, posters, etc., rarely to convey information to others. When asked which forms of communication they received and observed important information in, international students correspondingly selected Email as the most frequent ($M = 5.66$), followed by Face-to-Face Interactions ($M = 4.22$), Social Media ($M = 4.03$), and Paper Communications ($M = 3.38$).

We conducted paired-samples t-tests to compare the means of sending and receiving messages by the different methods of communication. There was a significant average difference in the scores for sending and receiving Paper Communications [$t(112) = -4.87, p < .001$], as well as in Face-to-Face Interactions [$t(112) = 2.92, p < .001$]. These results suggest that international students prefer to receive rather than send communications in paper format. They also prefer to use Face-to-Face Interactions when giving important information rather than when receiving information. Conversely, there was no significant average difference in how international students used Email and Social Media to send and receive information—they used both communication media frequently. Table 3 shows the comparison between sending and receiving information in different methods of communication, using paired sample t-tests.

Table 3: Differences in sending and receiving communications (N = 113)

Method	<i>M</i>	<i>M</i>	<i>t</i>	<i>df</i>	<i>Sig.</i>
Email	5.51	5.66	-	112	.06
Paper	2.79	3.38	-	112	.00*
Social Media	3.94	4.03	-	112	.50
Face-to-Face	4.47	4.22	2.92	112	.00*

* $p < .001$

Additionally, a majority of respondents indicated their preference for using Email (69%) and Face-to-Face Interaction (23%) when initiating communication with their support office, rather than Phone (4%) or Social Media (3%). Moreover, 66% of international students would prefer to receive emails on key updates from their support office at least 4 to 5 times per month. Ninety-two percent reported that they understood and felt comfortable using expected email etiquette at their institution and in the U.S.

Social Media Preferences

When asked about their use of social media channels, international students reported that YouTube was their primary social media platform both in their home country ($M = 4.23$) and at the university site ($M = 4.531$). They occasionally used Facebook in their home country ($M = 4.07$) and when on campus ($M = 4.407$). Paired-samples t-tests were conducted to compare the means of social media usage when international students are in their home country versus when they are on campus. There was a significant mean difference in the use of Facebook at home and in the U.S. [$t(112) = -2.28, p < .05$], suggesting that international students used this platform more frequently when they are on campus than at home. There was no significant difference in how frequently international students used YouTube at home and in the U.S.

In looking at Chinese social media channels, Chinese students ($n = 41$) indicated that, of the platforms they subscribed to, they most frequently used WeChat both in their home country ($M = 3.0$) and at the university ($M = 2.73$). The students used RenRen least frequently at home ($M = 1.84$) and in the U.S. ($M = 1.40$). Chinese students had a tendency to use WeChat [$t(40) = 2.95, p < .001$], Weibo [$t(40) = 2.24, p < .05$], and RenRen [$t(40) = 3.11, p < .001$] more in their home country than when they were in the U.S. Table 4 shows the comparison between sending and receiving information in different methods of communication, using a paired sample t-test.

Table 4: Differences in social media usage at home and on campus ($N = 113$)

Channel	<i>M</i> (Home)	<i>M</i> (Campus)	<i>t</i>	<i>df</i>	<i>Sig.</i>
Facebook	4.07	4.407	-2.28	112	.02**
Instagram	3.46	3.654	-1.60	112	.11
Twitter	2.70	2.699	.08	112	.93
YouTube	4.23	4.531	-1.57	112	.11
LinkedIn	3.32	3.548	-1.53	112	.12
SnapChat	2.35	2.415	-.45	112	.65
WeChat	3.00	2.73	2.95	40	.00*
Weibo	2.52	2.23	2.24	40	.03**
RenRen	1.84	1.40	3.11	40	.00*
QQ	2.20	2.04	1.27	40	.21

* $p < .001$, ** $p < .05$

Messaging Content

The survey asked international students about the different topics of information they would be interested in receiving from their support office, and how likely they were to share that same information with other students. While respondents stated that all listed topics were of interest to them, information on Academic Resources and Programs ($M = 4.36$) was the most highly rated, followed by Immigration ($M = 4.23$), Social and Cultural Events ($M = 4.16$), University Safety ($M = 4.01$), and Health and Wellness ($M = 3.94$). Students were not as eager to share information as they were with receiving it—they were somewhat interested in re-sharing information on Academic Resources and Programs ($M = 3.88$), Social and Cultural Events ($M = 3.84$), and Immigration ($M = 3.79$).

We conducted paired-samples t-tests to compare the means of receiving and sharing different topics of information. There was a significant mean difference in interest between receiving and sharing information on each listed topic, suggesting that, on average, international students were more interested in receiving information rather than re-sharing that same information: Immigration [t(112) = 5.09, $p < .001$]; Academic Resources and Programs [t(112) = 5.53, $p < .05$]; Social and Cultural events [t(112) = 3.34, $p < .001$]; Health and Wellness [t(112) = 4.39 $p < .001$]; and University Safety [t(112) = 3.68, $p < .001$]. Table 5 shows the comparison between receiving and re-sharing information on different topics, using paired sample t-tests.

Table 5. Differences in receiving and sharing messaging content (N = 113).

Content	<i>M</i> (Receive)	<i>M</i> (Share)	<i>t</i>	<i>df</i>	<i>Sig.</i>
Immigration	4.23	3.79	5.09	112	.00*
Academic Resources	4.36	3.88	5.53	112	.00*
Social and Cultural	4.16	3.84	3.34	112	.00*
Health and Wellness	3.94	3.47	4.39	112	.00*
University Safety	4.01	3.68	3.68	112	.00*

* $p < .001$

DISCUSSION AND IMPLICATIONS

As the role of ISS offices continues to evolve to accommodate a larger and more diverse population of international students, scholars, and families at U.S. institutions of higher education, communications will become an important area for growth within the profession. ISS offices should employ data-driven communications strategies with the goal of, first and foremost, ensuring that non-immigrant populations receive the information they need to maintain a legal status in the U.S. Beyond this, a collaborative communications strategy should seek to create a sense of community and belongingness amongst its international population and to connect these same people to key ISS programs and to other resources across campus.

This study represents a step by the university site's ISS office to support its immigration services and programming model with a tailored communications strategy that seeks to meet its audiences where they are with relevant and timely information. The data retrieved from this survey has produced a number of key implications for the university site, which are

discussed below along with several examples of how they can be leveraged there and perhaps on other campuses to maximize student engagement.

Email

Email emerged as the most frequently used form of communication to both receive and send information amongst the international students surveyed. The majority of respondents indicated that they would like to receive four to five email messages per month (or approximately one per week) from their ISS office. While the literature suggests that the most successful communications strategies in higher education must reduce unnecessary email “noise” and diversify by employing additional digital channels (Education Advisory Board, 2017; Gikas & Grant, 2013), it is clear that, at least from this study and at the university site, email cannot and should not be discarded as the lynchpin in an ISS communications strategy. Hence, the university’s ISS office must emphasize developing and sending email communications regularly to international students, scholars, and university stakeholders with key calls to action and reminders ranging from immigration to upcoming cultural and social programs. An example would be weekly e-newsletters containing a calendar of events. Working closely with academic and co-curricular units to integrate messaging from the larger campus community would be another. To further support this communication tactic, the ISS office must collaborate with the university’s Office of Communications and Marketing to define a standard operating procedure that guides support staff on how and when to strategically send out mass or personalized emails.

Face-to-Face Interaction

Face-to-Face interaction was the second most preferred form of communication amongst the international students surveyed, confirming that the role of in-person advisors remains integral in the process, especially when it comes to addressing questions or concerns. It is therefore key that a strong connection between advising, communications, and programming staff is established. Messages, particularly those pertaining to immigration regulations, must efficiently direct students back to ISS advisory staff for further support, and also inform them on how they can access the services and programs of the university’s ISS office.

It is common for ISS offices to host a number of social and cultural programs, such as a weekly coffee hour, welcome receptions, and other recreational activities, throughout the year to help students adjust to campus and engage with others in the local community. Such events provide a high level of face-to-face interaction among attendees and can serve as a strategic

platform for ISS staff and other support unit representatives to enable the Counseling Center, Career Services, and Residence Life, to connect in person and convey important information and resources to this community.

Social Media

While the results indicate that respondents did prefer certain social media platforms over others, it is not clear that all international students are using one channel over another to communicate and receive information. In fact, it appears that the students surveyed are active on multiple channels and that preferences differ between students. Employing a comprehensive communications strategy, weighing audiences, consulting with the central office of communications and marketing, and making strategic decisions about which social media platforms the ISS office should have an active presence on are some important factors to take into consideration. It is helpful to communicate key messages across all social media platforms to ensure equal access by all students, though it may be necessary to tailor content for increased engagement on each channel.

YouTube was the most frequently used social media platform amongst the students surveyed in this study despite research suggesting that Facebook is the most popular social networking site for international students. This indicates both the fast-paced environment of social media and the ever-growing importance of video, both on YouTube and other social media platforms. The university's ISS office must consider building social media content that tells the story of their community and promotes key campaigns, events, and calls-to-action throughout the year, using video content whenever possible. The ISS office should obtain support from the central office for communications or hire student employees with relevant know-how to develop video content if the office does not employ a communications specialist.

Of Chinese social media channels, We-Chat was the most frequently used, though there was a statistically significant difference in frequency of use that indicated the students surveyed are more active in their home community than they are during their time at the university site. With China being the top sending country of international students to the U.S., it is important for ISS offices to partner with the recruitment and admissions offices to explore a university-wide presence on WeChat with a central content calendar that targets students even before arrival to campus. Finding opportunities to employ Chinese students on campus or partnering with content expert units, such as the Confucius Institute and the Department of Foreign Languages, to translate content and maintain an official presence on the social media channel would be another strategy.

A Holistic Communications Model

Each of the key trends and communications methods outlined above require significant amounts of time, resources, and talent to implement. ISS communications strategies must and should not operate within a vacuum. While the ISS offices contribute the expertise in content and audience, the central office of communication supplies ample creative talent. In addition, coordination with a university's central office of communications and marketing ensures consistency of brand style and opportunities for the amplification of messaging. It also provides the ISS office with direct and quick access to resources for managing media requests, crisis and risk management issues, and campus-wide messaging.

In order to ensure successful implementation of a communications strategy, ISS offices must develop communications plans throughout the year, also including details on learning goals and outcomes, staffing, timelines, budgets, and strategic points of collaboration. When developing a communications plan, it is also important to understand how the ISS office will partner with expert units to leverage all of its communications channels and achieve its short and long-term goals. This includes both in-person, print and digital communications, such as email and social media outreach. It is important that communications plans are crafted in coordination with ISS programming staff.

This study demonstrates that while key trends exist, students maintain a diversity of communications preferences, all of which must be catered to, and assessed regularly, in order to ensure optimal success in outreach and engagement.

Engagement Between Domestic and International Students

International students often experience difficulties in developing friendships and connecting with both domestic and other international students on campus. This can disrupt their adjustment and integration to many aspects of campus life, especially if they do not receive the social and cultural support they need from their institution. Having a better understanding of the communications preferences of international students can support an ISS office in fostering engagement opportunities with the local campus community.

Based on some of the implications discussed in this study, the ISS office, which serves as the primary domestic host to international students on campus, has developed targeted communications strategies to effectively reach this community and encourage them to

participate in campus-wide activities. Similarly, other service units have collaborated with the ISS office to guide their communications efforts and promote events and opportunities for meaningful, cross-cultural interactions among diverse groups of international and domestic students.

As an example, attendance at a weekly International Coffee Hour at the university site in this study has steadily increased as a result of a strong communications strategy and intentional collaborations with various partner offices on campus and in the local community. With over 200 in attendance each week, this program provides a platform for attendees to make friends, practice their language, learn about different cultures, and enjoy a free beverage and snacks. In addition to growth in new and repeat attendance among international students, a larger community of domestic students and scholars have also begun to attend this program. A meaningful communications and programming strategy has converted attendance into friendship.

CONCLUSION

Being a quantitative study administered at a large research institution, the reported findings were not meant to be generalizable in nature but rather serve as an impetus both for institutional change and for future research. It does not account for personal and cultural factors that may impact the preference and experience of international students nor does it include short term, credit mobility or English language training students. A larger sample size, a more diverse representation of students, and a comparative perspective from domestic students can further this area of research.

However, this study supports the argument for an intentional approach to ISS communications plans and, above all, reassures the importance of formal assessment and the frequent collection of analytics to drive strategy. The survey indicated several key trends that should inform the strategy of the university's ISS office communications strategy:

- Email remains the most preferred form of communication by international students, and should be an anchor component of the ISS communications strategy.

- Face-to-Face interaction was the second most preferred form of communication amongst students, emphasizing the importance of ISS advisory staff.
- While the survey did show preferences for certain social media channels over others, it is not clear that all students prefer one over the other, meaning that the ISS office should adopt a diversified presence on social media.
- Collaboration with a central office of communications and marketing is key in ensuring the successful implementation of a holistic communications strategy.

As the international student population in the U.S. continues to grow and diversify, and as the digital landscape evolves, ISS offices should be prepared to expand, assess, and optimize their communications strategies on a regular basis in compliance and coordination with other institutional departments and support units in order to ensure student engagement, experience, and success on campus.

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Appendix A: Survey Instrument

Question	Scale
1.) How often do you use the following communication methods to regularly send important information pertinent to your life at the University? <i>Email, Paper Communications, Social Media, Word of Mouth (Face-to-Face interactions)</i>	<ul style="list-style-type: none"> • Very frequently = 5 • Frequently = 4 • Occasionally = 3 • Rarely = 2 • Very Rarely = 1 • Never = 0 • Choose not to respond = 100 • Indeterminate (no response) = 200
2.) How often do you use the following communication methods to regularly receive or observe important information pertinent to your life at the University? <i>Email, Paper Communications, Social Media, Word of Mouth (Face-to-Face interactions)</i>	<ul style="list-style-type: none"> • Very frequently = 5 • Frequently = 4 • Occasionally = 3 • Rarely = 2 • Very Rarely = 1 • Never = 0 • Choose not to respond = 100 • Indeterminate (no response) = 200
3.) How many times per month would you like to receive official emails from OISS focused on key updates about your life at the University?	<ul style="list-style-type: none"> • 5 or more times per month = 4 • 4 times per month = 3 • 3 times per month = 2 • 1-2 times per month = 1 • Never = 0 • Choose not to respond = 100 • Indeterminate (no response) = 200
4.) Rate the amount to which you agree with the following statement: “I understand and feel comfortable using expected email etiquette in the United States.”	<ul style="list-style-type: none"> • Strongly Agree = 5 • Agree = 4 • Neither Agree nor Disagree = 3 • Disagree = 2 • Strongly Disagree = 1 • Choose not to respond = 100 • Indeterminate (no response) = 200
5.) How do you prefer to initiate communication with OISS?	<ul style="list-style-type: none"> • Email • Social Media • In-person meeting

	<ul style="list-style-type: none"> • Phone call • Choose not to respond = 100 • Indeterminate (no response) = 200
6.) How often do you use the following social media channels while in your home country? <i>Facebook, Instagram, Twitter, LinkedIn, SnapChat, WeChat, Weibo, RenRen, QQ</i>	<ul style="list-style-type: none"> • Very frequently = 5 • Frequently = 4 • Occasionally = 3 • Rarely = 2 • Very Rarely = 1 • Never = 0 • Choose not to respond = 100 • Indeterminate (no response) = 200
7.) How often do you use the following social media channels while you are here at the University? <i>Facebook, Instagram, Twitter, LinkedIn, SnapChat, WeChat, Weibo, RenRen, QQ</i>	<ul style="list-style-type: none"> • Very frequently = 5 • Frequently = 4 • Occasionally = 3 • Rarely = 2 • Very Rarely = 1 • Never = 0 • Choose not to respond = 100 • Indeterminate (no response) = 200
8.) How strongly are you interested in receiving information on the following topics related to your life at the University? <i>Immigration, Academic events & programs, Cultural and social events and programs, Health & Wellness, University Safety</i>	<ul style="list-style-type: none"> • Very Interested = 5 • Interested = 4 • Neither Interested nor Uninterested = 3 • Uninterested = 2 • Very Uninterested = 1 • Choose not to respond = 100 • Indeterminate (no response) = 200
9.) How likely are you to re-share communications you receive on the following topics with your fellow peers? <i>Immigration, Academic events & programs, Cultural and social events and programs, Health & Wellness, University Safety</i>	<ul style="list-style-type: none"> • Very Likely = 5 • Likely = 4 • Neither Likely nor unlikely = 3 • Unlikely = 2 • Very unlikely = 1 • Choose not to respond = 100 • Indeterminate (no response) = 200
10.) Rate the amount to which you agree with the following statement: “In general, I am able to fully understand the meaning of the language and jargon used on American-run social media accounts.”	<ul style="list-style-type: none"> • Strongly Agree = 5 • Agree = 4 • Neither Agree nor Disagree = 3 • Disagree = 2 • Strongly Disagree = 1 • Choose not to respond = 100 • Indeterminate (no response) = 200
11.) Rate the amount to which you agree with the following statement: “In general, I pay attention to posters and flyers that are hanging around campus.”	<ul style="list-style-type: none"> • Strongly Agree = 5 • Agree = 4 • Neither Agree nor Disagree = 3 • Disagree = 2 • Strongly Disagree = 1 • Choose not to respond = 100 • Indeterminate (no response) = 200
12.) Rate the amount to which you agree with the following statement: “While attending school in the United States, I prefer to receive	<ul style="list-style-type: none"> • Strongly Agree = 5 • Agree = 4 • Neither Agree nor Disagree = 3

official communications in my native language.”	<ul style="list-style-type: none"> • Disagree = 2 • Strongly Disagree = 1 • Choose not to respond = 100 • Indeterminate (no response) = 200
13.) How proficient would you say you are in reading, listening, and speaking the English Language?	<ul style="list-style-type: none"> • Very proficient = 4 • Proficient = 3 • Somewhat proficient = 2 • Not proficient = 1 • Choose not to respond = 100 • Indeterminate/no response = 200
14.) Please indicate your home country.	<ul style="list-style-type: none"> • Coded after collection • Choose not to respond = 100 • Indeterminate/no response = 200
15.) Please indicate your native language.	<ul style="list-style-type: none"> • Coded after collection • Choose not to respond = 100 • Indeterminate/no response = 200
16.) Are you an undergraduate, Ph.D. or Master’s student?	<ul style="list-style-type: none"> • Undergraduate student = 1 • Master’s student = 2 • Ph.D. student = 3 • Choose not to respond = 100 • Indeterminate/no response = 200
17.) Please indicate your current location of residence (City, State, Country).	<ul style="list-style-type: none"> • Coded after collection • Choose not to respond = 100 • Indeterminate/no response = 200

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International Student Services

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Synonyms

International student advising, international student affairs, international student office, international student services

Definition

International Student Services (ISS) generally encompass programs and services provided to students in relation to their formal and informal education at the postsecondary level (Osfield et al., 2016). Whether they are organized through one dedicated support office or decentralized across campus, ISS offices share one mutual goal—to support international students in their academic, cultural and social transition during their studies abroad.

Introduction

With the continuous increase of international student enrollments at institutions of higher education across the world, the question of how well prepared campuses are to ensure the acculturation, integration and success of that population has become important. There is often a mismatch between international student expectations prior to enrollment and their actual campus experiences (Choudaha and Schulmann, 2014). Recognizing the impact of the student experience on recruitment, retention and, ultimately, student success, some institutions are becoming more intentional with resources and staffing to serve the complex needs of international students (Ward, 2016).

However, as Choudaha and Hu (2016) point out, a majority of institutions still struggle to allocate adequate resources and expertise needed to meet the expectations of their (often high fee-paying) international students, potentially leading to lower levels of satisfaction and a negative impact on future recruitment. The successful management and operation of support services for international students can validate an institution's commitment to campus internationalization and the provision of quality resources (Wongtrirat et al., 2015). According to the European Union's Erasmus Impact Study, the increase in the number of both inbound and outbound students has led to an expanding awareness of the necessity to provide support services and streamline administrative procedures (European Commission, 2014). Providing such services not only enhances a university's internationalization dimension of a university, but can also play an important role in attracting and retaining international students (Kelo et al., 2010), as well as building momentum for future recruitment of high-quality students.

Trends and issues

Immigration and compliance

University offices responsible for ISS are often referred to as “one-stop shops,” covering a full range of programs and services dedicated to international students and scholars. ISS staff is primarily responsible for helping students adapt and acculturate to their new environment, while also providing them guidance on an array of issues ranging from immigration regulations and career advising to transportation and local shopping. However, an increase in immigration regulations and federal compliance standards for international students around the world has put more emphasis on ISS staff and student advisors for having extensive legal and regulatory knowledge as part of their daily functions (Wang, 2007). It is important for international student advisors to stay abreast of immigration-related issues and concerns, such as visa application processes and travel and employment requests, so that accurate and timely information and assistance is provided to international students in these areas. In countries like the U.S., Australia or the U.K., for instance, ISS staff have made it their top priority to interpret, maintain and advise international students and scholars on their visa status. Therefore, ISS staff must receive relevant professional development and training to stay current on changing immigration laws.

Collaborative programming and outreach

Engaging international students with the larger campus community can add value and quality to both the student experience and an institution’s overall internationalization efforts. In fact, “quality” in undergraduate education encompasses the whole student experience (Burdett et al., 2012) taking into account not only the academic experience but also campus life. ISS offices on many campuses play a vital role in creating a welcoming and inclusive environment for international students through programming and opportunities for cross-cultural engagement. In addition to serving the complex academic, social and cultural needs of international students, strategic programming and outreach initiatives can provide a platform for all students to develop intercultural competencies, defined by Deardorff (2011) as effective and appropriate behavior and communication in intercultural situations. Collaborative programs usually include orientations, cross-cultural activities, career advising, social gatherings, academic success workshops and field trips to explore the local community, to name a few. However, additional programming efforts require extra funding, resources and time. To overcome budget issues, some ISS offices actively seek opportunities to collaborate with other campus offices, community partners, student organizations and volunteers on initiatives that can reach a wider audience. Designing a cohesive, cross-departmental plan and coordinating intentionally with other service units on campus, can address the needs of students more effectively. Key players in this effort include institutional leadership, faculty, academic departments, the alumni office, and student affairs and service units, such as housing and career services (Megha et al., 2016).

Effective communication support

As more university departments use social media and other communication platforms to reach, inform and connect with students in general, there is a need to determine the effectiveness of these efforts and strategies. For instance, in studying which social networking sites international students prefer for information dissemination activities, Saw (2013) found that students choose particular channels such as Twitter, YouTube and Renren for a wide range of educational and social purposes, while Facebook remains the predominant choice. To ensure that international students, scholars, employees, and their families receive vital and timely information on their immigration status and

opportunities to be involved in campus activities, it is important for ISS teams to dedicate more attention to how messages are crafted, sent and received by their targeted audiences. Woven into an ISS office's overall communication plan, these strategic messages should seek to foster a sense of community and belonging among the international population at the institution, and share the perspectives of the international community with the extended campus. Understanding that methods of communication differ widely by personal preference, cultural practice, and country-specific access, ISS should aim for a multi-faceted approach to reach a wide audience. Methods may include print, electronic and social media communications, as well as accessible training modules, all designed to keep their diverse audiences engaged and well-informed.

Assessing satisfaction with university support services

Support services at institutions of higher education can be a key factor in attracting and retaining international students; the quality of the assistance and services provided can be an important indicator of an institution's strategic commitment to its internationalization agenda. Moreover, because of the increasingly competitive and dynamic educational environment universities operate in, they must be more aware of their students' level of satisfaction with their experience (Elliott et al., 2002). In the context of ISS, there is also strong argument to be made for why universities need to better understand their students' satisfaction with the support services they are provided with. ISS across several countries, but particularly in Australia and New Zealand, use a variety of assessment tools that measure and provide feedback on the needs, expectations or satisfaction level of international students with their university's support services. While some institutions develop their own surveys and satisfaction questionnaires in-house, others have been successful at contracting with external companies and services to gain effective insight into the quality and impact of the services they offer. Still, it is unclear from currently available literature as to whether institutions that survey their international students are analyzing the data, formulating recommendations, and implementing necessary changes based on their findings to improve the support services they provide. Those who have done so were successful at enhancing support in the areas of customer service, student advising, programming and outreach and educational training (Perez-Encinas and Ammigan, 2016).

Crisis and emergency response management

It is not uncommon for many international students to face a crisis during their university years in a foreign environment. Such crises include but are not limited to culture shock, academic stress, financial pressure, family struggles, health concerns and other unexpected emergencies. Unfortunately, on some campuses, international students' unique concerns and needs are traditionally overlooked (Mori, 2000). It is therefore critical for ISS staff to be prepared and trained to effectively respond to and manage crisis situations, protecting the well-being and safety of their students throughout the process. According to literature and resources on crisis management from NAFSA: Association of International Educators and the European Association for International Education, an ISS office must plan in advance to ensure that it has the necessary resources for crisis management, that ISS staff are aware of their responsibilities and office protocols, and that the office has the right referral contacts and partner office experts readily available. It is also important for ISS staff to understand their institution's legal responsibility and liability with respect to different kinds of crises. Working with the university attorney, risk management, public safety, counseling services, and communication and media offices in advance can help prepare for unexpected situations.

Conclusion

The sharp growth of international student enrollments at some institutions around the world adds complexity to the process of providing appropriate support services to meet the needs of that population. While this surge in numbers can be challenging, it also creates an opportunity for ISS offices to play a vital role in advancing inclusive excellence at their respective institutions. Therefore, providing adequate programs and services to international students is becoming central to the work of all university student affairs professionals, not just those who work in designated international offices (Ward, 2016). Through strategic and intentional programming and outreach initiatives, advising services, assessment and feedback-oriented tools, and communication strategies, ISS can help engage and integrate international students in all aspects of a university community as these students achieve their personal, academic and professional aspirations.

Cross References

Deardorff (2011)

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SECTION XII

STUDENT MOBILITY IN HIGHER EDUCATION: A MASS MOVEMENT REQUIRING SIGNIFICANT INVOLVEMENT FROM STUDENT AFFAIRS AND SERVICES

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International students and cross border education are important topics for discussion in universities all around the world. Interestingly, when we think of an international student, we visualize a student coming to our country from another to study. Conversely, when sending a student from our country to another for study, we call it study abroad or cross border education. Actually, the international student is simultaneously studying abroad and the study abroad student is, at the same time, an international student (Ludeman, 1999). It is this intense mobility experience that this section will address.

The immense increase in student mobility across the globe has been described as a “mass movement” (ICEF, 2014), not surprisingly, as students seek to spend parts of their academic career in a different country, as employers prefer graduates who have international experience, as knowledge markets support the pooling of talents from across the globe, and as socio-political stability is advanced through international student mobility (Ortiz, Chang & Fang, 2015). Student mobility also favours income levels after graduation and benefits are compounded for students of disadvantaged backgrounds and traditional minorities (O’Malley, 2017). Student Affairs plays significant roles in the adjustment, health and safety, and accommodation of departing, returning and visiting students, and is also critical in maximizing the influence of international students within local environments.

Student mobility has a significant influence on global issues and, while student mobility has doubled over the past 20 years, there are indicators that this might slow down over the coming decade (Choudaha, 2017). According to Choudaha (2017) “every third globally mobile student was studying at an American or British institution” and this is set to slow down with Brexit and the new American anti-immigrant rhetoric (McGregor, 2017). Equally, the economic rise of the source countries like China and India are facing challenges that may lead to a slow down in exiting students seeking study exchange experiences.

International cooperation to promote student mobility

Student mobility contributes towards knowledge advancement as well as the promotion of global or regional partnerships and socio-political cooperation and stability. Mobility is, therefore, not only a tool to advance knowledge creation, but is also a mechanism to advance regional stability and shared economic, political and social goals.

Educational hubs are created across national and regional boundaries to advance this kind of socio-political cohesion and stability and the European Higher Education Area's Bologna Process is "probably the boldest move and one with the most wide-reaching influence on mobility" that aims, among others, to advance such regional cohesion and stability (Schreiber, 2016, pg. 242). The Bologna Process, with various mobility programs like Erasmus+ that have accelerated student mobility across Europe, sets the benchmark for supra-national agreements in higher education mobility and has enabled inter-university credit transfers, migration and accessible study visas, financial and adjustment support for students wanting to study across the European Higher Education Area (O'Malley, 2017; de Wit, 2010). National Higher Education Initiatives such as the UK Strategy for Outward Mobility seem to drive mobility, even if slowed down by political barriers like the Brexit.

Various other regions have developed common spaces of higher education that promote student mobility like, for instance, the Association of Southeast Asian Nations (ASEAN, 2014). Much like the Erasmus+ program, ten Southeast Asian states, including Myanmar and Vietnam in the west, Japan and Korea in the north, and the Indonesian archipelago in the south, have joined to articulate visa and immigration requirements, credit transfers and shared study programs to advance student mobility (Zhang, 2013).

These regional agreements advance student mobility and research shows that students make good use of these regional mobility programs. For example, 30% of international students enrolled in Organisation for Economic Co-operation and Development (OECD) countries originate from other OECD countries (OECD, 2015). In some cases, tuition fees are waived and immigration linked to study visas is promoted.

Within the African continent, the Southern African Development Community (SADC), incorporating fifteen of the English-speaking continental South, advances student mobility via eased visa agreements, credit transfer, reduced fees and adjustment support programs.

Another development over the recent years is the establishment of international campuses, satellite or branch campuses, with 220 such sites world wide (UO, 2015). New York University's Abu Dhabi campus, and Lancaster and Strathclyde University's campus in Pakistan Lahore's Knowledge Park, are the best examples of how international collaboration finds new expression within local context. Some challenges around these developments are around imported curricula and a potential inarticulation of faculty with "domestic pushback", and curricula/educational policy naturally based on local culture and context. Now these efforts are increasing in culturally sensitive and contextually embedded ways (UO, 2015, p.10; Schreiber, 2016).

Models and approaches to promoting student mobility

Universities, countries, regions and continents have engaged a variety of mechanisms to advance student mobility. At a macro level, global initiatives and organizations, such as the United Nations

Educational, Scientific and Cultural Organization (UNESCO) and the International Association of Student Affairs and Services (IASAS), are set to accelerate student mobility via supporting high-level shared education agendas and hosting global staff and student events.

Intentional internationalization within countries and regions advance student mobility via the implementation of policies and agreements at national and international levels. De-centralized internationalization is in the hands of the educational institutions, and is advanced via the establishment of international offices that support exchange and study abroad programs, via the focus on developing global and international competencies and skills in students and staff, via the establishment of bilateral agreements with target universities, and north-south and south-south agreements and cooperation.

Innovative models, such as the incubator approach, an education hub attracting students from across the globe into a shared research agenda (Cloete et al., 2015), have advanced mobility and given opportunity to students from across wide regions to join an incubator site to collaborate around a focus area. Other intentional models include the ‘Capacity Building Doctoral Education’ (Cloete et al., 2015, p. 81) that is a collaborative network of select institutions across Africa (South Africa, Botswana, Tanzania, Uganda, Malawi and Kenya) that seek to establish a Partnership for Africa’s Next Generation of Academics (PANGeA).

International students as a resource to institutions and the drive to enhance diversity

Many institutions of higher education around the world have become increasingly dependent on the recruitment of international students as they contribute heavily to tuition revenue and economic functioning of the institution (Choudaha, 2017). In the context of higher education internationalization, however, international students are more than just increasing enrollment numbers. They play an important role in supporting the institution’s diversity initiatives and help cultivate intercultural engagement and awareness on campus and in the local community (Lee & Rice, 2007). With greater competition to recruit talented students, both nationally and internationally, and added pressure to serve and retain a growing international student population, it has become critical for institutions to provide sufficient resources that support the experience and academic success of that community.

As universities become increasingly interconnected through international student mobility, models of Student Affairs are also expected to expand and adapt to new audiences across different cultures and contexts (Ping, 1999). Support units and departments, such as the international student services office, housing and residential life, career services, and student wellness, must work together throughout the process to enhance the experience and integration of all students. As trained professionals, educators and mentors, the contribution of Student Affairs professionals is essential in serving the complex needs of international students and maintaining a welcoming and inclusive environment on campus (American Council on Education, n.d.).

International Student Services

International Student Services (ISS) may vary in organizational structure and range of services they provide but all share the responsibility of assisting international students in their educational and cultural transition to campus. Services provided often include orientation programs, immigration advising, assistance with academic and employment issues, and social and cultural programming. The role of international student advisors has become more intricate in recent years due to changing

immigration policies and compliance standards, recurring safety and security concerns, and increased political instability across nations worldwide (Wood & Kia, 2000). With direct access to the international community, ISS offices can play a vital role in furthering global engagement and enhancing intercultural competencies at the university.

Importance of cross-campus collaborations

According to Ting and Morse (2016), Student Affairs professionals contribute to the experience of international students in a number of ways from offering language and academic support programs to promoting positive social relationships among international students, their peers, and the larger community. For this to happen, however, programs must be designed intentionally and collaboratively to serve the complex needs and challenges of a diverse student population. The entire campus community must clearly understand that supporting international students in their academic, social and cultural environments, as well as increasing cross-cultural sensitivity and interactions among all students, can help advance the internationalization and diversity goals of the institution (Koseva, 2017).

Key areas for partnership

A strong collaboration between ISS and Student Affairs within institutions rests on a few key assumptions. First, it is important that senior administration and leadership actively promote the importance of international and domestic diversity on campus and are committed to forging campus-wide partnerships, no matter what the reporting lines are (Peterson, Briggs, Dreasher, Horner, & Nelson, 1999). Second, there must be frequent interactions between ISS and units within the Division of Student Affairs to regularly identify the needs of international students, address the impact of changes in national regulations and visas, and discuss ways to fulfil gaps in support services and resources. An official committee or task force can provide this structure and ensure that relevant information gets communicated strategically to the campus community, partner offices, and higher administration. Third, dedicated physical space must be available for programs and events to take place and for international and national-local students to gather. It is difficult to foster a sense of belonging and promote meaningful interaction when there is no allocated space to build tradition and community.

Programming for student success

Supporting international students on academic success, social and cultural adjustment, and community engagement is one of the many responsibilities of an ISS office. In addition to covering information specific to immigration regulations and employment options, programs and workshops must be organized around the specific academic needs of students such as classroom culture, tutoring services, time management and study skills, academic discourses and plagiarism, and, language support. Developing supportive networks with local students can also help international students adapt quickly to their new living and learning environments. Social and cultural programs such as the coffee hour, welcome receptions, residence life events, a buddy-mentor program, and recreational events can boost engagement and adjustment among students.

International students also require assistance on how to navigate resources and services in the local community. Programs such as shopping trips, excursions, and host family programs, as well as workshops on how to open a bank account, locate ethnic restaurants and grocery stores, apply for a driver's license, and get a cell phone can prove to be valuable. To sustain such an elaborate

programming calendar, however, it is important that university offices team up when developing programs. Adapted from Briggs and Ammigan’s (2017) collaborative model for international student programming and outreach, Table 1 lists examples of programs and campus stakeholders that support international student success.

Table 1. Examples of collaborative programs and initiatives for student success

	PROGRAMS	CAMPUS PARTNERS
Academic success	Classroom culture series; Tutoring services; Time management & study skills; Academic honesty and plagiarism; Working with your TA; Language support programs; Navigating the library; Relationships and dating; Coping with culture shock; Managing stress; Dealing with expectations from home; Peer-to-peer support groups	Office of Academic Conduct; Academic Enrichment; TA Office; Writing Center; Tutoring Services; University Library; Office of the Ombudsman; English Language Program; Career Services; Counseling Center; Student Wellness; New Student Orientation; Dean of Students Office
Social and cultural adjustment	Weekly coffee hour; Ice cream social; Essay contest; Welcome reception; Making friends with Americans; Residence Life mixers; Living-learning communities; Film series; Sports tournaments; Bowling nights; Karaoke; Buddy program; Conversation partners	Residence Life and Housing; Multicultural Center; Diversity Office; Recreational Services; Athletics; Student Centers; Student Clubs; Volunteer Organizations; LGBT Resource Center; Office of Equity & Inclusion
Community engagement	Cultural excursions; Field trips; Shopping trips; Networking with community leaders; Holiday events and receptions; Host family Programs; Student advisory boards	Office of Community Engagement; Service Learning; University Student Centers; City Manager’s Office; Local businesses and service providers; Volunteers and host families

Support before and upon arrival

Preparing international students on what to expect before they reach their institution can help them transition smoothly and settle quickly into their new environment. Pre-arrival information on the visa application process, transportation, housing, health insurance, class registration and other key issues can be made readily accessible in their admissions packet and across existing online and social media platforms. More and more institutions have begun to host pre-departure orientation programs overseas even before incoming students travel to their university. Upon arrival to campus, hybrid orientation programs with other student services units can further assist and guide international students towards a positive and successful experience. Academic advisors should be encouraged to discuss courses being offered at a more detailed level, including class size, organization, and level of difficulty, so that students can choose a more balanced schedule prior to the start of their first semester. Working closely with academic services throughout the semester to pinpoint common challenges and address them through refined programming and initiatives can also serve as a proactive approach to supporting students at the beginning of their studies.

Career planning and development

It can be a stressful experience for international students to find employment during their program of study and after graduation. Their career development and planning process is often focused on challenges, such as, legal requirements, cultural differences, language and communication barriers, and for some, unfamiliarity with the basic career construct of a new society (Reynolds & Constantine, 2007). An effective partnership between ISS and Career Services is essential for addressing the complex career needs of international students. It can include workshops, seminars, walk-in advising sessions, and webinars that cover a wide range of topics such as career planning and decision making, visa requirements, job search and interviewing skills, resumé building, and networking with recruiters. Developing a joint strategy for explaining complicated immigration regulations to prospective employers can also increase internship and employment opportunities for foreign nationals.

Health and wellness

The first days in a new country and culture can be confusing and stressful for many students. This process of transition from one culture to another usually involves adjusting to general life factors such as food, housing, and transportation; academic conditions such as language and educational system; different aspects of culture such as new customs, norms, and traditions; and psychological factors such as homesickness, loneliness, depression, alienation, and loss of community and change of identity (Msengi, 2004). It is therefore extremely important that international students are aware of these aspects and have access to resources that can help with their acculturation process. A collaborative model for information sharing and programming among Student Affairs offices, such as the ISS and the Counseling Center, Student Wellness, and Health Services, can help prevent and alleviate any academic and cultural stressors that may impact the health and wellbeing of students. Examples of programs include workshops and events around how to get started at the university, making friends on campus, communicating across cultures, managing stress, coping with expectations from home, and exercising and eating healthy.

Crisis and emergency response management

ISS staff must be prepared to respond quickly in the event of an emergency involving international students and scholars. There must be protocol and procedures in place to address crises that may include a serious injury or an arrest, a natural disaster locally or abroad, and other unexpected emergencies impacting students (NAFSA, 2015). Working closely with partner offices like Risk Management, Public Safety, and Student Wellness to develop resources and guidance on crisis management ahead of time can be instrumental for ISS and Student Affairs to respond in a timely manner whenever necessary. Collaborative efforts can also include training on the referral process and emergency preparedness for staff, setting up educational workshops and online resources for students, and introducing software that can track, reach, and protect students during emergency situations.

Cultural sensitivity and awareness

To complement a series of programs and resources that help foster an inclusive climate amongst students on campus, it is important that an institution also builds intercultural competence among its stakeholders. ISS play a leadership role in conjunction with the multicultural center, office of equity and inclusion, and diversity office to offer intercultural training workshops that help enhance communication skills, customer service, and techniques to better support, connect, and engage with those across cultures. Examples include intercultural training for students through non-credit or

credit-bearing First Year Experience courses, and establishing comprehensive student leadership programs that assign credit for participation in global or diversity-related activities.

Some very interesting innovative programs are developed across the globe which support mobility and internationalization. Not only are there a myriad of programs that facilitate departure, return and stay of international and local mobile students, so as to improve the benefit for the ‘stay-at-home’ students, but there are also a number of innovative conceptualisations that re-define notions around assimilation and accommodation of international students. Dunn and Fourie Malherbe (2017) describe an innovative programme in South Africa, that focuses on developing diversity and multi-cultural competencies via the establishment of a habitus and milieu that is intentionally diverse and international, so that students “listen, live and learn” in such a rich and textured social residential context and thus develop a range of competencies relevant to internationalisation and diversity while living and learning with each other.

Assessing the student experience

Improving the experience of students is a priority for many institutions as it helps increase retention rates and support recruitment initiatives. Using a variety of assessment tools, some developed in-house and others provided by external companies, universities regularly measure levels of development, competencies, engagement, needs, and expectations of their students. Administrators can benefit from readily-available data to better understand students’ experiences across the university if feedback from departmental surveys, focus groups, and interviews are intentionally made available and research projects are set up and results published.

Conclusion

Student Mobility is not only advancing research, knowledge and the overall educational experience, but it also contributes towards regional and global stability, develops key diversity and international competencies, and is a key contributor towards the promotion of social justice (Schreiber, 2014). Student affairs and services, via International Student Services, contributes to the success of internationalization, not only in terms of supporting departing and arriving students, but also in terms of devising programs that spread the benefits of internationalization in the domestic and local context.

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Institutional Satisfaction and Recommendation: What Really Matters to International Students?

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ABSTRACT

This quantitative study investigates the role of satisfaction variables as predictors of institutional recommendation for over 45,000 international students at 96 different institutions globally. Using data from the International Student Barometer (ISB), it demonstrates which aspects of the university experience are most significant on students' propensity to recommend their institution to prospective applicants. This article also discusses key implications and policy recommendations for how university administrators and international educators could enhance the international student experience and strengthen recruitment and retention strategies on their respective campuses.

Keywords: international students, international student experience, student recommendation, student satisfaction

INTRODUCTION

In an increasingly competitive global market, it is vital that institutions remain attentive to the views, perceptions, preferences, and experiences of international students, particularly in terms of improving satisfaction ratings and institutional recommendation. The decision to select a destination country or institution is generally influenced by a number of “push” and “pull” factors that drive international students to leave their home countries to pursue an education abroad (Banjong & Olson, 2016). These determinants include the quality of education, tuition and living costs, scholarship opportunities, post-graduation employment options, health and safety, and learning a different language such as English, which is common in destination countries like the United States (US), the United Kingdom (UK), and Australia. To that extent, some institutions and countries have strengthened their strategic approach to international recruitment as they become

more aware of the importance of meeting prospective students' expectations about their institutional experience (Verbik & Lasanowski, 2007).

Over the past few years, however, many institutions have prioritized the recruitment of international students as a source of revenue due to financial pressures (Choudaha & Hu, 2016). In some countries, budgetary cuts and government restrictions for publicly-funded institutions have increased the competition for recruiting international students who are self-funded (Luo & Jamieson-Drake, 2013). For those countries, the ability to retain their market share is unclear due to increased competition and pressure from emerging destination countries with pro-immigration programs, better job placement opportunities, and softer visa policies. Institutions have therefore turned to more aggressive international student recruitment strategies to make up costs and meet their financial goals.

International students can significantly contribute to higher education, not only financially but also culturally in terms of facilitating the development of intercultural competencies among all students and positively impacting the institution's internationalization efforts (Urban & Palmer, 2014). Fostering meaningful engagement of international students with the rest of the university community, integrating intercultural perspectives into classrooms, and encouraging domestic students to operate in multicultural groups and teams can enhance the student experience and complement institutional recruitment and retention strategies (ibid 2014). Besides the social and cultural contributions that international students make to their institution, they also help create jobs and add invaluable scientific innovation and technological improvements to the local community (Academic Credentials Evaluation Institute, 2017).

While internationalization is often measured by the recruitment and enrollment of international students, many institutions fail to fully integrate and engage these students with the larger university community after they have been admitted and registered on campus (Spencer-Oatey, 2018). Facilitating engagement and interactions between international and domestic students can enhance the academic, social and cultural experience for all students. Thus, university educators and administrators must be informed of the relevant implications and policy recommendations so that adequate curricular and extra-curricular resources and support services are administered to improve the experience of all students.

Stemming from an article by Ammigan & Jones (2018), this study evaluates the relationship between international student satisfaction and institutional recommendation. It supports the argument that the international student experience can be a driver for institutional recruitment and retention, and for advancing campus diversity and internationalization efforts. Having international students on campus can also serve as an indicator for developing global and intercultural competence of domestic students, faculty and staff via interactions in the classroom and engagement in other extra-curricular settings. However, for these benefits to exist, institutions must be strategic in incorporating the student experience perspective at all levels of their operations, such as their service mission, faculty engagement, organizational leadership structure, and assessment priorities, so that adequate support services and interventions can be implemented to sustain such initiatives.

LITERATURE REVIEW

International Students

According to the UNESCO Institute for Statistics (n.d.), internationally mobile students are students who have crossed a national or territorial border for the purpose of education and are now enrolled outside their country of origin. The Organisation for Economic Co-operation and Development (2015) expands this definition by suggesting that international students are those who are admitted by a country other than their own country of citizenship, usually under special permits or visas, for the specific educational purpose of following a particular course of study at a postsecondary institution of the receiving country. This study focuses on the experience of over 45,000 undergraduate, degree-seeking international students enrolled at institutions in Australia, the UK, and the US.

The United States

The number of international students in the US grew from 723,277 in 2010 to 1,078,822 in 2016, indicating an increase of 49% in enrollment over just 6 years. International students contributed a total of US\$ 36.9 billion and supported more than 450,000 jobs to the local economy during the 2016-2017 academic year (NAFSA: Association of International Educators, 2017). Having said that, US institutions enrolled 31,520 fewer new international students in 2017 over the previous year, indicating a potential loss of US\$ 788 million in revenue for just the first year of studies. International students are critical to the competitiveness of American higher education as they can add diverse perspectives that enrich in-classroom and on-campus experiences for all students and can contribute to advancing research, economic development, and innovation in the global economy (Choudaha, 2018). However, “the recent political turmoil which began with the Presidential elections accelerated several changes which in turn are hurting the competitiveness of US higher education institutions in attracting global talent, reputation, and resources” (ibid 2018).

In 2017, over 45% of institutions of higher education in the US reported declines in the enrollment of new international students, citing the social and political climate, visa difficulties, cost of US higher education, and the global competition for talent as contributing factors to this shift in numbers (Baer, 2017). While the US remains the top destination market for international students, the ability of institutions to retain their market share is unclear due to increased competition and pressure from emerging destination markets with less complex visa policies and better employment opportunities.

The United Kingdom

With the UK attracting more students from overseas than any other country besides the US, international student mobility continues to be an important initiative in the government’s effort to foster engagement in higher education. While there is usually a strong focus on welcoming and teaching international students on university campuses, Ilieva et al. (2016) argue that less attention is often geared towards the quality of education provision and assessment for these students. International students contributed £20 billion to the UK economy in 2017 making their spending

a major factor in supporting local economies in addition to the tuition fees that they pay (The Higher Education Policy Institute, 2018).

UK's vote in the referendum to leave the European Union in 2016 brought about a few challenges for British institutions. Immediately after the vote, there was a rapid decline of around 41,000 international students choosing to study in the UK (Office for National Statistics, n.d.). International educators in the UK suggest that the perceptions amongst potential international students had worsened over the past 12 months, and that government policy has had a direct negative impact on their ability to recruit international students (Hobsons, 2016). They also believe that restrictions on post-graduation employment visas, for example, had an adverse effect on international student recruitment efforts. With the level of uncertainty surrounding the impact of visa regulations, tuition fees, and employment on international student enrollment, institutions in the UK must continue to focus their attention and commitment on providing a welcoming environment and improving the experience of their students on campus.

Australia

A primary component of higher education in Australia is the cultural diversity of the student population on campus, which presents opportunities for both international and domestic students to interact with peers from different cultural, social, and linguistic backgrounds (Arkoudis et al., 2013). According to the Australian Government's Department of Education and Training (2017), there was a 13% increase in international student enrollment from the previous year, revealing the largest increase recorded in a single year. With these unprecedented numbers, international students now make up more than a quarter of all students at certain universities. A recent analysis by the Australian Bureau of Statistics confirmed that the international student sector generated about AUS\$ 28.6 billion in 2017, including tuition fees and living expenses, making it the country's third-largest export behind iron ore and coal (ICEF Monitor, 2017). Economists have credited the boom to the strong reputation of Australian universities, along with a slightly weaker currency and the proximity to Asia. Others have suggested that it may be related to concerns about changes in immigration and visa policies currently affecting other countries.

However, according to the Regional Universities Network, the Australian Government's recent budget cut and domestic funding freeze could significantly impact future student enrollment at universities and, in turn, increase competition for international students (Crace, 2018). With lower enrollments of domestic students, many Australian universities might turn to even more aggressive international student recruitment strategies to make up costs and meet their financial goals. Through a series of collaborative programs led by the Australian Education International (2012), universities continue to explore ways to enhance orientation programs, increase awareness of support services, and gain a better understanding of how to address the needs of international students.

International Student Satisfaction

Student satisfaction is the student assessment of services provided by universities and colleges, which includes the quality of teaching and academic services, support facilities, physical infrastructure, and the social climate on campus (Wiers-Jenssen, Stensaker, & Grøgaard, 2002, p. 185). Satisfaction ratings provide institutions with a sense of what students are experiencing in

the various university settings and environments. An important strategic priority at many institutions of higher education has been to improve student satisfaction and experience, which is seen as a critical recruitment and retention strategy for providing a high-quality education and remaining competitive in the global student market and world rankings (Baranova, Morrison, & Mutton, 2011; Shah & Richardson, 2016).

In recent years, there has been a growing interest from international educators to gather and utilize international student satisfaction data as a way to influence campus change and strengthen support services for this community. Just like at the national level, where governments are assessing their quality assurance policies with regards to meeting the needs of international students, host institutions are using student feedback, obtained via benchmarking instruments, as an indicator of educational quality and a measure to improve services that lead to student success (Shah & Richardson, 2016). Institutions that admit international students cannot expect these students to adjust to their new campus and be successful without adequate levels of support, advising, and programming services (Andrade, 2006).

A recent study by Ammigan and Jones (2018), which also uses International Student Barometer data, found that the arrival, learning, living, and support services dimensions of the international student experience had significant impact on their overall university satisfaction. Of those four dimensions, the learning experience was the most influential. Students also indicated that their first night stay, the quality of accommodation, the quality of lectures, and services provided by their International Office were the most significant satisfaction variables within each dimension of experience.

Arrival Experience

Leaving family and friends back home to study in a foreign country can be an exhausting experience. International students are often nervous to take on this long journey that usually involves challenges such as obtaining a student visa, speaking English, finding accommodation, managing the cost of living, meeting new people, fitting into a new environment, and adjusting to a new classroom culture (Brett, 2013). The experience of arrival to campus can therefore be critical for new international students to get started on a positive note and navigate all the remaining challenges that await them. Universities must be intentional at setting up adequate support services, such as orientation programs, airport pick up, and social activities, that can ease the transition to campus and meet the expectations of incoming students.

Preparing international students on what to expect even before they reach their university can help them transition smoothly and settle quickly into their new environment. “Sensitization” to campus resources early upon arrival can be very important in reducing challenges faced by students—by assisting them in adapting to campus and by providing support for improving their academic performance (Banjong, 2015). Pre-arrival information and guidance on the visa application process, transportation, housing, health insurance, class registration and other key issues can be made readily accessible in students’ admissions packets and through existing online and social media platforms.

Learning Experience

Integrating international students in the classroom through quality education and teaching expertise has become a priority at many institutions (Hellsten & Prescott, 2004). Evidence suggests that international students are generally more academically engaged in their first year than domestic students, and at the same time, shows that faculty assumptions about international student behavior in the classroom are often incorrect (Andrade, 2006). The classroom culture, which includes inter-student interactions such as group work and participation, level of formality or informality required when communicating with faculty, and other language and communication barriers, is one of the biggest challenges faced by international students (Sarkodie-Mensah, 1998). It is therefore important for institutions to actively assess and address the different types and levels of support required by international students in their academic environment.

Shah and Richardson (2016) found that an increased focus on course design, curriculum content and learning resources, teaching methods, student placements or practicums, engagement with staff, technology and assessments were key factors in supporting the international student learning experience. Hellsten and Prescott (2004) suggest that an inclusive teaching philosophy is essential in serving the academic needs of international students in the classroom. This is coupled with the need to increase cultural awareness in pedagogy and teaching methods, as well as the necessity to create opportunities for discussions between international students and faculty or academic staff in university learning settings. Montgomery (2010) suggests though a constructivist approach that, while the many influences on the international student experience are complex in nature, the social context of learning can improve the quality of learning experiences. The skills and competencies that students develop as a result of their learning experiences in a new social and academic environment can help them become global citizens. A supportive campus network and community of international students can serve as a basis for developing meaningful cross-cultural experiences for everyone at that institution.

Living Experience

While the benefits of moving to another country to study are abundant academically, culturally and socially, it can also prove to be a very expensive option for many students. It is therefore not surprising that international students and their families have high hopes and expectations when it comes to the living environment that institutions provide for students, including affordable housing, transportation options, dining services, safety and security, internet and technology, and opportunities to meet other students locally (Brett, 2013).

Life outside the classroom can be a critical aspect of any international student's experience on campus. Culture shock, social isolation, expectations from family and home, cross-cultural relationships, financial difficulties, immigration regulations, housing, and employment options are examples of issues that can lead to added stress, anxiety, and depression (Sarkodie-Mensah, 1998). Arthur (2017) suggests two important factors that can assist international students with their social adjustment and transition to campus and at the same time reduce loneliness and homesickness: 1) the availability of counselors to discuss issues surrounding perceived intercultural adjustment and culture shock, networking skills, navigating relationships, and peer support, 2) the opportunity to establish friendships and foster cross-cultural engagement with local students through volunteer

and student leadership programs, registered student organizations, and social activities in residential halls and other locations on campus.

Support Services Experience

Besides the classroom experience, international students also have expectations about how campus life will add value to their university experience. The support provided outside of the academic setting, such as tutoring, study skills, careers advice, counseling services, library resources, and physical space for learning, can be equally important to maintain academic satisfaction and success on campus (Sarkodie-Mensah, 1998). Roberts and Dunworth (2012) argue that student support services can contribute directly to international student satisfaction and that service providers must be more aligned with students' expectations and needs if they are to increase satisfaction levels. The authors found that, while support services may be abundant and welcomed, international students were not always aware of the full range of services offered and did not understand what the services were specifically for or how to access them.

Hanassab and Tidwell's (2002) support the argument that international students can have a significant impact at institutions of higher education and that it is critical to regularly access students' experiences. Because of the unique needs often experienced by new international students, such as financial stability, adapting to local customs, establishing a network of support, and overcoming language barriers, university support services must be equipped to address emotional or psychological concerns possibly caused by adjustment issues. The authors reiterate the importance for institutions to develop adequate support services and to have a sufficient amount of expertise and staffing to handle new challenges faced by this community.

Institutional Choice and Recommendation

The concept of institutional recommendation is closely related to satisfaction in the sense that satisfied students are more likely to recommend their institution to future students (Mavondo, Tsarenko, & Gabbott, 2004). There is also a higher probability that these students would return to enroll in higher degrees, become valued alumni, and offer job placement opportunities to current students. The decision of prospective international students to select an institution is based on number of factors, such as institutional reputation, safety and security, university environment, quality of life, and visa requirements. However, the recommendation from family, friends, and acquaintances can be one of the most influential motives in their decision-making process (ibid, 2004).

Cubillo, Sánchez, and Cerviño (2006) propose five main factors that can influence prospective international students' institutional choice: 1) personal factors including career prospects, making international contacts, improving language skills, and recommendation from family, friends and professors; 2) the host country's image including cost of living, visa procedures, social aspects, and opportunities to work; 3) the reputation of the city, such as safety and security, social facilities, and the local environment; 4) the status of the institution in terms of ranking, campus atmosphere, research opportunities, experience and expertise of faculty, quality of education, and academic resources; and 5) the evaluation of the program of study, including tuition cost, variety and quality of courses, and recognition by future employers.

Brett (2013) found that teaching quality, personal safety, and the perceived reputation of the institution and education system were the most important factors influencing students' decisions on where to study. Other factors include university websites and an informal network of friends, parents, current students, and alumni. In addition, a recent report showed that course offerings was the main driver of student decisions on institution and location, with the expectation that the chosen course of study would lead to career prospects (QS Enrolment Solutions, 2018). Reviews and marketing materials showcasing the quality of teaching and the experience of academic staff was the second most influential factor in choosing an institution. The report also showed that prospective students were most concerned about the cost of living and the ability to afford the tuition fees. Having a relative or friend in a destination country and receiving information about local culture and customs can help reduce concerns and worries about going to study abroad and impact students' choice of a particular location. Campus safety and a welcoming environment were also important factors in international students' institutional and destination choice.

A survey-based study by Nicholls (2018) demonstrated that international students appear to first choose the country and institution in which they want to study, rather than the actual location of the university within that country. Also important to the respondents in this study was the quality of education, the reputation and ranking of the institution and academic department, safety and security, and the cost and affordability of the program of study. Alfattal (2017) found that the factors influencing students' choice of an institution as their study destination varied between international and local students. Seven choice factors were identified as driving preference differently for international students than for domestic students, namely on-campus housing, recommendation from family, academic reputation, the reputation of faculty, participation in college sports, printed material or video, and need-based financial support.

METHOD

The purpose of this study is to investigate the relationship between international student satisfaction and institutional recommendation. Precisely, it examines associations between different aspects of the arrival, learning, living, and support service environments and students' prospect of recommending their current institution to future applicants. Using multiple linear regression analyses, 80 satisfaction variables were regressed against institutional recommendation as the main dependent variable in this study.

Instrument

The International Student Barometer (ISB) was used in this study to measure the degree of satisfaction and recommendation of international students. The instrument, which is considered the most widely used benchmarking tool for tracking the international student experience globally, consists of 256 close-ended and open-ended questions. Since its inception in 2005, the ISB has gathered feedback from more than 3 million students in over 1,400 institutions across 33 different countries (i-graduate, n.d.). It has been periodically tested for validity and reliability and refined over 14 cycles as the industry standard for measuring international student satisfaction (Brett, 2013). The online survey, administered by i-graduate, uses a 4-point Likert scale to measure satisfaction, where 1=very dissatisfied, 2=dissatisfied, 3=satisfied, and 4=very satisfied, and a 5-

point Likert scale for institutional recommendation, where 1=actively discourage, 2=discourage, 3=neither encourage or discourage, 4=encourage, and 5=actively encourage. Satisfaction items were organized in four main sections: 1) the arrival section (11 variables), which assessed students' first impressions and experiences upon arrival to campus, 2) the learning section (27 variables), which explored students' academic environment and the aspects of teaching, studies, and facilities, 3) the living section (24 variables), comprised of questions around student accommodation, social, and day-to-day life experiences, and 4) the support services section (17 variables), which focused on services provided by university departments, such as the international office, finance department, career services, health and counseling centers, and campus eating options. The Cronbach's alpha reliability coefficient for the arrival ($\alpha = .91$), living ($\alpha = .96$), learning ($\alpha = .96$), and support services ($\alpha = .98$) variables indicated a high level of internal consistency of the satisfaction scales.

Participants

There were 45,701 international undergraduate students from 96 institutions in Australia, the UK and the US in this study. Over 46% of student respondents ($n=21,443$) were from the UK, 46.2% ($n=21,117$) were from Australia, and 6.9% ($n=3,141$) were from the US. Students held 204 different nationalities from countries, nation-states, and sovereign territories around the world, with 18.5% from China, 8.4% from Malaysia, and 4.1% from US. Approximately 90% of all participants were 25 years old or younger. 58.1% were female, 41.8% were male, and 0.1% identified themselves as Transgender FTM, Non-binary/gender fluid/genderqueer, or Indeterminate/Intersex/Unspecified. International students in this study represented 23 different disciplines at the time they took the survey. A majority of them were studying Business & Administrative Studies (22.5%). Over 37% of respondents stated that they were studying in a year other than their first or last year.

Procedure

Respondents were invited by email to complete the online ISB survey in the fall 2016 semester. De-identified responses were made available by i-graduate to ensure confidentiality of the information. The author used IBM's SPSS software to run inferential analyses on the pre-existing data. Institutional Review Board approval for research on human subjects was granted for this study.

FINDINGS

Institutional Satisfaction and Recommendation

A multiple linear regression model tested whether international students' satisfaction with their overall institutional experience, as well as with each dimension of experience (arrival, learning, living, and support services), influenced institutional recommendation. The analysis indicated that each of the five independent variables were statistically significant on the dependent variable ($p < .001$, $t > 1.96$) (see Table 1). It was found that international students' overall satisfaction with their institution ($\beta = .197$, $p < .001$) positively influenced their recommendation to future applicants. Of the four dimensions of experience, "overall satisfaction with learning" impacted

recommendation the most ($\beta=.233$, $p<.001$), followed by “overall satisfaction with support services” ($\beta=.126$, $p<.001$), and “overall satisfaction with arrival” ($\beta=.124$, $p<.001$). “Overall satisfaction with living” ($\beta=.109$, $p<.001$) had the least influence on student recommendation.

Table 1: Impact of Overall Satisfaction on Institutional Recommendation

Satisfaction variables	β	t
Overall satisfaction with institution*	0.197	19.733
Overall satisfaction with arrival*	0.124	11.261
Overall satisfaction with learning*	0.233	20.281
Overall satisfaction with living*	0.109	10.039
Overall satisfaction with support services*	0.126	9.941

Note. * $p<.001$.

Satisfaction Variables and Recommendation

Table 2 shows the predictive value of the various aspects of student satisfaction in each dimension of experience on students’ institutional recommendation. The arrival variables that impacted institutional recommendation were the “accommodation office” ($\beta=.184$, $p<.05$) and “social activities” ($\beta=.129$, $p<.05$). There were a number of learning variables that were significant on recommendation, namely “studying with people across cultures” ($\beta=.068$, $p<.001$), “organization of course” ($\beta=.069$, $p<.001$), “leading to a good job” ($\beta=.064$, $p<.001$), and “opportunities for work experience” ($\beta=.052$, $p<.001$). “Academic staff command of English” ($\beta=-.051$, $p<.001$) was found to negatively influence institutional recommendation for international students. The most significant variables of the living dimension were “making friends with others from this country” ($\beta=.124$, $p<.001$), “networking” ($\beta=.089$, $p<.001$), and “quality of external campus environment” ($\beta=.097$, $p<.001$). No Support Services variables were found to be significant on institutional recommendation.

Table 2: Impact of Satisfaction Variables on Institutional Recommendation

Satisfaction variables	β	t
Arrival variables		
Accommodation Office**	0.184	3.242
Social activities**	0.129	2.143
Learning variables		
Studying with people across cultures*	0.068	4.812
Organization of course*	0.069	4.627
Leading to a good job*	0.064	4.229
Opportunities for work experience*	0.052	4.037
Teaching ability of lecturers*	0.062	3.888
Academic content*	0.061	3.874
Quality of lectures*	0.061	3.7
Career guidance from academic staff**	0.036	2.526
Access to academic staff**	0.037	2.524
Improve my English language skills**	0.037	2.488

Physical library facilities**	0.037	2.451
Academic staff command of English*	-0.051	-3.91
Living variables		
Making friends from this country*	0.124	6.392
Networking*	0.089	4.086
Quality of the external campus environment*	0.097	3.616
Immigration and visa advice**	0.065	3.182
Transport links**	0.063	2.753
Availability of financial support**	0.043	2.414
Support Services variables		
None		

Note. * $p < .001$. ** $p < .05$.

Satisfaction Variables and Overall University Experience

While the previous findings looked at the satisfaction predictors for institutional recommendation, this section used regression models to demonstrate which variables, specific to the arrival, learning, living, and support service environments, predicted overall institutional experience (see table 3). Results indicate that only two arrival variables, experience with the “finance department” ($\beta = .137$, $p < .001$) and “accommodation office” ($\beta = .01$, $p < .05$), had significant impact on students’ overall satisfaction with their institution. Some of the learning aspects of satisfaction that had significant impact on students’ overall institutional satisfaction were “quality of lectures” ($\beta = .085$, $p < .001$), “expertise of lecturers” ($\beta = .074$, $p < .001$), “studying with people from other cultures” ($\beta = .053$, $p < .001$), and “organization of course” ($\beta = .055$, $p < .001$). The living variables with the most significant influence on students’ overall institutional satisfaction were found to be “access to suitable accommodation” ($\beta = .074$, $p < .001$), “quality of external campus environment” ($\beta = .066$, $p < .05$), and “experience local culture” ($\beta = .005$, $p < .05$). “Cost of accommodation” ($\beta = -.036$, $p < .05$) was negatively associated with the overall institutional experience of international students. Understandably so, as costs went up, satisfaction would go down. Similar to the findings for institutional recommendation, no support services variables were found to influence institutional satisfaction.

Table 3: Impact of Satisfaction Variables and Overall Experience

Satisfaction variables	β	t
Arrival variables		
Finance department*	1.137	2.173
Accommodation Office**	0.1	1.702
Learning variables		
Quality of lectures*	0.085	6.934
Expertise of lecturers*	0.074	5.847
Studying with people from other cultures*	0.053	4.978
Organization of course*	0.055	4.878
Academic content*	0.05	4.191
Leading to a good job*	0.046	4.001
Improve English language skills**	0.026	2.35
Access to academic staff**	0.026	2.307

Physical library facilities**	0.023	2.069
Living variables		
Access to suitable accommodation*	0.074	4.225
Quality of external campus environment**	0.066	3.352
Experience local culture**	0.05	3.051
Cost of living**	0.04	2.734
Social facilities**	0.051	2.669
Eco-friendliness attitude**	0.039	2.121
Social activities**	0.038	2.071
Making friends from this country**	0.029	2.015
Cost of accommodation**	-0.036	-2.603
Support Services variables		
None		

Note. * $p < .001$. ** $p < .05$.

DISCUSSION

Factors Influencing Institutional Recommendation

Findings from this study clearly show that the overall institutional experience of international students influence how they recommend their current university to future applicants. There was a strong positive association between these two variables, indicating that the more satisfied students were, the more likely they were to encourage future applicants to apply to their institution. Results also revealed that each dimension of satisfaction (arrival, learning, living, and support services) positively influenced recommendation, suggesting that the experiences of international students within these university environments were key in their recommendation to other students. The learning experience, particularly with respect to curriculum design and teaching, was found to be the most impactful, supporting studies by Shah and Richardson (2016) and Hellsten and Prescott (2004).

When the different aspects of satisfaction were examined more closely (within each dimension), several variables stood out in terms of their impact on institutional recommendation. It is perhaps not surprising to find that students' experiences with their university's accommodation office and their involvement in social activities were the most significant of the arrival variables. New international students often find it challenging to settle into their new residential environment and meet new people upon arrival to campus (Brett, 2013).

From a learning perspective, international students indicated that a multicultural classroom environment was the most important factor in their institutional recommendation to others. The structure in which their program of study and course was organized, as well as the opportunity to find employment, were also highly significant on recommendation. This signals the importance of the classroom setting and course design to students, just as much as the ability to find a good job after graduation. The academic staff command of English was found to be negatively associated with institutional recommendation, which could be an indication that students who are not native English speakers, might struggle to cope with advanced vocabulary and language used by staff.

Making friends with local students was the most influential living variable on recommendation. This finding is not unexpected for the many institutions who are actively establishing programs and support services to engage international students on campus and help them develop friendships with domestic students (Arkoudis et al., 2013; Montgomery, 2010). This study, however, validates the importance of this variable from an institutional recommendation standpoint, which has potential implications for administrators and recruitment professionals.

Another interesting finding revolved around support services for international students. While no specific support variables significantly impacted recommendation, overall experience with support services was found to positively influence this dependent variable. This corresponds with the Ammigan and Jones' (2018) study, which suggests that institutions must consider placing greater emphasis on support services that enhance student satisfaction in the academic setting, sustained by a collaborative service model between academic departments and support units.

Satisfaction Versus Recommendation

Several variables within each dimension of experience were found to impact both institutional recommendation and overall satisfaction for international students. Table 4 indicates which of these variables were common across both dependent variables, stressing the importance of resources and support services around these aspects of experience.

Table 4: Variables Impacting Both Recommendation and Overall Satisfaction

Recommendation		Overall Satisfaction	
<i>Satisfaction variables</i>	<i>t</i>	<i>Satisfaction variables</i>	<i>t</i>
Making friends (local)*	6.39	Quality of lectures*	6.93
Studying across cultures*	4.81	Expertise of lecturers	5.84
Organization of course*	4.62	Studying across cultures*	4.97
Leading to a good job*	4.22	Organization of course*	4.87
Networking	4.08	Suitable accommodation	4.22
Opportunities for work	4.03	Academic content*	4.19
Academic staff English	-3.91	Leading to a good job*	4.00
Teaching ability of lecturers	3.88	Quality of external campus*	3.35
Academic content*	3.87	Experience local culture	3.05
Quality of lectures*	3.7	Cost of living	2.73
Quality of external campus*	3.61	Social facilities	2.66
Accommodation Office*	3.24	Cost of accommodation	-2.60
Immigration/visa advice	3.18	Improve English skills*	2.35
Transport links	2.75	Access to academic staff*	2.30
Career guidance	2.52	Finance department	2.17
Access to academic staff*	2.52	Eco-friendliness attitude	2.12
Improve my English skills*	2.48	Social activities	2.07
Physical library*	2.45	Physical library*	2.06
Financial support	2.41	Making friends (local)*	2.01
Social activities	2.14	Accommodation Office*	1.70

Note. *Common variables across recommendation and overall satisfaction

There were 11 satisfaction variables that influenced both institutional recommendation and overall satisfaction, namely “academic content”, “access to academic staff”, “accommodation office”, “improve English language skills”, “leading to a good job”, “making friends from this country”, “organization of course”, “physical library facilities”, “quality of external campus”, “quality of lectures”, and “studying with people from other cultures”. While “making friends from this country” was the most significant variable on institutional recommendation, “quality of lectures” was most influential on overall satisfaction with the university. “Studying with people across cultures” and the “organization of course” were highly influential on both dependent variables.

Conversely, the unique predictors that influenced recommendation the most were “networking”, “opportunities for work”, and “academic staff command of English”. “Expertise of lecturers”, “suitable accommodation”, and “experience local culture” were the most significant variables on overall satisfaction.

Implications for International Educators

The results of this study have strong recruitment and retention implications for a number of departments and student service units across campus. Beyond working collaboratively to ensure a positive experience for all students, it would be strategic, for instance, for an institution’s admissions office to work closely with their support units and alumni relations offices in identifying ways to include current international students, registered student organizations, and alums in their recruitment efforts overseas. In this context, it is important that institutions capitalize on their existing campus support services and resources as they create strategic and collaborative engagement opportunities, both in and out of the classroom. Staff from student affairs, residence life and housing, dining services, the orientation office, career services, counseling centers, transportation services, academic departments, etc. must work together to support the positive experiences of students as well as the educational mission of the institution as a global community.

Arrival

It is vital that new and incoming international students feel supported right from the moment they get to campus with services such as airport pick up and transportation, orientation programs, and other welcoming events. Assistance with first night accommodation, setting up a bank account, and finances issues and inquiries can also be key in students’ first impressions of their campus. Institutions must remain intentional at creating a sense of belonging for international students through year-round programming and outreach initiatives.

Preparing international students on what to expect before they even reach their institution can also help them transition smoothly and settle quickly into their new environment. Pre-arrival information on the visa application process, transportation, housing, health insurance, class registration and other key issues can be made readily accessible in their admissions packets and through existing online and social media platforms. It is also common for some institutions to host pre-departure orientation programs overseas even before students travel to their university. Upon arrival to campus, hybrid orientation programs with other student services units can further assist and guide international students towards a positive and successful experience. Academic advisors should be encouraged to discuss courses being offered in more detail, including class size,

organization, and level of difficulty, so that students can choose a more balanced schedule prior to the start of their first semester. Working closely with academic services throughout the semester to pinpoint common challenges and address them through refined programming and initiatives can also serve as a proactive approach to supporting students at the beginning of their studies.

Learning

The academic setting, in the form of in-class teaching, studies, and facilities, must remain central to international students' university experience. This includes the academic and pedagogic quality of teaching, expertise of faculty and academic staff, physical infrastructure of classrooms and labs, technology, academic support services, and the social climate within the learning environment. From a marketing and recruitment perspective, administrators must be aware of the impact that learning might have on the propensity to recommend their institution to others and, in turn, be intentional at showcasing relevant academic experiences, achievements, stories, and rankings to prospective students.

With the increasing number of international students in classrooms, faculty and academic staff must also be encouraged to design courses that are conducive for learners across cultures and from different systems of education. This might include adjusting teaching and communication methods to facilitate the academic relationship between international students and faculty. There could also be an implication for how universities recruit, train, and retain qualified faculty and teaching assistants that can promote the quality of learning and academic success. Institutions must look at career planning and development for international students not only as a subsidiary support service but also with a focus on having it integrated into the curricular and classroom experience.

Living

This study confirms the need for institutions to develop opportunities for engagement and involvement between international and domestic students. These initiatives must accompany both curricular and extra-curricular programs and occur in social settings inside and outside of the classroom. In addition to meeting the needs of students, creating global engagement programs such as weekly coffee hours, ice cream socials, leadership and volunteer programs, film and book clubs, conversation partners, and buddy programs can foster campus-wide collaborations in support of campus internationalization.

Another aspect of the living experience to point out is the accommodation for international students. Particularly, receiving support from the accommodation office and accessing suitable housing had a significant impact on students' overall university experience and recommendation. The cost of accommodation had a negative association with overall satisfaction, which is perhaps an expected finding. While there are many factors such as personal preferences and cost of living that could affect cost, it might be tactful for institutions to be transparent about living expenses and ensure that incoming students have a realistic expectation about accommodation costs right from the beginning of their studies.

Making friends with students from other countries was found to be the most influential living variable on institutional recommendation. It might therefore be worthwhile for institutions to

introduce initiatives, such as a buddy program, networking opportunities, and social and cultural events, that can assist with student integration and engagement upon arrival to campus.

Support Services

Students' overall experience with their university's support services significantly impacted recommendation. This suggests the need for support offices to regularly assess student needs and adjust services in order to meet their expectations and demands, ranging from pre-arrival to graduation. Institutions must also remain strategic in how they develop and host programs and services collaboratively with other campus units such as Residence Life and Housing, Career Services, and the Counseling Center. With learning as the most influential variable on institutional recommendation, it is essential that institutions put greater emphasis on support services that enhance the academic experience and success of international students.

International student support offices can vary in organizational structure and range of services but most exist to provide assistance to international students in their educational and cultural transition to campus. These types of services provided often include orientation programs, immigration advising, assistance with academic and employment issues, and social and cultural programming. Despite recent changes in immigration policies and compliance standards, recurring safety and security concerns, and increased political instability across nations worldwide, support offices have direct access to the international community and can play an important role in furthering intercultural engagement for all at the university.

However, a point of consideration for administrators is that all too often, staff in international student support offices have to devote the majority of their time to administering government regulations and maintaining compliance with visa requirements (Briggs & Ammigan, 2017). University administrators must adequately resource such offices so they can lead programming initiatives that contribute to the broader campus internationalization efforts of their institution.

CONCLUSIONS

In addition to the various implications discussed above, findings from this study offer a few considerations to administrators and policy makers for adjusting or introducing new institutional strategies, practices, and interventions that support the international student experience. These recommendations, which introduce a basis for further discussion and study, include the following:

- *Strategic reinvestment*—incorporate or reinvest resources into the student experience at all levels of operations, such as the service mission, faculty engagement, organizational leadership structure, and assessment priorities, so that adequate services and resources can be implemented to support student initiatives.
- *Partnerships and collaborations*—collaborate on initiatives to reach a wider audience, adopt a cohesive, cross-departmental plan with student affairs, academic units, and other service units on campus, and remain intentional at involving a variety of campus and community stakeholders in international programming.

- *Programming and outreach*—implement culturally sensitive programming and interventions that support international students during times of high stress to help them with their academic, social and cultural adjustment to campus.
- *Holistic communication*—establish a strategic communications plan and promotional campaigns to effectively reach, liaise, and optimize engagement among international students.
- *Training and development*—build intercultural competence among faculty, staff and students, aimed at understanding the experience of international students and improving views of campus services for that community.
- *Assessment and benchmarking*—regularly assess the experience of international students, through assessment tools developed in-house or by external providers, to ensure quality in the assistance provided in both academic and non-academic settings.

While this empirical study investigated a large sample of students, it also had a few limitations. As with all self-report surveys, responses from the ISB may reflect response bias from participants. Additionally, this study only evaluated undergraduate, degree-seeking students and did not control for institutional type, which may influence student fit. Future research should also consider the experience of students at the graduate and non-degree levels, and possibly expand the scope to more participating institutions in emerging and non-English-speaking markets globally.

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A Collaborative Programming and Outreach Model for International Student Support Offices

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ABSTRACT

Increasing international student enrollment has been a key priority for many institutions of higher education in the United States. Such recruitment efforts, however, are often carried out without much consideration for providing sufficient support services to these students once they arrive to campus. This article proposes a model for structuring an international student support office to be successful at serving the academic, social and cultural needs of international students through a collaborative programming and outreach model with student affairs and other support service units on campus.

Keywords: international students, programming and outreach, student affairs, support services

The growth of international student enrollments at U.S. institutions over the past decade is shining a light on the complexity of what international students bring to a campus and what it takes to provide an appropriate level of support services to meet their needs. In spite of having long traditions of hosting students from around the world, this continued increase in numbers is calling for campuses to take a closer look at the challenges associated with providing effective support services to this community. Institutions that have identified global engagement as one of their core strategic priorities are having to proactively develop and enhance their support model to meet the changing needs of their international student community and enrich the international student experience. With the reach of institutions extending well beyond their local campuses into global communities, it has become essential for international education administrators to collaborate to a

greater extent with student affairs and services personnel to not only serve more international students, but help all students develop global and intercultural competencies (American Council on Education, 2016). As universities and colleges continue to become increasingly interconnected through student mobility, exchange, experiential learning, and research, models of student affairs in the U.S. also have to expand and adapt to new cultural audiences and contexts. Residence life, housing, dining facilities, student organizations, and career and counseling services are not only regarded as universal elements of the collegiate experience but as a conscious effort to bring students together and contribute to define the educational mission of institutions as a global academic and social community (Ping, 1999). Working closely with student affairs professionals is therefore critical in moving the internationalization of higher education from vision to reality in the U.S. system of higher education.

It is important for institutions to recognize that retention relates to campus-wide experiences and that it is critical for multiple stakeholders to be involved in campus internationalization efforts that support the integration of international students into university life (Choudaha & Schulmann, 2014). As trained educators and mentors of students, student affairs professionals have the necessary skills and technical knowhow to develop and coordinate programs that enhance inclusiveness, diversity, and culturally-rich learning environments on their campuses. One of the five recommendations that the NASPA Association's Research and Policy Institute offers to student affairs professionals is to establish campus wide partnerships that can support and contribute to the holistic learning, development and success of international students (Ting & Morse, 2016). For this to happen, however, Student affairs leaders must nurture support for international programs and services, persuade others that international and domestic diversity is a necessity, and work closely with academic affairs leaders irrespective of the reporting lines of the international student office and study abroad office (Peterson, Briggs, Dreasher, Horner, & Nelson, 1999, p. 67). The contribution of student services staff is essential in serving the complex needs of international students and helping them develop global and intercultural competencies during their stay on campus and in the community (Ward, 2016).

International education can be a big industry when the resources generated are well known contributors to the institution's bottom line (de Wit, 2016). Inevitably, universities that have a strong focus on recruiting international students for revenue generation draw attention to whether they are doing enough to create a welcoming campus environment for these students and provide a platform for international programming and cross-cultural engagement. It is not only traditional institutions that are seeing increased economic activity associated with the business of international students. The trend toward for-profit corporations taking on roles that were historically performed by colleges and universities has become a robust issue of strategy and ethics at all levels of higher education. In this context, it behooves all internationally minded institutions to begin by capitalizing on the strengths of their existing campus support services as they create

strategic and collaborative student engagement programs that can, in turn, generate positive local stories and attitudes.

As we discuss this issue further, certain key questions arise: What is the appropriate level of service that support offices need to provide to international students so they can fully achieve their goals? How can an institution maximize educational benefits of the presence of this kind of global diversity on campus and in the community? This article presents a structured model of programming for international students that we hope will serve as a conversation starter on best practices for ensuring the success of this community. It advocates a vision that is clear, attainable, and realistic, and offers a collaborative model for contributing to the internationalization of the campus as well as the wider community.

IMPORTANCE OF INTERNATIONAL STUDENT PROGRAMMING

Over the years, institutions hosting international students have had to recalibrate their campus resources to address the substantial educational and cultural adjustment needed by these students to be successful (Bista, 2013). In the United States, international students are likely to experience more problems and take longer to adapt to local norms and customs than students who are originally from the United States (Kaczmarek, Matlock, Merta, Ames, & Ross, 1984). These students are probably less exposed to available campus resources and may not know how to find support that can help them cope and adjust to their new home in the United States.

The recent introduction of immigration regulations, policies, and compliance standards by the U.S. government has undoubtedly created a high level of uncertainty and concern amongst international students studying in the United States. With a potential impact on overall international education exchanges and student mobility, institutions are having to reiterate their commitment, dedication and support towards international engagement and mutual understanding on their respective campuses (Choudaha, 2016). Offering programming and outreach support to international students during times of high stress can help them manage the many issues that they face, including language and cultural barriers associated with academic and social adjustment, as well as the emotional challenge often connected with the processes of acculturation. Through the implementation of culturally sensitive programming and interventions, effective outreach initiatives have proven to be successful by many in meeting the various needs of underserved and underrepresented university students (Nolan, Levy, & Constantine, 1996). Such programs can also help strengthen the message that these students are welcomed on their respective campuses.

While many colleges and universities in the United States have specialized offices that assist international students on how to navigate complex immigration rules and regulations, not all offer dedicated services and programs that help with the acculturation and adjustment to the local campus community. Whether they are organized in the form of centralized or decentralized

services, these resources, often offered in the form of cultural programming and engagement opportunities, are essential to the initial and ongoing success of international students and scholars during their stay in the United States (Wang, 2007).

According to Choudaha and Hu (2016), international students often interact with institutional silos. Despite the recognized needs and intent to serve international students, a vast majority of the institutions struggle and must do more to allocate adequate resources and expertise needed to work with this diverse population. Supporting, including, and engaging international students with the larger campus community can add tremendous value to the institution's overall campus internationalization efforts. It is therefore imperative for institutions looking to attract and retain international students to reinforce their services and programming initiatives so they meet the needs of these students and, in turn, cultivate an inclusive climate on their campuses (Ward, 2016).

STRUCTURING THE ISSS OFFICE

Before exploring the programming model, let us start by acknowledging the environment in which International Student Support Services (ISSS) offices exist on their respective campuses in the United States. Although the structure and organizational set up of these offices might differ from institution to institution, they all have one goal in common: to support international students in their academic, social and cultural transition during their studies (Pérez-Encinas & Ammigan, 2016). However, all too often staff in these offices are forced to devote the majority of their time to administering U.S. government regulations and maintaining compliance with visa requirements. With limited time, funding, and staffing, this unique domain of expertise must remain the top priority or the campus might judge them harshly. As a starting point, the structure we suggest can serve as a basis for organizing an ISSS office to provide high-end regulatory as well as programming services.

An office can show its excellence and build reputation for competence with its unique area of expertise in advising on and interpreting government regulations. No other unit on campus handles this core responsibility and it is the ISSS office's duty to maintain high credibility with faculty, administration, and international students and scholars. Building inclusive relationships and collaborations across the campus and in the community can also be an important component for any ISSS office. The visibility gained in participating in planning committees and strategic task forces with key stakeholders such as Residence Life and Housing, Student Life, Career Services, Student Wellness, Academic Services, and Community Coalitions can build trust and relationships with the wider campus community even when the time spent is not directly related to international students. An ISSS office can then take an intentional approach at advancing campus internationalization through programming and outreach to explicit international points of contact. These key associations and entities can be educational, transformational, and important to the

mission of helping bring global perspectives to students, staff, faculty, and community members. It can turn into a story of goodwill and hope that everyone can share and embrace.

DEVELOPING PROGRAMMING AND OUTREACH STRATEGIES

Every innovative programming plan, design, or initiative rests on a few key assumptions. We offer six important ones below in the context of developing and implementing a successful international student programming and outreach model. First, institutions must recognize that international students are a valuable educational and cultural resource that is too often underutilized and overlooked. International educators widely agree that bringing people of different cultural backgrounds into contact with each other can be educationally positive and life changing if done with the right structure (Wongtrirat, Ammigan, & Pérez-Encinas, 2015). Building an inclusive community and a welcoming environment in which its members feel connected, safe, and engaged can be a powerful instrument that impacts students' sense of belonging, experience, and success. If intercultural programming is important to a campus' diversity goals, it becomes a missed opportunity not to make the international student community engaged as a more actively utilized resource. The University of Oregon's International Cultural Service Program (<https://isss.uoregon.edu/icsp>) is an excellent example of involving international students as educational resources in a highly intentional effort to bring international experiences to the campus and community. Program participants must complete an annual 80-hour "cultural service" requirement, by speaking in local school classes and community groups, in exchange for partial tuition assistance. ICSP is now in its 35th year and has proven to be a highly successful model.

Second, it can be difficult for cross-cultural engagement to occur when international students are perceived to stay within their comfort zones and cultural groups (Stahl, 2012). This is an obstacle to students integrating and making contact across cultures, which can be so important to the educational mission of a campus. A study from Baruch College on international student friendship experiences in the United States found that more than one in three international students have no close American friends (Gareis, 2012). Moreover, the successful integration of international and domestic students is unlikely to occur just because the people are in the vicinity of each other. It is best achieved with staff whose mission it is to lead, plan, and facilitate this initiative. The American Council on Education's Leading Internationalization Report (2016) found that globally aware and culturally diverse staff who engage constructively with colleagues different from themselves and whose designated responsibilities are to seek out new global experiences can send a powerful signal to students that these qualities are valued in the campus community.

Third, during the period of time that international students are on campus, they are residing in, interacting with, and using resources from the local community. Opportunities for community engagement can lead to off-campus friendships, better integration with the American culture, business networking, create a positive impact on academic, social, and adjustment issues, and a

more satisfying overall international student experience (Cormack, 1968; De Wit et al., 2008; Fleischman et al., 2010). NAFSA: Association of International Educators provides a dedicated set of resources on Campus and Community Programming (see <http://www.nafsa.org/>) suggesting that there is mutual benefit when community residents are more engaged with the global diversity amongst them. It is important to ensure that international students are taking advantage of experiential learning, career development, and internship opportunities available within their community and beyond during their stay in the United States.

Fourth, institutions should welcome opportunities to collaborate on initiatives to reach a wider audience and be intentional at engaging a variety of campus and community volunteers to be involved in these programs. Designing a cohesive, cross-departmental plan and coordinating more intentionally with student affairs offices and other service units on campus, can address the needs of students more effectively (Roy, Lu, & Loo, 2016). With great access to international students as a programming resource, an ISSS office can also play a helpful role for student affairs and other offices around the university when they develop their own programs for campus internationalization.

Fifth, in addition to having adequate programs and resources in place for fostering an inclusive climate amongst students on campus, it is important for an institution to also build intercultural competence among its diverse stakeholders including the ISSS office, multicultural center, faculty, staff, and administrators (Choudaha, 2016). The ISSS office can play a key role in working closely with other student affairs professionals to lead this effort and provide the necessary intercultural training workshops and sessions that enhance communication skills and the ability to support, connect, and engage effectively with those who are different from us.

And sixth, an ISSS office must be intentional at developing a communication plan and establishing relevant assessment tools to effectively reach and gather feedback from their targeted audiences. Making sure that the ISSS website is user-friendly and accessible, standardizing mass-messaging protocols, promoting events via social media channels, using satisfaction and needs-based assessment surveys, and holding regular focus groups and student advisory committee meetings are good examples. In studying the social networking preferences of international students, Saw, Abbott, Donaghey, and McDonald (2013) found that students choose channels such as Twitter, YouTube, and Renren for a wide range of educational and social purposes, while Facebook remains the predominant choice. To ensure that international students receive critical and timely information on their immigration status and engagement opportunities, it is important for an ISSS office to be intentional at how messages are crafted and deployed to their targeted audiences.

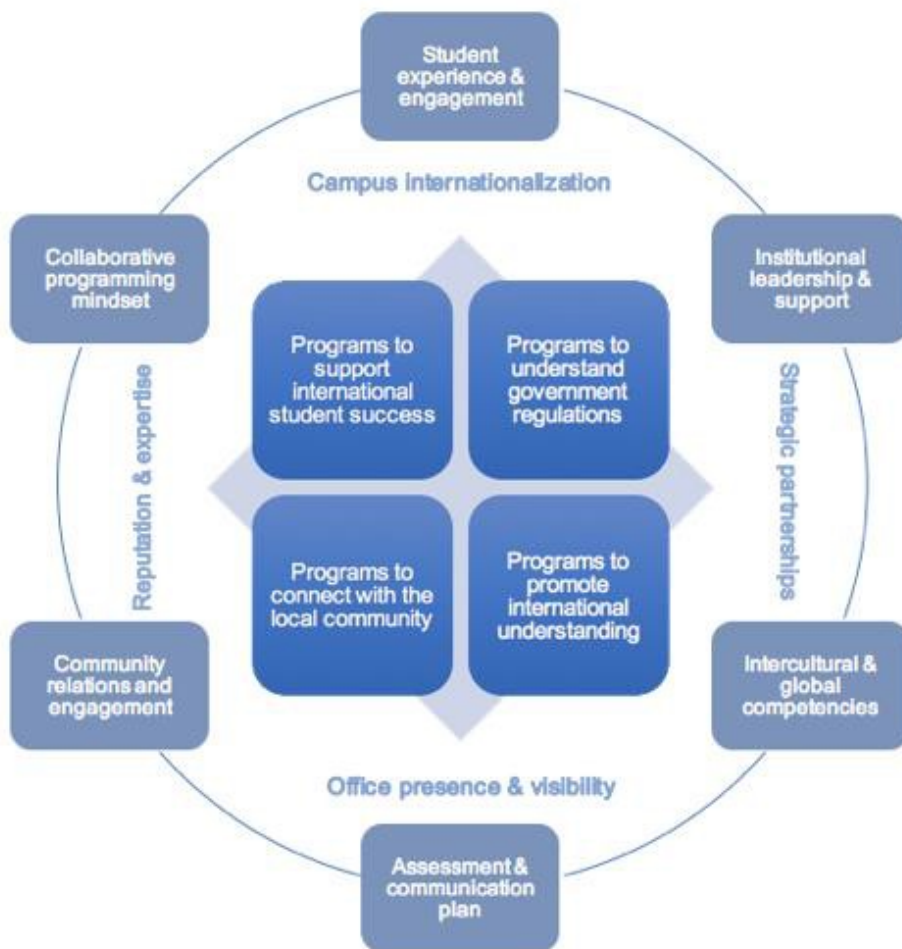
A PROGRAMMING AND OUTREACH MODEL

The programming and outreach model illustrated in Figure 1 was initially developed by the authors in 2004 and has since been adopted by several institutions in the United States as a programming

and outreach master plan for serving and engaging international students on their respective campuses. The model's success at Michigan State University (MSU) and the University of Delaware (UD) can take some credit for the institutions' strong rates of international student recruitment and retention (Institute of International Education, 2016). Its development grew out of the many years of experience the authors had in working with international students in higher education. With an increased emphasis on compliance with government regulations and declining resources, they saw the need to remain firm to longstanding core values of international education by bringing best practices to professional organizations in international education such as NAFSA (Association of International Educators), EAIE (European Association of International Educators) and ISANA (International Education Association).

The understanding of international student needs around the areas of academic success, social adjustment, and community engagement have been common standards to identify success for many years (Abe, Talbot, & Geelhoed, 1998). Moreover, the nexus of international students and border security has been a periodic hot topic over the past forty years and the need for non-immigrant students to understand the issues around maintaining their legal immigration status became all the more important with the implementation of the U.S. Department of Homeland Security's electronic tracking system in 2003 (Rosser, Hermsen, Mamiseishvili, & Wood, 2007). It is important to point out that learning objectives and outcomes should be clearly defined for each emphasis of programming at the time of program planning and development.

Figure 1: A Collaborative Programming and Outreach Model



This model, which is further described with examples of programs and key stakeholders in the next section (see Table 1), is based on four pillars of service to international students:

Programs to Support International Student Success

The ISSS office should attend to the specific needs and well-being of international students and organize programs and workshops to help them be successful academically, socially, and culturally. This includes introducing new international students to the U.S. educational system that emphasizes analytical thinking and drawing conclusions. This contrast of learning expectations can feel like an abstract concept in an academic setting, thus the need for it to be covered more intentionally at new student orientation and first year learning programs. Examples include: U.S. classroom culture series, tutoring services, time management and study skills, academic honesty and plagiarism, tips for communicating with your teaching assistant, and language acquisition and support.

Programs to Understand Government Regulations

All international students are in the United States temporarily for the purpose of study and have special responsibilities that accompany their non-immigrant status. The ISSS office should conduct information sessions on government regulations pertaining to immigration, visas, and employment in the United States. Topics include: maintaining status in the United States, employment options for international students, travel advisories, and tax compliance issues.

Programs to Promote International Understanding

International students bring insights and perspectives that can contribute to cross-cultural sharing and learning. The ISSS office can help to provide opportunities on and off campus for this engagement to take place. This is one aspect of the internationalization of the university. Programs include: weekly coffee hour, essay contest, international education week, welcome reception, Life in the United States series, and making friends with Americans.

Programs to Connect with the Local Community

During the period of their studies at the university, international students are members of the local community. As the primary contact office for international students, the ISSS office can play a leadership role for organizing activities that make connections to members of the wider community. These activities include cultural excursions and field trips, visits to schools and community groups, networking with community leaders, holiday events and reception, and organizing friendship home visits.

EXAMPLES OF SUCCESSFUL PROGRAMMING OUTCOMES

In addition to a variety of examples listed in Table 1, we highlight a couple of programs that have been successful in establishing our programming model over the years at Michigan State University (MSU) and at the University of Delaware (UD).

International Coffee Hour

MSU's international coffee hour was originally launched in 2002 to provide a supportive structured gathering hub for international students and those who wished to be affiliated with the University's international community. Building on the new sense of international community, a group of students who became friends at the coffee hour enjoyed the spirit of community and recognized there was a need for a leading student organization to give voice to international student issues. This led to the formation of the International Students Association in 2003, which serves as the umbrella student organization for other nationality clubs and has grown to become one of the most influential student groups on campus.

Similarly at UD, the weekly coffee hour began as a way to build greater community and provide a space for informal interaction and cross-cultural connection among diverse groups of international and domestic students and scholars. With over 200 in attendance each week, this program provides a platform for attendees to make friends, practice their language, learn about different cultures, and enjoy a free cup of coffee or tea in an organic fashion. Due to its popularity, the coffee hour has become an event open for official sponsorship opportunities, where campus and community partner offices share relevant resources and often provide free giveaways, snacks, music, and other cultural performances. It is also a place where student groups and other communities, such as international families and the International Student Advisory Committee, gather each week and provide feedback to the ISSS Office staff on issues pertaining to international students and scholars at the University.

International Student Essay Contest

MSU's international student essay contest was started in 2003 to counteract any concerns that international students might feel unwelcome with the implementation of new Homeland Security measures undertaken following the terrorist attacks in September 2001. It allowed international students to reflect on and tell their stories of living in a culture outside their own. The winning essay was printed each year in the local newspaper, the Lansing State Journal, thus giving the community an opportunity to build empathy for the challenges international students faced while living in Greater Lansing. Judges for the essay contest were picked from nontraditional sources that did not typically have daily interactions with international students, thus reaching out to new audiences and overcoming the old notion that international programming "preached to the already converted." The success of the essay contest that created a wider and positive image of international students, was embraced by another movement to retain talent in Michigan at a time when the state's economy was badly lagging. The Governor recognized that Michigan's universities were bringing talent in science, technology, education and math (STEM) disciplines that are drivers to economic development through innovation. The Governor's office subsequently formed the Global Talent Retention Initiative (GTRI) as one of several strategies for partnering with ISSS offices at universities within the State of Michigan.

At UD, the international student essay contest was launched in partnership with the Division of Student Life to foster international understanding and cross-cultural awareness on campus and in the community. This contest draws over 100 submissions each year, and like at MSU, all winning essays are made available for University and local Newark community members to read and "walk a mile in the shoes of an international student." Participating students are recognized at a reception during International Education Week and are invited to serve in an intercultural communication student panel discussion throughout the year as part of the institution's campus internationalization efforts.

Career Services and Programs

The ISSS offices at both MSU and UD have established successful partnerships with their Career Services to offer a set of programs and workshops designed to help international students in their job search strategies and networking with prospective employers in the United States. Navigating the legal and cultural landscape of American internships and jobs after graduation can be a challenging task for non-U.S. citizens. To support their career-preparation needs, joint workshops are offered every semester and include topics such as resume building, communication skills, immigration & employment, and networking skills for international students. The series ends with a culminating session that provides an opportunity for hiring international students as well as

Table 1: Examples of Key Programs and Stakeholders

	PROGRAMS	STAKEHOLDERS
1. To support student success	U.S. classroom culture series; Using campus tutoring services; Time management and study skills; Academic honesty and plagiarism; Working with your TA; Language support programs; Resume building; Mock job interviews; Navigating the library; Relationships and dating; Coping with culture shock; Managing stress; Dealing with expectations from home	Office of Academic Enrichment; TA Office; Writing Center; Tutoring Services; University Library; Office of the Ombudsman; English Language Program; Career Services; Counseling Center; Student Wellness; Graduate Office; New Student Orientation Office
2. To understand government regulations	Maintaining your legal visa status in the U.S.; Post graduation employment options; Finding an internship; Travel advisories; Renewing your visa; Tax compliance issues; Export Control; Understanding healthcare and insurance; Rights, responsibilities and personal safety; Title IX workshops; Applying for your Social Security Number; Driving in the U.S.	Office of General Counsel; External immigration counsel; Career Services; Research Office; Student Health Services; Law Clinic; Tax Clinic Campus Police & Safety; Human Resources; Office of Equity & Inclusion; Social Security Administration Office and Dept. of Motor Vehicles
3. To promote international understanding	Weekly coffee hour; ice cream social; essay contest; international education week; welcome reception; Life in the U.S. series; Making friends with	Student Affairs, Residence Life and Housing; President's and Provost Office; Multicultural Center; Recreational Services;

	Americans; Residence Life mixer; intercultural communication workshops; film series; world cup tournament; bowling nights; festival of nations; Karaoke night	Athletics; Student Center; Student and volunteer Organizations; Athletics; Various partner offices on campus and in the community
4. To connect with the local community	Cultural excursions and field trips; visits to schools and community groups; networking with community leaders; holiday events and reception; organizing friendship home visits; tailgating party; host family program; speakers bureau	City Manager’s Office; Local schools, businesses and service providers; Host families; Office of Community Engagement and Service Learning; Rotary Club; Kiwanis Club

pathways students to meet fellow alumni working in the United States and put their new skills to work by mingling with prospective employers who have historically hired international students. At UD, this partnership has expanded to include staff training for university departments, online resources like job search portals for international students, and specialized outreach to future employers, where ISSS staff discuss the advantages of to employment and visa options.

One key strategy that emerged from the formation of these programs is that good leadership can create a “myth” that becomes an inclusive idea with which people want to affiliate. The communication and branding tactic that the ISSS offices widely use for promoting the coffee hour and essay contest programs emphasizes that the university is an international welcoming campus and that the city is a globally friendly community. Reminding audiences, whenever possible, of the importance of community building and campus internationalization can directly impact their perception of and boost attendance at programs and events.

CONCLUSION

International students and scholars contribute greatly to all aspects of campus internationalization and present great opportunities for cross- cultural learning and engagement. It is critical for the larger university community and administration to value their presence and recognize the important role they play in the life and sociocultural fabric of the institution. While many institutions are focused on increasing their international student enrollment due to financial pressures, they need to remain mindful of the importance of having a well-structured support system for when these students reach their campuses. Ensuring that their academic and social needs are met through a robust programming and outreach model, in collaboration with Student Affairs and other service units on campus, is key to providing them with a positive and successful experience during their stay on campus and in the United States.

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Teaching satisfies, but employment recommends: international student learning experiences as predictors of institutional satisfaction and recommendation

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Abstract

This research evaluates the learning experiences of over 66,000 degree-seeking, undergraduate international students at 185 institutions of higher education in ten countries around the world, and investigates the impact of learning on overall satisfaction and institutional recommendation. Using data from the International Student Barometer, this study demonstrates that overall satisfaction is quite different from institution recommendation, as only 9 variables out of 23 were common across both, and those common differed in terms of how much influence they had on the final regression model. For instance, variables centered on teaching mattered most for overall satisfaction while variables focused on employment were most significant for institutional recommendation. Differences between student and institution nationality are discussed, and crucial considerations are offered for practitioners as well as researchers on how to best allocate resources that support the learning experience.

Keywords: learning experience, international students, satisfaction, recommendation, and student satisfaction surveys

Introduction

The enrollment of international students is important for Internationalization of Higher Education and can represent a key economic, political, cultural and academic factor for institutions at the national, institutional, and student level (de Wit, 2016; Roberts & Dunworth, 2012). Although they are “transient visitors” in the host country and academic communities, international students form

an integral part of their university's fabric (Montgomery, 2010) and can represent a good strategy for developing the global and intercultural competence of domestic students, faculty and staff via interacting in the classroom and in other non-academic social settings (Irina, Gregg, & Martha, 2017). However, for these benefits to be prevalent, institutions must be aware of what these students value in terms of learning experiences, how they influence their satisfaction, and how likely they are to recommend their institution.

In this paper, we present findings regarding the impact of learning experiences on overall satisfaction and institutional recommendation for undergraduate international students via a large scale survey – i.e., the International Student Barometer (ISB) (i-graduate, 2014). Before we turn our attention to the results, we will first discuss the international student experience, then we move our discussion specifically to their learning experience, next we discuss the ISB and finally we explore the constructs of consumer intentions and evaluations and cultural differences.

International student experience

Despite the growth of international student enrollment on university campuses (Institute of International Education, 2017), few empirical studies have examined the impact of learning experience on institutional satisfaction and recommendation. While coping with a new academic environment can be a challenge for all students, this can be even more so for international students as they adapt to a new culture, and often a non-native language (Andrade, 2006; Bista & Foster, 2016; Perrucci & Hu, 1995).

An important strategic priority at many institutions of higher education has been to improve the student experience, which is critical for recruitment and retention strategies (Baranova, Morrison, & Mutton, 2011; Shah & Richardson, 2016). There are several factors that can directly impact the experience of international students during their program of study. Jones (2017) identifies four interrelated environments that could influence the student experience in an academic, living, and social setting, namely personal history, family context, institutional nature and location, and national context. Elsharnouby (2015), on the other hand, argues that university-wide experiences of students occur at the core and supplementary level, where the former centers around the learning experience, and the latter centers around things like the university's physical environment, library facilities, educational technology, university layout, social environment, and campus climate. Findlay et al. (2012), in aligned research found that international student mobility is not only about getting a high-quality academic experience at a “world class” institution but also about the social and cultural experiences gained as part of the process.

The learning experience

A recent study by Ammigan and Jones (2018), investigated over 45,000 degree-seeking, undergraduate international students at 96 institutions in Australia, the UK, and the US, found that of the four main dimensions (arrival, living, learning, and support services), learning influenced overall satisfaction the most.

In related research, Wiers-Jenssen, Stensaker and Groggaard (2002) examined the factors leading to student satisfaction for more than 12,000 first-year students. Their analysis revealed that the

academic and pedagogic quality of teaching were important determinants of student satisfaction, along with social climate, aesthetic aspects of the physical infrastructure, and the quality of support services. Satisfaction was highest for the campus social climate, library services, and the academic quality of teaching while it was lower for quality of teaching and administrative staff service level. In aligned research by Butt and Rehman (2010), examined the relationship between student satisfaction and education offerings at higher education institutions and found that teacher expertise, quality of courses offered, learning environment, and classroom facilities all enhanced satisfaction and that teacher expertise was the most influential. Similarly, Sahin (2014) found that teaching quality, university management and leadership, campus life, academic services, infrastructure, and physical facilities, while Asare-Nuamah (2017) found that library services, contact with teachers, class size, course content, reading materials, and general administrative services were key in enhancing the student experience.

Evaluations vs. behavioral intentions or Satisfaction vs. recommendation

In a seminal paper by Cronin, Brady and Hult (2000), the relationship between the core constructs of consumer evaluations – i.e., quality, value, satisfaction, and consumer behavioral intentions – (e.g., recommendation) was researched. Their study evaluated the direct effects between service quality, value and satisfaction on behavioral intentions, as well as indirect paths, where service quality feeds through value and satisfaction to influence behavioral intentions. In essence, their research demonstrates not only that service quality and service value lead to customer satisfaction, but that these two cognitive evaluations precede the emotional evaluation which is customer satisfaction. Their findings are consistent with Bagozzi (1992) – who argues that satisfaction is a secondary evaluation and value and quality are primary evaluations. In the international student experience context, this research seems crucially important as it can give insight into the decision processes prior satisfaction judgments as well as behavioral intentions (i.e., an institutional recommendation).

Mavondo, Tsarenko, & Gabbott (2004) suggest that, among other factors, the concept of institutional recommendation is closely related to satisfaction and that satisfied students are more likely to engage in word of mouth communication to recommend their institution to potential or future students. And yet, not all satisfied customers recommend services they have purchased (see Clemes, Gan, & Ren, 2011; Gounaris, Dimitriadis, & Stathakopoulos, 2010; Lobo, Maritz, & Mehta 2007 and Olorunniwo, & Hsu, 2006) for research on the relationship between satisfaction and recommendation in industries that range from hospitality to e-shopping). Students in the Mavondo, et al. (2004) research stated, however, that they would return to enroll in higher degrees, become valued alumni, and offer job placement opportunities for current students.

The role of recommendations matters, as often these are crucially important for purchasing decisions (e.g., Duhan, Johnson, Wilcox, & Harrell, 1997; Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004; Zhu & Zhang, 2010 – and the seminal works on word-of-mouth – i.e., Arndt, 1967, and Westbrook, 1987). Cubillo, Sánchez, and Cerviño (2006) studied the different factors that influenced the decision making process of prospective international students in selecting a university and found five main variables determined institutional choice. These main variables include: 1) work – i.e., post-graduation career prospects, opportunities to work while at the institution; recognition by future employers, and improving language skills; 2) institution issues –

i.e., ranking, campus atmosphere, research opportunities, experience and expertise of faculty, quality of education, academic resources, and international contacts, 3) program of study – i.e., tuition costs, variety and quality of courses; 4) host country issues – i.e., cost of living, visa procedures, social-life prospects, 5) local issues – i.e., local safety and security, local social facilities, and the local environment;

Importance of cultural differences

Culture is an influential factor that shapes values and behavior. Since one's psychology includes one's thoughts, feelings and behaviors, it is no accident that one's culture includes common beliefs, characteristic affective reactions, and patterns of behavior that are shared by many in a society. Culture, as a national character, are those thoughts, feelings and behaviors that are common among people from a particular nation, and Hofstede's (1991) research is on precisely this as he identified six cultural dimensions, namely, power distance, masculinity, uncertainty avoidance, and individualism, long-term orientation and indulgence. A quick glance at Hofstede Insights (2018) reveals that countries included in our current research (see Tables 1 and 2 in terms of institution and student nationalities), differ significantly for many of Hofstede's cultural dimensions. In fact, some countries score nearly at the maximum level on that dimension while others score at nearly the lowest level. For example, Malaysia scores at the highest level for the dimension of power distance while Germany scores nearly at the lowest level, and while China scores nearly at the lowest level for the individualism dimension, United States scores at nearly the highest level.

While Hofstede's (1991) research goes beyond the scope of the current project, it is quite clear that one's nationality strongly influences one's culture, and that one's culture could strongly influence satisfaction, and recommendations. In fact, Tsang & Ap (2007) found that Asians (who score high on collectivism) were much more likely than Western tourists to base their satisfaction on interpersonal relationships. In related research, Reiman, Lünemann, and Chase (2008) found that Swedish participants, who are associated with a low level of uncertainty avoidance were more likely to be satisfied with their service with an international gas provider, than Spanish participants who are associated with a high level of uncertainty avoidance were more likely to be satisfied with a Spanish national gas provider. Within international education, research by Mai (2005) seems to indicate just that as expectations differ across countries. For instance, Mai (2005) found that students had different levels of expectations when they study in the US than in the UK, and that US institutions provided a higher quality of education that exceeded students' expectations. Indeed, Mai's comparative student on student expectations is consistent with country of origin effects on product evaluations (Bilkey, & Nes, 1982), whereby quality, value, satisfaction and behavioral intentions are significantly influenced by a product's country of origin (Peterson, & Joilibert, 1995).

The International Student Barometer

The International Student Barometer (ISB) is the world's largest survey and leading benchmarking tool of international student satisfaction in higher education (Garrett, 2014), Administered by i-graduate, a UK based company, the ISB tracks and compares the decision-making, expectations, perceptions, intentions and satisfaction of international students from application to graduation (i-graduate, 2014). It enables host universities to make informed decisions to enhance the

international student experience, optimize resource allocation and support services, provide strategic input to key investment decisions, and drive successful recruitment and marketing strategies (ibid 2014). Since its inception in 2005, the ISB has gathered feedback from over 2.9 million students in over 1,400 institutions and across 32 countries (Brett, 2013). The instrument examines international student satisfaction in the arrival, learning, living, and support services dimensions of institutional experience. It also investigates students' recommendation of their institution to future applicants (ibid 2013).

Yu, Isensee, & Kappler (2016) explored how data from the ISB could be used to drive change and enhance campus internationalisation at the University of Minnesota in the United States. International students indicated that it was highly rewarding to be involved in diverse learning activities and regular scholarly exchanges with faculty and other classmates, which they believe led to new learning opportunities, cross-cultural perspectives, and intercultural friendships. While generally satisfied with several aspects of their living experience, the study found that students struggled to develop friendships with local and other international students, and often experienced a disconnect with the wider campus community outside of the classroom.

In conjunction with i-graduate and iUniversities Australia and Australian Education International, Brett (2013) analyzed international student satisfaction data from 36 Australian universities that used the ISB. The findings showed that Australian universities improved in student satisfaction over the past two years, and did well compared to their peer institutions globally. 37,060 respondents were generally satisfied with their experiences at their respective institutions. In terms of their learning experience, international students indicated that they were not satisfied their academic performance feedback, as well as opportunities to teach during their studies.

Methods

The relationship between learning experience, overall satisfaction and institutional recommendation for degree-seeking, undergraduate international students at higher education institutions in 10 countries around the world was researched. This study included 31 independent variables (8 demographic and 23 learning), while institutional satisfaction and recommendation were the two dependent variables. Demographic variables included student nationality, year of birth, program status, study type, study area, study stage, gender and destination country. Twenty-three variables regarding learning experiences (see Table 1) were regressed against institutional satisfaction and recommendation using both a step-wise regression and multiple linear regression. International student nationality (10 most frequent nationalities) as well as destination country (10 participating countries) were considered covariates.

Instrument

The ISB measures students' satisfaction with arrival, living, learning, and general support services, and whether they would recommend the institution to future applicants (i-graduate, 2014). The instrument, consisting of 256 close-ended and open-ended questions, has been refined through 18 cycles and is considered the industry gold-standard for assessing the international student experience (Brett, 2013).

The learning section of the questionnaire, which focused on the university’s academic setting, included a range of items such as the content and quality of lectures, academic expertise and teaching quality of faculty, marking, assessment and feedback, and library resources and classroom technology. The ISB uses a 4-point Likert scale, where 1 = very dissatisfied, 2 = dissatisfied, 3 = satisfied, and 4 = very satisfied. The Cronbach's alpha reliability coefficient for the learning satisfaction scale was .96, indicating a high level of internal consistency.

Participants

International undergraduate students were invited via email to complete the online ISB survey from September-December, 2016. De-identified responses were made available to the researchers by i-graduate to ensure confidentiality of the information. Institutional Review Board approval for research on human subjects was granted for this study.

66,272 international students from 185 institutions in 10 participating host countries—Australia, Canada, Germany, Hong Kong, Ireland, Malaysia, Netherlands, Sweden, UK and USA—completed the questionnaire. Of the 185 institutions, 22.7% were from the UK, (n = 42), 20% were from Germany (n = 37), and 17.8% (n = 33) were from Australia. Approximately 32.4% (n = 21,443) of all respondents were studying at institutions in the UK, 31.9% (n = 21,117) were from Australian institutions, and 10% (n = 6,618) were from German institutions (See Table 1).

Table 1. Institution and participant distributions by destination country.

<u>Country</u>	<u>Institution</u>	<u>%</u>	<u>Participant</u>	<u>%</u>
Australia	33	17.80	21,117	31.9
Canada	15	8.10	1,006	1.50
Germany	37	20.00	6,618	10.0
Hong Kong	7	3.80	2,250	3.40
Ireland	7	3.80	3,271	4.90
Malaysia	5	2.70	959	1.40
Netherlands	7	3.80	4,285	6.50
Sweden	12	6.50	2,182	3.30
UK	42	22.70	21,443	32.40
USA	20	10.80	3,141	4.70
<u>TOTAL</u>	<u>185</u>	<u>100.00</u>	<u>66,272</u>	<u>100.00</u>

Participants represented 217 different nationalities. The most frequently listed nationalities was Chinese (n = 11,121), representing 16.8% of all respondents and Malaysian at 6.4% (n = 4,233) (See Table 2). The mean age was 22 years (SD = 3.97), with 89.6% ranging from 16-25 years. 49.4% (n = 32,755) were female, 35.2% (n = 23,354) were male, and 15.3% did not disclose their gender, while 28 students identified as Transgender FTM, Non-binary/gender fluid/genderqueer, or Indeterminate/Intersex. Participants were enrolled in 23 different fields of study; 22% (n = 14,552) Business & Administrative Studies, 12.8% (n = 8,488) Engineering, and 8.1% (n = 5,357)

Biological Sciences. 34.6% (n = 22,940) were in their first year of their studies, 25% (n = 16,564) were in their last, while 40.4% (n = 26,768) were somewhere in between.

Table 2. Ten most frequently listed participant nationalities.

<u>Country</u>	<u>Participants</u>	<u>%</u>
China	11,121	16.80
Malaysia	4,233	6.40
Germany	3,128	4.70
USA	2,973	4.50
India	2,100	3.20
Singapore	1,929	2.90
Hong Kong	1,862	2.80
France	1,692	2.60
South Korea	1,504	2.30
Italy	1,472	2.20
<u>TOTAL</u>	<u>32,015</u>	<u>48.40</u>

Results

Descriptive statistics, such as counts, percentages, and means, were computed to summarize demographics and study variables. The distribution of continuous variables was checked for severe deviations from normality. The dependent variable of overall satisfaction as well as all of the independent variables regarding learning environment were continuous and on a 4-point Likert-scale, as described above.

Overall Satisfaction

A multiple linear regression model tested if the learning variables significantly predicted overall satisfaction. Normality and homoscedasticity of residuals were verified and absence of multicollinearity and outliers were determined. Only those participants who fully completed the learning section of the survey as well as the overall satisfaction question were included in this analysis, resulting in 20,284 participants.

Regression results indicated that 14 learning variables significantly influenced overall satisfaction explained 16% of the variance ($R^2 = .160$, (13, 20271) = 296.380 $p < .05$). It was found that “quality of lectures” ($\beta = .162$, $p < .01$) predicted, more than any other learning variable, overall satisfaction, and that only “English of academic staff” ($\beta = -.018$, $p < .05$) and “online library” ($\beta = -.019$, $p < .05$) negatively influenced overall satisfaction (See Table 3).

Table 3. Learning Variables and Overall Satisfaction

<u>Learning Variables</u>	<u>Category</u>	<u>β</u>	<u>t</u>
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Quality of lectures*	Teaching	0.162	17.436
Academic and program content*	Teaching	0.092	10.304
Expertise of faculty*	Teaching	0.078	8.307
Program organization*	Teaching	0.064	7.259
Employability*	Studies	0.063	6.522
Teaching ability of faculty*	Teaching	0.054	5.794
English language support*	Studies	0.043	4.972
Performance feedback**	Teaching	0.029	3.042
Grading criteria**	Teaching	0.028	2.952
Assessment of coursework**	Teaching	0.023	2.462
English of academic staff**	Teaching	-0.018	-2.231
Learning support**	Teaching	0.019	2.141
Multicultural study environment**	Studies	0.018	2.121
Online library**	Facilities	-0.019	-2.020

Overall Satisfaction & Participant Nationality

Linear regression models were performed with the 23 predictors for the 10 most frequent participant nationalities. Results demonstrate that overall satisfaction, when analyzed by participant nationality, was influenced by 11 distinct independent variables, with “quality of lectures” and “program organization” being the most frequent variables to significantly influence overall satisfaction (See Table 4). “Quality of lectures” was found to positively influence overall satisfaction for German ($\beta = .169$, $p < .05$), Malaysian ($\beta = .135$, $p < .01$), South Korean ($\beta = .129$, $p < .05$) and Chinese ($\beta = .098$, $p < .01$) students and while “program organization” found to positively influence overall satisfaction for Singaporean ($\beta = .176$ $p < .05$), South Korean ($\beta = .124$, $p < .05$), and Indian ($B = .109$, $p < .05$) students. The only variables found to negatively influence overall satisfaction were “academic and program content” for French ($\beta = -.264$, $p < .05$) students, while “English language support” was for Singaporean ($\beta = -.140$, $p < .05$) students.

Table 4. Overall Satisfaction and Student nationality

Nationality	Learning variables	Category	β	<i>t</i>
Malaysian	Quality of lectures* ₁	Teaching	0.135	3.747
Chinese	Quality of lectures*	Teaching	0.098	4.952
German	Quality of lectures**	Teaching	0.169	2.641
South Korean	Quality of lectures**	Teaching	0.129	2.402
Singaporean	Program organization** ₅	Teaching	0.176	2.803
South Korean	Program organization**	Teaching	0.124	2.516
Indian	Program organization**	Teaching	0.109	2.195
American	Career guidance and advice**	Studies	0.234	2.318
Indian	Career guidance and advice**	Studies	0.104	2.077
German	Expertise of faculty* ₃	Teaching	0.2	3.574

Chinese	Expertise of faculty*	Teaching	0.083	4.045
South Korean	Multicultural study environment** ₁₃	Studies	0.126	2.865
Indian	Multicultural study environment**	Studies	0.111	2.387
French	Academic and program content** ₂	Teaching	-0.264	-2.692
French	Assessment of coursework** ₁₀	Teaching	0.287	2.516
Singaporean	English language support** ₇	Studies	-0.140	-2.442
Indian	Level of research activity**	Teaching	0.099	2.161
French	Quality of classrooms**	Facilities	0.302	2.662
South Korean	Quality of labs**	Facilities	0.107	2.056

* $p < .001$. ** $p < .05$. Numbers indicate Beta value influence for dependent variable “Overall Satisfaction” excluding the covariate of student nationality – See Table 3

Overall Satisfaction & Destination Country

Linear regression models were performed with the 23 predictors for the 10 destination countries. Results demonstrate that overall satisfaction, when analyzed by destination country, was influenced by 14 distinct independent variables, with “quality of lectures” and “expertise of faculty” being the most frequent variable to significantly influence overall satisfaction (See Table 5). Interestingly, unlike overall satisfaction and overall satisfaction by student nationality, no variables negatively influenced overall satisfaction by destination country. “Quality of lectures” was found to influence overall satisfaction for destinations that include Hong Kong ($\beta = .191$, $p < .001$), Australia ($\beta = .120$, $p < .001$), Ireland ($\beta = .204$, $p < .05$), UK ($\beta = .050$, $p < .05$), and Germany ($\beta = .090$, $p < .05$).

Table 5. Overall Satisfaction and Destination Country

Destination	Learning Variables	Category	β	t
Hong Kong	Quality of lectures* ₁	Teaching	0.191	4.391
Australia	Quality of lectures*	Teaching	0.120	8.026
Ireland	Quality of lectures**	Teaching	0.204	3.473
UK	Quality of lectures**	Teaching	0.050	2.509
Germany	Quality of lectures**	Teaching	0.090	2.217
UK	Expertise of faculty* ₃	Teaching	0.076	3.78
Australia	Expertise of faculty**	Teaching	0.048	3.133
US	Expertise of faculty**	Teaching	0.124	3.019
Netherlands	Expertise of faculty**	Teaching	0.109	2.309
UK	Employability** ₅	Studies	0.072	3.437
UK	Academic and program content**	Studies	0.060	3.145
Australia	Employability**	Studies	0.040	2.559
Malaysia	English language support** ₇	Studies	0.190	3.069
Australia	English language support**	Studies	0.034	2.429
Netherlands	English language support**	Studies	0.086	2.134

UK	Multicultural study environment** ₁₃	Studies	0.056	3.057
Australia	Multicultural study environment**	Studies	0.039	2.858
US	Multicultural study environment**	Studies	0.104	2.803
Australia	Program organization* ₄	Teaching	0.076	5.132
Netherlands	Program organization**	Teaching	0.093	2.129
Malaysia	Teaching ability of faculty** ₆	Teaching	0.187	2.62
Ireland	Work experience during studies**	Studies	0.158	2.711
Australia	Academic and program content** ₂	Teaching	0.050	3.376
Germany	Class size**	Studies	0.102	2.783
Australia	Learning support** ₁₂	Teaching	0.030	2.103
Australia	Performance feedback** ₈	Teaching	0.031	2.045
Australia	Physical library**	Facilities	0.038	2.583
Australia	Quality of labs**	Facilities	0.037	2.356
Australia	Work experience during studies**	Studies	0.029	1.988

*p<.001. **p<.05. Numbers indicate Beta value influence for dependent variable “Overall Satisfaction” excluding the covariate of destination country– See Table 3

Institution Recommendation

A multiple linear regression model tested whether the learning variables significantly predicted overall satisfaction. Regression results indicated that 14 learning variables significantly influenced overall satisfaction explained about 14% of the variance ($R^2 = .138$, $F(13, 18,646) = 229.569$, $p < .05$). “Teaching ability of faculty” ($\beta = .058$, $p < .01$), “quality of lectures” ($\beta = .058$, $p < .01$), and “employability” ($\beta = .058$, $p < .01$), predicted more than any other learning variable, institution recommendation, and that only “English of academic staff” ($\beta = -.041$, $p < .01$) negatively influenced overall satisfaction (See Table 6).

Table 6. Learning Variables and Institutional Recommendation

Learning Variables	Category	β	<i>t</i>
Teaching ability of faculty* ₆	Teaching	0.058	5.481
Quality of lectures* ₁	Teaching	0.058	5.445
Employability* ₅	Studies	0.058	5.274
Multicultural study environment* ₁₃	Studies	0.052	5.509
Program organization* ₄	Teaching	0.05	4.973
English of academic staff* ₁₁	Teaching	-0.041	-4.584
English language support* ₇	Studies	0.041	4.211
Academic and program content* ₂	Teaching	0.041	4.049

Work experience during studies*	Studies	0.039	3.779
Virtual learning**	Facilities	0.027	2.583
Learning support** ₁₂	Teaching	0.023	2.328
Level of research activity**	Teaching	0.022	2.281
Career guidance and advice**	Studies	0.022	2.117
Assessment of coursework**	Teaching	0.021	1.996

*p<.001. **p<.05. Numbers indicate Beta value influence for dependent variable “Overall Satisfaction” – See Table 3.

Institution Recommendation & Student Nationality

Linear regression models were performed with the 23 predictors for the 10 most frequent participant nationalities. Results demonstrate that institution recommendation, when analyzed by participant nationality, was influenced by 14 distinct independent variables, with “academic and program content,” and “program organization” being the most frequent variables to significantly influence destination recommendation (See Table 7). “Academic and program content” significantly influenced institution recommendation for German ($\beta = .247$, $p < .001$), South Korean ($\beta = .179$, $p < .05$), and Hong Konger ($\beta = .111$, $p < .05$) students, while “program organization” significantly influenced institution recommendation for Hong Konger ($\beta = .136$, $p < .05$), Malaysian ($\beta = .093$, $p < .05$), and Italian ($\beta = .159$, $p < .05$) students.

Table 7. Institutional Recommendation and Student Nationality

Nationality	Learning Variables	Category	β	t
German	Academic and program content* ₈	Teaching	0.247	4.041
South Korean	Academic and program content**	Teaching	0.179	3.31
Hong Konger	Academic and program content**	Teaching	0.111	2.136
Hong Konger	Program organization** ₅	Teaching	0.136	2.712
Malaysian	Program organization**	Teaching	0.093	2.693
Italian	Program organization**	Teaching	0.159	2.114
Chinese	Teaching ability of faculty* ₁	Teaching	0.078	3.54
Malaysian	Teaching ability of faculty**	Teaching	0.104	2.903
Indian	Teaching ability of faculty**	Teaching	0.137	2.336
American	English of academic staff** ₆	Teaching	-0.228	-2.579
Chinese	English of academic staff**	Teaching	-0.044	-2.363
South Korean	Quality of lectures** ₂	Teaching	0.159	2.717
Malaysian	Quality of lectures**	Teaching	0.093	2.514
Indian	Career guidance and advice** ₁₃	Studies	0.192	3.436
German	Employability** ₃	Studies	0.188	2.56
Singaporean	English language support** ₇	Studies	-0.152	-2.278
American	Grading criteria**	Teaching	0.260	2.189

Singaporean	Level of research activity** ₁₂	Teaching	0.139	2.131
Italian	Multicultural study environment** ₄	Studies	0.230	3.127
Italian	Online library**	Facilities	-0.220	-2.393
French	Quality of classrooms**	Facilities	0.223	1.989
Malaysian	Work experience during studies** ₉	Studies	0.086	2.436

*p<.001. **p<.05. Numbers indicate Beta value influence for dependent variable “Institution Recommendation” excluding the covariate of student nationality– See Table 5.

Institution Recommendation & Destination Country

Linear regression models were performed with the 23 predictors for the 10 destination countries. Results demonstrate that institution recommendation, when analyzed by destination, was influenced by 20 distinct independent variables, with “teaching ability of the faculty,” being the most frequent variables to significantly influence destination recommendation (See Table 8). “Teaching ability of faculty” influenced institution recommendation for the following destinations: UK ($\beta = .046$, $p < .05$), Malaysia ($\beta = .191$, $p < .05$), Germany ($\beta = .089$, $p < .05$), Sweden ($\beta = .171$, $p < .05$), Canada ($\beta = .139$, $p < .05$), and Australia ($\beta = .059$, $p < .05$).

Table 8. Institutional Recommendation and Destination Country

Destination	Learning Variables	Category	β	<i>t</i>
UK	Teaching ability of faculty** ₁	Teaching	0.046	2.287
Malaysia	Teaching ability of faculty**	Teaching	0.191	2.248
Germany	Teaching ability of faculty**	Teaching	0.089	2.139
Sweden	Teaching ability of faculty**	Teaching	0.171	2.078
Canada	Teaching ability of faculty**	Teaching	0.139	1.534
Australia	Teaching ability of faculty*	Teaching	0.059	3.549
Australia	Employability** ₃	Studies	0.042	2.509
Malaysia	Employability**	Studies	0.193	2.179
Netherlands	Employability**	Studies	0.109	2.043
Canada	Employability**	Studies	0.082	0.964
Hong Kong	Employability*	Studies	0.175	3.958
UK	Employability*	Studies	0.086	3.935
UK	Program organization** ₅	Teaching	0.065	3.338
Netherlands	Program organization**	Teaching	0.12	2.76
Ireland	Program organization**	Teaching	0.149	2.641
Hong Kong	Program organization**	Teaching	0.085	2.058
Australia	Program organization*	Teaching	0.061	3.868
USA	Multicultural study environment** ₄	Studies	0.117	2.98
Hong Kong	Multicultural study environment**	Studies	0.075	2.118
Germany	Multicultural study environment**	Studies	0.075	1.996

Canada	Multicultural study environment**	Studies	-0.098	-1.379
UK	Multicultural study environment*	Studies	0.078	4.153
Hong Kong	Quality of lectures** ₂	Teaching	0.136	3.149
Australia	Quality of lectures**	Teaching	0.039	2.439
UK	Quality of lectures**	Teaching	0.044	2.122
USA	Quality of lectures**	Teaching	0.078	1.81
Australia	English of academic staff** ₆	Teaching	-0.048	-3.463
UK	English of academic staff**	Teaching	-0.043	-2.469
Sweden	English of academic staff**	Teaching	-0.173	-2.363
Ireland	English of academic staff*	Teaching	-0.211	-3.955
Germany	Level of research activity** ₁₂	Teaching	0.103	2.655
Hong Kong	Level of research activity**	Teaching	0.09	2.365
USA	Level of research activity**	Teaching	0.056	1.387
USA	Performance feedback**	Teaching	-0.106	-2.398
Canada	Performance feedback**	Teaching	0.117	1.363
Canada	Online library**	Facilities	0.097	1.107
USA	Online library**	Facilities	-0.042	-0.993
Australia	English language support** ₇	Studies	0.049	3.216
Netherlands	English language support**	Studies	0.135	3.139
Australia	Academic and program content** ₈	Teaching	0.032	1.999
UK	Academic and program content*	Teaching	0.083	4.185
Australia	Work experience during studies* ₉	Studies	0.059	3.788
Ireland	Quality of labs**	Facilities	-0.13	-2.098
Ireland	Quality of classrooms**	Facilities	0.16	2.6
Australia	Physical library**	Facilities	0.036	2.227
USA	Learning support** ₁₁	Teaching	0.068	1.58
Hong Kong	Grading criteria**	Teaching	-0.085	-1.966
Netherlands	Expertise of faculty**	Teaching	0.099	2.111
USA	Classroom technology**	Facilities	0.043	0.991
Australia	Career guidance and advice** ₁₃	Studies	0.046	2.913

*p<.001. **p<.05. Numbers indicate Beta value influence for dependent variable “Institution Recommendation” excluding the covariate of destination country– See Table 6.

Discussion & Conclusions

Which aspects of learning impact overall satisfaction the most and why?

Findings from this study determined that international students value teaching variables when considering their satisfaction and whether they would recommend their institution. Indeed, “quality of lecture”, which is a teaching variable, had the most influence on overall satisfaction as well as institutional recommendation.

The value of teaching variables, as opposed to studies and facilities, is clear in their influence on satisfaction. It is compelling that the four most influential learning variables, in terms of influence on overall satisfaction are teaching variables, and indeed 11 out of 14 learning variables that influenced satisfaction were teaching variables. It should be clearly understood that 23 variables were entered into our regression analysis as possible influences for overall satisfaction and institutional recommendation, and of those 23, 11 were teaching variables, 6 were studies and 6 were facilities. Since the primary contact students have with their university is with their professors, it is perhaps no accident that 8 of the 14 most influential variables in terms of overall satisfaction focused on the professors, e.g., “quality of lectures,” “expertise of faculty,” and “assessment of coursework.” These findings are consistent with other studies (e.g., Butt & Rehman, 2010; Elsharnouby, 2015; Sahin, 2014; Wiers-Jenssen et al., 2002) which have found that teaching variables were important determinants of student satisfaction.

Which aspects of learning impact recommendation the most and why?

Variables that have a long-term influence on employment, e.g., “employability,” “work experience during studies” and “career guidance and advice” significantly influenced institutional recommendation (and only employability was found to influence overall satisfaction – more about this below). These findings are consistent with Cubillo et al.’s. (2006) findings that career prospects and opportunities to work during a program of study were significant factors in influencing the decision making process of prospective international students in selecting a university. It is also compelling that the multicultural study environment was found to be so important for overall recommendation which is quite similar to Yu, Isensee, & Kappler’s (2016) research which who found that cross-cultural perspectives and intercultural friendships were highly rewarding experiences among international students.

Another aspect of institutional recommendation that is compelling is the negative impact of “English of academic staff” on institutional recommendation. How an increase in evaluation of a professor’s level of English could have a negative impact on institutional recommendation is something that we cannot really explain and we therefore highly recommend future researchers to examine more closely. One possible explanation for this finding could be that international student’s English language proficiency interacts with the professor’s English proficiency. Indeed, it could very well be that professors might be “too proficient” in English and that might then negatively influence the institutional recommendation. Aligned research by De Jong and Harper (2005) indicates that professors have to not only teach the course’s content, but also teach the language and this is particularly the case – for obvious reasons, when international, non-native English speaking students are in the classroom.

Why might these indicators be different?

While the value of teaching variables was found to be overwhelming important for overall satisfaction, as 11 out of 14 were teaching variables, only eight out 14 variables that significantly influenced institutional recommendation were teaching variables. This difference in terms of which variables were found to differentially influence overall satisfaction compared to institutional recommendation is fundamentally related to the conceptual difference between a judgment of satisfaction which is an emotionally evaluation that occurs as the summation of two cognitive

evaluations – i.e., quality and value. Institutional recommendation, on the other hand, is a behavioral intention which is the summation of quality, value and satisfaction judgments (see Cronin Brady and Hult (2000) for an excellent discussion of the relationship between quality, value, satisfaction and recommendations). Therefore, considering the difference between satisfaction and behavioral intentions, we do not find it surprising that two of the most influential variables that influenced institutional recommendation were those that centered around future employment. Again these long-term considerations are completely in line with Cubillo et al.'s (2006) research which found that work-related factors significantly influenced the decision making process of prospective international students in selecting a university. Looking at aligned research in healthcare, a recent study by Tung and Chang (2009) demonstrated that technical skills of health care providers is more important for recommendations while their interpersonal skills were more important for overall satisfaction. In our research, we might therefore think of those factors that influence students' long-term employability as the technical skills that institutions must provide if they are going to pass the threshold of receiving a recommendation.

As discussed in the introduction, it is clear that an institutional recommendation is different from overall satisfaction (see Cronin Brady and Hult, 2000) and perhaps that difference could lead to a drop-off in responses between satisfaction and recommendation. Indeed, aligned research in the healthcare industry (Cheng, Yang, & Chiang, 2003) demonstrated that there is a drop-off in responding to questions regarding recommendations in relation to overall satisfaction. In fact, in our research, we found that same thing – i.e., more than 8% of the respondents who had completed all the satisfaction questions failed to answer the institutional recommendation question.

What matters across student nationality and why?

Examining the relationship between the learning variables and their influence on overall satisfaction, it is no accident that for four of the 10 most frequent student nationalities quality of lecture was found to significantly influence overall satisfaction, as this variable was found to overwhelmingly influence overall satisfaction across all who completed the ISB. Again, the importance of professors can be seen in this analysis, as 4 of the 11 variables that influenced overall satisfaction when analyzed by student nationality, i.e., “quality of lectures,” “expertise of faculty,” “assessment of coursework,” and “level of research activity.” Interestingly, while looking at these variables by student nationality, it is clear that German students are very much interested in those variables that are professor focused as “quality of lecture” and “expertise of the faculty” were the only variables found to significantly influence overall satisfaction. Looking at overall satisfaction by student nationality allowed us to notice particular patterns, for example that “multicultural study environment,” which was found to influence overall satisfaction across all student nationalities, but that when we look at the 10 most frequent student nationalities, this result was found to be significant only for South Korean and Indian international students.

The reason why these differences exist in those variables for various nationalities is difficult to say, but, what previous research does indicate is that international students are more likely than domestic students to be satisfied with a whole host of services, from music festivals (Lee, Lee, & Wicks, 2004) to e-commerce (Kassim, & Asiah Abdullah, 2010) to airline travel (An, & Noh, 2009) to automobiles to banks to various other industries (Johnson, Herrmann, & Gustafsson, 2002). It could very well be that this “international” bias towards an increase in satisfaction could

be applied to the ISB data, as perhaps those students that truly experience their international studies as international (i.e., different from what they would experience at home) this could help explain some of the results obtained with the ISB.

When looking at institutional recommendation as a function of student nationality, it is quite clear that the variables that influence institutional recommendation are learning content and organizational issues as these were found to be influential for several student nationalities. English of academic staff as well as English language support was found to negatively influence institutional recommendation for American, Chinese and Singaporean international students, and interestingly, “English of academic staff” was found to marginally and negatively influence Malaysian international students ($p=.051$) and negatively influence institutional recommendation for eight of the 10 nationalities. One possibility for this counterintuitive finding is that for those international students for whom English is not a native language could be overwhelmed by the professor’s English language capacities (De Jong & Harper, 2005).

What matters across institution country and why?

For overall satisfaction as a function of destination country, it is perhaps no surprise that learning variables that focus on the quality of professors overwhelmingly influences overall satisfaction for 5 of the 10 destination countries, as “quality of lecture” was found to influence overall satisfaction for those international students attending universities in Hong Kong, Australia, Ireland, the UK and Germany. The absence of the other 5 destination countries in terms of this particular variable is noteworthy and future researchers should help explain our finding.

The absence of 4 destination countries for “employability” and its role in institutional recommendation is likewise compelling, as we found that for international students who studied in Germany, Ireland, Sweden, and USA, “employability” didn’t significantly influence institutional recommendation. This could be the result of country laws that limit the possibility of working in these countries, and future research could very well look at the relationship between employability, institutional recommendation and local employment laws.

Consistent with our previously described findings, when destination country was examined more closely, “English of academic staff” negatively influenced institutional recommendation for those international students who studied in Australia, the UK, Sweden and Ireland. Again, it could be that the English competencies of the professors in these countries are significantly greater than the international students who completed this questionnaire. We cannot underscore enough how important it would be for future researchers to examine more closely the relationship between English language competencies of professors and students and how that might influence satisfaction and recommendations.

Implications for international educators

This study’s findings offer a few recommendations for administrators and policy makers. In an increasingly competitive market recruiting talented international students, institutions must know what influences satisfaction and their propensity to recommend the institution.

It should come as no surprise that this research has significant implications for how universities recruit, train, and retain qualified faculty with the expertise to teach high quality courses that are rich in content. We recommend that recruitment efforts must know that teaching variables, like the “quality of lectures”, are fundamentally important for both satisfaction and recommendation. Therefore, these efforts must be intentional at showcasing the institution’s academic strengths, such as student experiences, achievements, and personal stories that focus on those teaching variables found to significantly increase satisfaction when working with prospective students. If these efforts turned their attention to post-university and the subsequent recommendation process, then they must be intentional at showcasing the institutions long-term job-related successes, e.g., job placement rates, average salaries, work-related experiences during the degree-seeking process when working with prospective students. In terms of retention strategies, institutions must continually assess and improve the teaching environment. In order to improve this environment, we recommend focusing primarily on those teaching variables found to significantly increase satisfaction and recommendation. No other variable had more influence on satisfaction than the quality of teaching, expertise of lecturers, as well as academic content and course organization.

With a rise in the number of international students, academic staff must be encouraged to design courses that are conducive for a diverse group of learners that differ in terms of culture and educational system. This might include adjusting teaching and communication methods that enhance the academic relationship between international students and faculty. From a support services standpoint, institutions must consider placing greater emphasis on programs and services that help enhance the learning experience and future employment processes of international students.

This research has its limitations. One core limitation is that the ISB is a self-report questionnaire, and as with all self-report questionnaires, social desirability bias and the positivity bias can be issues (see Fisher, 1993; King, & Bruner, 2000), such that customers are biased towards reporting that they are more satisfied than they actually are. Another issue regarding the ISB is that it is completed by full-time, on-campus international undergraduate students; therefore, the generalizability of these findings beyond traditional degree-seeking international students is something that must be taken into question. Still another limitation with this research is the fact that of the 185 institutions included in the ISB data sample, nearly 65% of the entire sample was from institutions in two countries – i.e., Australia and the UK. This can have a significant influence on the generalizability of these findings to other international student contexts. Future research must determine whether these results can be generalized to destination countries beyond those included in the ISB.

This study supports the argument that the learning environment is crucially important for satisfaction, while long-term employment issues are fundamental for institutional recommendation. These factors can play a strategic role in enhancing the recruitment, retention, and internationalization efforts for higher education institutions. This study’s findings and implications led to recommendations for international educators, practitioners, and administrators, and offers a comparative baseline for researchers looking to explore the rich benchmarking data on satisfaction and recommendation provided by the ISB.

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Investigating the International Student Experience at Australian Institutions: Implications for University Administrators and Support Staff

Ravichandran Ammigan
Debra Langton

In today's increasingly competitive market to recruit and retain international students, it is critical that institutions of higher education stay current on student perceptions, preferences, and experiences with various aspects of the university environment. Ensuring that students have the right level of support and resources can contribute to their academic, social, and cultural success and directly influence their overall institutional satisfaction and recommendation of the university to prospective applicants.

Based on a previous article by Ammigan and Jones (2018), this study specifically investigates the experience of international students in Australia with respect to their arrival, learning, living, and support services in university environments. Using data from the International Student Barometer (ISB), it examines the relationship between student satisfaction and institutional recommendation for over 21,000 international students at 34 different Australian institutions.

This paper also presents a guide for university administrators and support staff on how to adjust and improve resources and services for international students, which can be an important strategy for enhancing institutional recruitment and retention strategies.

International Students in Australia

As with other leading destination countries around the world, a primary component of higher education in Australia is the cultural diversity of the student population on campus, which presents opportunities for both international and domestic students to interact with peers from different cultural, social, and linguistic backgrounds (Arkoudis et al., 2013). According to the Australian Government's Department of Education and Training (2017), more than 600,000 international students entered Australia in 2017, representing a 13% increase in a single year. International students now make up more than a quarter of all students at certain universities. In 2017, the international student sector generated over AUS\$ 30 billion, making it the country's third-largest export (ICEF Monitor, 2017). It is predicted that Australia will overtake the United Kingdom to become the world's second highest destination for international students in 2019 (Marginson, 2018).

International Student Satisfaction

Improving student satisfaction is one of the major goals and priorities of universities—a satisfied student population can be a source of competitive advantage with outcomes such as student retention, recruitment, and alumni relations (Arambewela & Hall, 2009). Student satisfaction, which generally results from an evaluation of a student’s educational experience, occurs when actual performance meets or exceeds expectations (Elliott & Healy, 2001). In recent years, there has been a growing interest from international educators to gather and utilize international student satisfaction data as a way to influence campus change and strengthen support services for this community (Yu et al., 2016). This is not surprising as the international student experience can be a critical recruitment and retention strategy for providing a high-quality education and remaining competitive in the global student market and world rankings (Shah & Richardson, 2016). In the Australian government’s National Strategy for International Education 2025 report, the importance of the student experience is recognised at Goal 2, with actions that expressly address the delivery of supports that meet or exceed student needs; that build capacity for employment; and encourage a strong international student voice to inform continuous improvement (Australian Government Department of Education and Training, 2016).

Ammigan and Jones (2018) investigated the university experience of over 45,000 undergraduate international students at 96 institutions in Australia, the UK, and the US. They found that several aspects of the international student experience on campus had a significant impact on their satisfaction rating of their overall university experience. Of the four main dimensions of experience, namely arrival, living, learning, and support services, the greatest influence on overall international student satisfaction was the learning experience. As such, the authors suggest that support services offered on campus must also focus on enhancing the learning experience of international students, through initiatives and programs developed jointly by academic departments and student support offices.

Satisfied students are strong advocates

For international students, the decision to choose an institution is based on a number of “push” and “pull” factors, which may influence them to leave their home countries to go study abroad (Banjong & Olson, 2016). Examples of such factors include knowledge and awareness of the host country, quality of education, institutional reputation, tuition and living costs, scholarship opportunities, safety and security, university environment, quality of life, visa requirements and post-graduation employment options (Mazzarol & Soutar, 2002). Mavondo et al. (2004) suggest that institutional recommendation is closely related to satisfaction and that satisfied students are more likely to recommend their institution to potential or future students. It is therefore important, especially from a marketing and recruitment perspective, for institutions to be informed of the factors that might impact international student satisfaction and in turn drive institutional recommendation to prospective students and applicants.

A study on the attitudes, goals and decision-making processes of over 67,000 prospective international students from 193 different countries found that course offerings was the main driver of student decisions on institution and location, with the expectation that the course of study would lead to career prospects (QS Enrolment Solutions, 2018). Reviews and marketing materials

showcasing the quality of teaching and experience of academic staff was the second most influential factor in choosing their institution. The report also shows that prospective students were most concerned about the cost of living and being able to afford their tuition fees. Having a relative or friend in a destination country and receiving information about local culture and customs can help reduce concerns and worries about going to study abroad and impact students' choice of a particular location. Campus safety and a welcoming environment were also important factors in international students' institutional and destination choice.

The Present Study

This study used data from the International Student Barometer (ISB), which is a benchmarking survey that tracks and compares the decision-making, expectations, perceptions, intentions and satisfaction of international students from application to graduation (i-graduate, n.d.). Since 2005, the ISB, which is administered by i-graduate annually, has gathered feedback from more than 3 million students in over 1,400 institutions across 33 different countries.

Satisfaction items were organized in four main sections:

- 1) the arrival section, which assessed students' first impressions and experiences upon arrival to campus
- 2) the learning section, which explored students' academic environment and the aspects of teaching, studies, and facilities
- 3) the living section, comprised of questions around student accommodation, social, and day-to-day life experiences
- 4) the support services section, which focused on services provided by university departments, such as the international office, finance department, career services, health and counseling centers, and campus eating options.

The approach

Over 21,000 international undergraduate students from 34 Australian universities responded to the survey, representing about 14% of all international undergraduate students who studied in Australia that year. Students held 158 different nationalities with 24% from China, 11.7% from Malaysia, and 6.3% from Singapore. The average age of respondents was 23 years old. 58.4% were female, 41.5% were male, and 0.1% identified themselves as Transgender FTM, Non-Binary/Gender fluid/Genderqueer, Indeterminate/Intersex/Unspecified/Other. International students studied in 22 different disciplines at the time they took the survey. A majority was studying Business & Administrative Studies (25.4%) and Engineering (14%). Over 39% stated that they were enrolled in a year other than their first or last year.

Respondents were invited by email to complete the online ISB survey from September to December 2016. De-identified responses were made available by i-graduate to ensure confidentiality of the information.

Findings

Overall Satisfaction

International students were generally satisfied with their overall experience at their institution in Australia. They were most satisfied with their Arrival experience, followed by their Learning experience, Living experience and Support Services experience. Table 1 looks at each dimension of experience individually and indicates which satisfaction variables international students were the most and least satisfied with.

Table 1. Variables with most and least satisfaction

<i>Dimension</i>	<i>Most Satisfied</i>	<i>Mean</i>	<i>Least Satisfied</i>	<i>Mean</i>
Arrival	Accommodation Office	3.17	Making friends with local students	2.86
Learning	Online library facilities	3.27	Work during studies	2.83
Living	Safety and security	3.2	Financial support	2.54
Support Services	Chaplaincy/multi-faith	3.34	Campus eating places	3.05

1 = very dissatisfied, 2 = dissatisfied, 3 = satisfied, 4 = very satisfied

Institutional Recommendation

Most international students at Australian institutions would recommend and encourage other students to apply to their current institution. Those who were very satisfied with their institutional experience were found to actively encourage future international students to apply to their institution. To that extent, those who were very dissatisfied with their overall experience would not recommend their institution to others.

Influence on Overall Satisfaction

All four dimensions of satisfaction, namely Arrival, Learning, Living, and Support Services, were found to have a significantly positive impact on international students' overall university experience. The Learning experience was most influential followed by Arrival Support Services and Living. Table 2 indicates the statistically significant satisfaction variables across all dimensions of experience. The variables that influenced overall university experience for international students were those in the Learning and Living dimensions. No Arrival and Support Services variables were found to be significant on overall university experience.

Table 2. Satisfaction variables that influence overall institutional experience

<i>Variables of Satisfaction</i>	<i>Dimension</i>
Quality of lectures	Learning
Organisation of course	Learning
Suitable accommodation	Living
Academic content	Learning
Quality of external campus	Living
Expertise of lecturers	Learning

Experience local culture	Living
Studying across cultures	Learning
Cost of living	Living
Social facilities	Living
Physical library facilities	Learning
Leading to a good job	Learning
Improve English skills	Learning
Quality of labs	Learning
Eco-friendliness attitude	Living
Access to academic staff	Learning
Social activities	Living
Feedback on coursework	Learning
Making friends this country	Living
Safety and security	Living
Opportunities work/studies	Learning

Influence on Institutional Recommendation

In evaluating which dimensions of satisfaction were most impactful on international students' institutional recommendation, all four were found to be statistically significant. As with overall institutional experience, the Learning experience was most influential, followed by Support Services, Arrival, and Living on recommendation. Table 3 indicates which satisfaction variables across all dimensions of experience were statistically significant. Similarly, the only variables that influenced institutional recommendation for international students were those in the Learning and Living dimensions of experience. No Arrival and Support Services variables were found to be significant on recommendation.

Table 3. Satisfaction variables that influence institutional recommendation

<i>Variables of Satisfaction</i>	<i>Dimension</i>
Making friends this country	Living
Networking	Living
Organisation of course	Learning
Opportunities for work	Learning
Quality of external campus	Living
Teaching ability of lecturers	Learning
Improve English skills	Learning
Immigration advice	Living
Career guidance	Learning
Transport links	Living
Leading to good job	Learning
Quality of lectures	Learning
Financial support	Living
Physical library facilities	Learning
Academic content	Learning
Academic staff English	Learning

What does this mean for student experience professionals?

Implications for Support Staff

The statistically significant variables that influenced overall satisfaction with institutional experience (Table 2) and institutional recommendation (Table 3) fell into two dimensions – Learning and Living. What are the implications of these results for international student support staff?

Overall Satisfaction – What matters most?

- Suitable accommodation
- Quality of external campus
- Experience of local culture
- Cost of living
- Social facilities
- Eco-friendliness attitude
- Social activities
- Making friends this country
- Safety and security

Support programs and services that assist students in settling in and making new friends, with having adequate and appropriate spaces and opportunities to socialise and network, for promoting student safety and personal security will all appeal to students' satisfaction with their experience. These are the things that matter most to international students in terms of their living experience.

Affordable accommodation is also vital, but may not be able to be directly impacted by support staff – however the influence of advocacy and representation in this regard cannot be understated.

The types of programs that have been developed and implemented to enhance student satisfaction include the following (with good practice examples)

- Buddy/peer mentor programs; e.g. Griffith International Student Buddy Program (<https://www.griffith.edu.au/international/plan-your-move-to-australia/international-student-buddy-program>); UNSW Cultural Mentor (Buddy) Program (<https://student.unsw.edu.au/cultural-mentors>)
- welcoming social and cultural events and activities, both on and off campus; e.g. Study Melbourne (<https://www.studymelbourne.vic.gov.au>); Griffith Mates (<https://www.griffith.edu.au/life-at-griffith/griffith-mates>)
- campus and community safety promotion and tips; e.g. Deakin Project StudySafe (<https://blogs.deakin.edu.au/deakinlife/2018/08/27/learn-how-to-be-safe-in-australia-with-studysafe/>); (<https://www.crimestoppersvic.com.au/project-studysafe/>)
- programs on how to manage budgets, live sustainably, and manage time, balancing work, study and social lives; e.g. Swinburne (<https://www.swinburne.edu.au/current-students/student-services-support/international/costs-banking/>), Curtin (<https://international.curtin.edu.au/pre-departure/budget/>)

- maintaining health and wellbeing promotions. E.g. SAHealth (<https://www.sahealth.sa.gov.au/>), UWA (<http://www.student.uwa.edu.au/experience/health/fit/international-student-health2>)

Support staff can work collaboratively with faculty and other academic support areas to provide a framework that recognises specific needs of international students that encompass the Living and Learning environments where they closely intersect, such as career counselling/support, work experience, cross cultural communication and learning environment, library and laboratory facilities. Regular scheduled meetings, inter-departmental shadowing opportunities, attendance at key events and industry briefings and updates can all assist in providing academic and support staff with a fuller picture of international student experiences and impacts, and help to build empathy, understanding and knowledge.

Notwithstanding structure, systems and resources, practitioners are undoubtedly already heavily engaged in some of the activities listed above. Perhaps not as obvious is the nexus between the Living and Learning dimensions, and how a more holistic and one-voice approach to service provision, promotion and review could deliver positive outcomes and word of mouth. A strong and loud voice across the institution, embedded and reinforced, that supports an enhanced international student experience, should provide for a significant positive impact amongst the international student community and their expectations. It would also illustrate that the institution has embraced internationalisation and is committed to providing optimum experiences for all students.

What makes students more likely to recommend?

- Making friends this country
- Networking
- Quality of external campus
- Immigration advice
- Transport links
- Financial support

The variables that most influenced students' propensity to recommend their institution centered around feeling engaged and having ready access to campus and facilities. Again, programs and services that enable connections (for example, engagement with local students and communities, structured networking opportunities) and provide advice and support around finances and visas are critical to students' sense of belonging and subsequent positive advocacy/recommendation. Study Melbourne (<https://www.studymelbourne.vic.gov.au>) is an additional example of this, where international students are encouraged to seek out connections and assistance in support of those offered at their own institution. Emergency loan funds to support students in distress; access to counselling and tailored mental health plans; assistance negotiating legal, accommodation and workplace issues; critical incident management; and advocacy and access to information are all ways that staff can provide specialised support for often bewildered and isolated international students.

A pleasant and accessible physical campus is also important in building that sense of belonging. Support staff who work with international students have a large role to play in providing

appropriate services that highlight and enhance these aspects, or at the very least advocate on student's behalf if these are problematic (e.g. Victorian Vice-Chancellors Committee on student transport concessions); inter-campus transport; driving and road safety information provision, appropriate spaces for mixing and meeting friends, etc.).

Implications for institutional leadership

Senior administrators can assist by understanding and taking appropriate action to enhance the impacts the highlighted variables have on an international student's overall experience and propensity to recommend. The provision of structure, systems and resources that adequately and expertly address areas of concern specific to the international student cohort is vital.

Providing an institutional voice in tackling some of the issues that impact the international student experience is also helpful, such as taking a proactive stance against workplace exploitation of international students; high-level advocacy and lobbying regarding transport and accommodation infrastructure provision and affordability; supporting and creating opportunities for work integrated learning; advocating the benefits of international students to partner employer groups and communities; providing a safe and secure campus and surrounds; and promoting cross-cultural learning and living across campus and in the curriculum.

Conclusion

The Living and Learning experiences of international students are vital for the sustainability and reputation of Australia's international education sector, and this has been recognised in the government's National Strategy. A positive experience in these two dimensions is key to institutional recommendation by an international student who has had a positive experience. These empirical research findings underpin what most practitioners might already know or suspect, and can now provide further support for any necessary adjustments and improvements needed to enhance support services and resources for the international student community on campus. Practitioners can continue to support the enhancement of the international student experience by sharing good practice, identifying issues and coming together to seek remedies and solve problems.

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