

# Explaining International Student Satisfaction

Initial analysis of data from the  
*International Student Barometer*

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## Executive Summary

**Unique Dataset.** This report offers some “big picture” findings from i-graduate’s *International Student Barometer™* (ISB), the world’s largest survey of international student satisfaction for higher education. The ISB helps address a major gap in our understanding of the international student experience. With nearly a decade’s worth of cross-institutional and cross-country data across hundreds of universities and colleges around the world, the ISB complements the primarily small-scale, qualitative literature in the field.

**Booming Market.** In a growing number of countries, international students are big business. In Australia and the United Kingdom, international students already constitute 15-20% of total higher education enrollment. In the United States, international undergraduate numbers grew 70% in the past decade. An expanding middle class worldwide means that for a burgeoning number of people a degree from a foreign university is within reach. From Canada to Japan and China to South Africa, countries are focused on this market, desiring revenue, talent and a more globalized campus. As demand for and supply of international student mobility continue to increase, offering more choice to prospective students, the ISB offers institutions missing perspective on where the experience is working well and less well, and correlations between satisfaction and a host of demographic and other variables.

**Satisfied.** The ISB finds that a significant majority of international students, undergraduate and graduate, are “satisfied” but only a minority are “very satisfied” with their experience overall. There is a close correlation between satisfaction and willingness to recommend the institution, with all the benefits that implies in terms of referrals and strong alumni relations.

**Satisfied, But...** This report looks at selected correlations with international student satisfaction. Key findings include:

- **Satisfaction v. Recommendation Matrix.** Some experience fundamentals appear in good health, others less so. For example, faculty subject-matter expertise, program content and academic/library facilities exhibit a positive combination of high satisfaction and high correlation with recommendation; whereas integration with domestic students and making good career contacts are characterized by high correlation with recommendation but lower satisfaction
- **First Generation Students.** There is a marked negative association between first generation international students and overall satisfaction (0.31), emphasizing that international students are becoming more diverse in terms of academic and language background and may be harder to serve
- **Rankings.** There is little association between overall satisfaction and major university rankings, at undergraduate level. At graduate level, a positive association is more pronounced
- **China Factor.** The ratio of international undergraduates from China, typically the country that supplies by far the largest number of international students per institution, is negatively

correlated (0.57) with integration among international students. This cautions that robust demand from China may have unintended consequences

- **Enrollment Intensity.** The ratio of international undergraduates impacts academics. For example, there is a negative correlation between a higher international student ratio and satisfaction with lecture quality and time with faculty outside class (both 0.29)
- **Nationality.** On average, students from Europe are significantly more satisfied than students from most parts of Asia and the Middle East

These insights should give institutions pause as they reflect on international student strategy, services and recruitment targets. There is no question that greater international student numbers can enhance the experience for all students, as well as the bottom line; but in a high-growth environment, without careful planning, “internationalization” can backfire, undermining academics and social integration. Institutions that fail to heed these lessons risk a negative spiral of low satisfaction, weak referrals and ambivalent word-of-mouth, driving up recruitment costs and tarnishing brand.

Equally, there are institutions that outperform the average, emphasizing that demographics is not destiny. Institutional good practice and innovation can make the difference between an average experience and a great one.

**The Value of the ISB.** Each year, hundreds of universities, college and other postsecondary institutions around the world participate in the ISB. The ISB helps participating institutions:

- obtain an external vantage point on performance to drive reform and innovation
- grow international student numbers or refine fit, with a better understanding of existing decision-making, demographics and satisfaction patterns
- strengthen the student mobility value proposition in the face of alternatives, such as more robust domestic provision, cross-border delivery and distance learning

The more universities and colleges that participate in the ISB, the more valuable the data becomes. For more information about participating in the ISB, please contact:

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**Just the Beginning.** This report marks i-graduate’s commitment to undertake and publish macro analysis of ISB data. The ground covered here is just a selection of possible avenues for further research. We welcome interest from partner institutions in collaborating on future analysis.

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# ***Explaining International Student Satisfaction***

## **Initial analysis of data from the *International Student Barometer***

### **1 Introduction**

What makes for an exemplary international student experience in higher education? This perhaps seemingly simple question is actually very difficult to answer. Variations between individual students and institutions, the range of actors and influences involved, and the multifaceted nature of any student experience caution against any straightforward formula for “success.”

What is clear is that international student satisfaction is far from uniform across universities around the world. For nearly a decade, the *International Student Barometer™* (ISB), the largest survey of international student satisfaction, has found a wide range of average overall satisfaction scores across participating universities, and wider ranges for many components of satisfaction (e.g. integration with host students or aspects of academics). This paper examines some of these ranges and looks at the extent to which other variables (e.g. international student ratios and diversity) help explain them. Now in possession of vast trove of unique data, i-graduate is committed to complementing our work with individual universities and colleges by beginning to analyze our data as a whole, drawing out broader insights relevant to institutions and policymakers.

Why is this analysis important? It is true that international demand at times appears insatiable, and it is not obvious that the experiential particulars at individual schools often make or break recruitment targets, overall quality or institutional reputation. But equally, large scale, cross-institutional and cross-country international student experience research is conspicuous by its absence. The scholarly literature on the international student experience is dominated by small-scale, qualitative and theoretical studies. This literature is immensely valuable, but a large-scale, quantitative perspective represents a significant methodological gap.

It is striking that the major journals in the field, such as the *Journal of Studies in International Education* and the *Journal of Research in International Education* make almost no reference to the *International Student Barometer*. The IDP Database of Research on International Education<sup>1</sup>, covering more than 13,000 books, reports and articles, has a mere ten entries that cite the ISB, most of which are reports produced by i-graduate itself. Even book-length treatments of the international student experience make scant reference to ISB data<sup>2</sup>. The apparent limits of any feedback loop between student satisfaction and recruitment may reflect the paucity of macro analysis of student satisfaction patterns, blunting institutional perspective and student choice.

Today, big picture analysis of ISB data is important for three reasons- competition, changing times and value-for-money.

Worldwide, higher education continues to grow in scale and importance, fueled by the interplay of economic growth, employer and consumer demand, and globalization. Today, higher education

enrollment globally likely exceeds 200 million, representing 100% growth in little more than ten years<sup>3</sup>. Further growth is expected, as more individuals rise out of poverty and aspire to the middle class.

The vast majority of higher education enrollment worldwide remains domestic, but the number of international higher education students, some 4.5 million in 2011, is more than double the 2000 total<sup>4</sup>, and continues to increase. While only c.2% of total enrollment, international students pack a big punch. For institutions, international students represent valuable revenue, often unsubsidized, as well as talent acquisition and a means to enhance the experience for all students. For host governments, international enrollment may support skilled migration strategies or exercises in soft power. In some countries, such as Australia and the UK, around 20% of all students are now international<sup>5</sup>; and many other countries are getting involved in a big way. For example, in 2014, Canada announced plans to double international enrollment in the next decade<sup>6</sup>; while Japan is targeting 300,000 international students by 2020, up from fewer than 150,000 today<sup>7</sup>. China's goal is to go from 200,000 to 300,000 international higher education students by 2020<sup>8</sup>. In the United States, international undergraduate numbers have jumped 70% in the past decade<sup>9</sup>.

International enrollment represents value that in some sense is not available domestically, whether in terms of quantity or quality. Indeed, countries with the most developed higher education systems exhibit minimal resort to international enrollment, save for short periods. Governments that send their best and brightest abroad bank on graduates returning home with valuable skills and ideas, not least to enhance the local higher education sector. Major recent funding efforts include Brazil's scheme to send 100,000 students to study abroad at the world's top universities; and Saudi Arabia's full funding of tens of thousands of students enrolled in universities overseas.

In short, there are more prospective international students than ever before, but those students have unprecedented choice by country and institution. The Internet has vastly increased the volume of information available to prospective students, making it easier for a greater number of universities to reach international markets. This has also created a more crowded market, where negative as well as positive messages about a school can spread rapidly. The rapid downturn in Chinese students in New Zealand a decade ago, following both increased competition from elsewhere and bad publicity associated with the closure of some private colleges, is a good example of seemingly abundant enrollment suddenly changing direction. Student experience reform across New Zealand's tertiary sector is seen as a key driver in the subsequent enrollment recovery<sup>10</sup>.

While some studies predict almost another doubling of international student mobility in the next decade<sup>11</sup>, the relationship between sending and host countries is dynamic. For example, Singapore and Malaysia, historically major exporters of students, have invested heavily in domestic capacity, public and private. The goal is to reduce brain drain, boost local development and seek education hub status. Foreign universities are often part of this transition, establishing brand campuses or other presence in overseas locations as a component of strengthening local higher education. Research suggests that this kind of in-country offering need not disrupt existing student mobility<sup>12</sup>, but enhanced local capacity will mean that many other students may study at home who might otherwise not have done so. Moreover, the likes of Singapore and Malaysia are working to attract large numbers of international students of

their own, again diminishing growth opportunities for traditional mobility to major host countries. For institutions, overseas ventures are often more complex and costly than traditional student mobility; and may prove less impactful for home students, said to be one of the main beneficiaries of an internationalized campus.

Insofar as the maturation of domestic higher education systems worldwide may foreshadow reduced resort to international students, at least from some countries, today's net enrollers of international students would be wise to question the assumption that demand will always exceed supply. As the distinctiveness of international study diminishes in line with increased volume, and greater choice opens up domestically, the need for clear return-on-investment from international study, from both students and governments, becomes more acute. Increased demand also means greater international student diversity, in terms of academic background, language skills and income. In an era of increased choice, insofar as international study presents affordability challenges for students, value-for-money must be compelling and not taken for granted.

The tenor of the literature on the international student experience often implies, amid overall student satisfaction, significant tensions between the theory and practice of international study.

Despite increased supply, demand and information, it is difficult for a prospective international student, or a government, to draw firm conclusions about the international student experience at different institutions. Broader rankings offer some clues but make little direct reference to international students. Alumni may offer insights but intelligence is ultimately patchy and anecdotal, and may be out-of-date. It is also difficult to state clearly what constitutes an exemplary international student experience. Institutions talk up the merits of an international student body but the policies and practices that makes those alleged virtues reality are often less than transparent; or clear in theory<sup>13</sup> but less realized in practice.

This is why *International Student Barometer™* (ISB) data is helpful. The survey offers unique perspective on the international student experience across multiple countries and universities, and has the potential to throw light on some fundamental components of an exemplary experience. Such insights can help students, parents and governments make smarter choices, but also help institutions refine their student experience and boost recruitment efforts.

## **2 Methodology**

This paper is the beginning of a series of studies of ISB data over time. One paper cannot address every possible angle suggested by the full range of ISB data, across hundreds of institutions, and multiple countries and years. To commence the analysis, i-graduate decided to focus on a subset of the data representing about 50 comprehensive universities from three countries (Australia, UK, USA) in one year (2013). These institutions generated over 60,000 international student responses to the ISB in the year concerned. This decision has the benefit at this stage of limiting the institutional and country range in

the sample, with a view to better highlighting experience and population differences. This first report is intended as an initial exploration of the explanatory power of the ISB.

Sample institutions are not named, but Appendix A lists the degree-granting institutions worldwide that participated in the ISB in 2013, from which the sample is drawn. All institution-specific ISB data is confidential to the participating institution. Sample institutions are representative of the university sector in each of the countries concerned, in terms of mission and size.

Future reports will include additional institutions and types of institution, and additional countries. Changes in ISB data over time will also be factored in.

The goal of the analysis is to gauge which variations in international student satisfaction may be explained by data captured in the survey or other available data, as opposed to variables beyond the survey, such as institutional policies and practices.

Examples of available data that may explain portions of satisfaction variance include international student numbers, growth, intensity, mix and diversity, student level and field of study, institutional location and ranking, national visa and employment regulations, student funding sources, student family and education background, use of certain institutional services, and student use of an education agent or enrollment in a pathway program. Some of these correlations are explored in the present report, while others are reserved for later reports.

There is no question that factors beyond those captured by the ISB or other available data influence student satisfaction. i-graduate continues to work with institutional clients to better understand policies and practices that make a difference, and such insights will be considered in later reports. i-graduate successfully bid to run the annual operational benchmarking study conducted by the Australian Universities International Director's Forum (AUIDF), with the possibility of extending benchmarks to universities in other countries. Ultimately, student satisfaction is too complex and multifaceted to be reduced to any formula, however sophisticated. Indeed, student satisfaction may not always be synonymous with exemplary experience; some students may express satisfaction with a less academically demanding experience, for example, and vice versa. In most cases, students study at a non-domestic institution only once, and are rarely in a position to directly compare the experience between institutions and countries.

Such caveats aside, the sheer scale of ISB data- hundreds of universities and colleges, over one million students surveyed, multiple countries and years- cannot be ignored. Even the sample used in the present report- near 50 universities, three countries, over 60,000 international students- is much more robust than the single institution or even single class samples typical in the literature. ISB data cannot answer every question about the international student experience, but opens up promising new avenues for analysis.

This report explores correlations between different ISB variables. Correlation is expressed using the coefficient of determination, or  $R^2$ , a standard statistical means to test relationships between variables.

The coefficient of determination ranges between zero (no relationship) and 1 (perfect correlation). Of course, correlation need not imply causation, a key issue we will return to at various points.

### 3 Range of satisfaction scores in the sample

The i-graduate *International Student Barometer™* measures satisfaction, both overall and components, on a 4-point scale:

- 4= very satisfied
- 3= satisfied
- 2= dissatisfied
- 1= very dissatisfied

For “Overall Satisfaction”, as shown in Figure 1, the 48 institutions in the sample ranged between a high of 3.30 and a low of 2.88 for international undergraduates, and a high of 3.25 and low of 2.88 for international graduate students.

**Figure 1. Schools exhibit a range of performance on international student satisfaction**

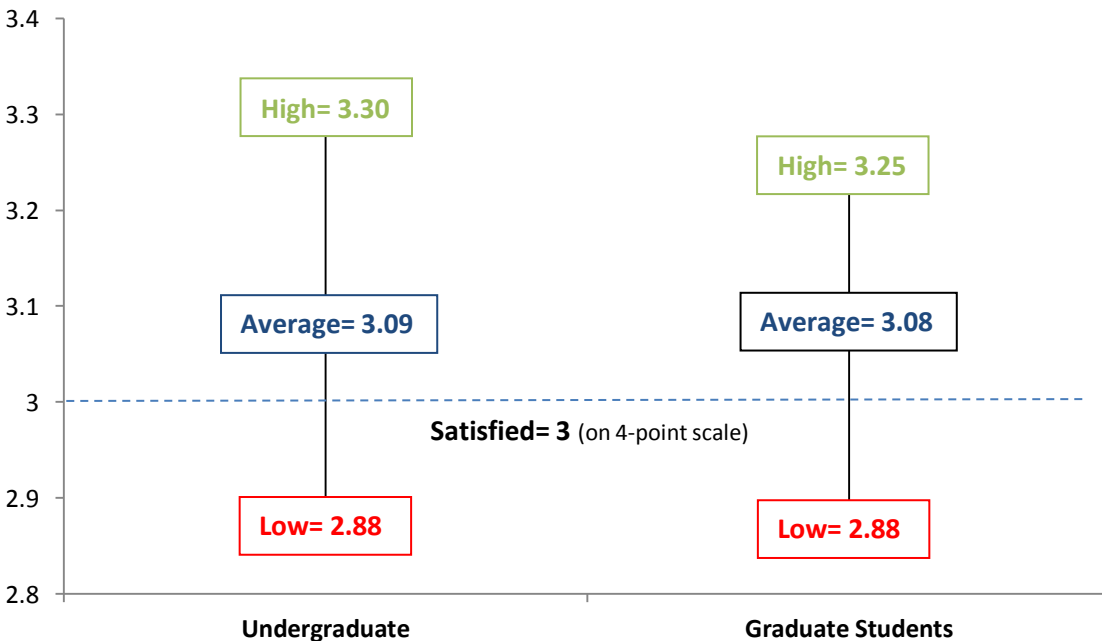


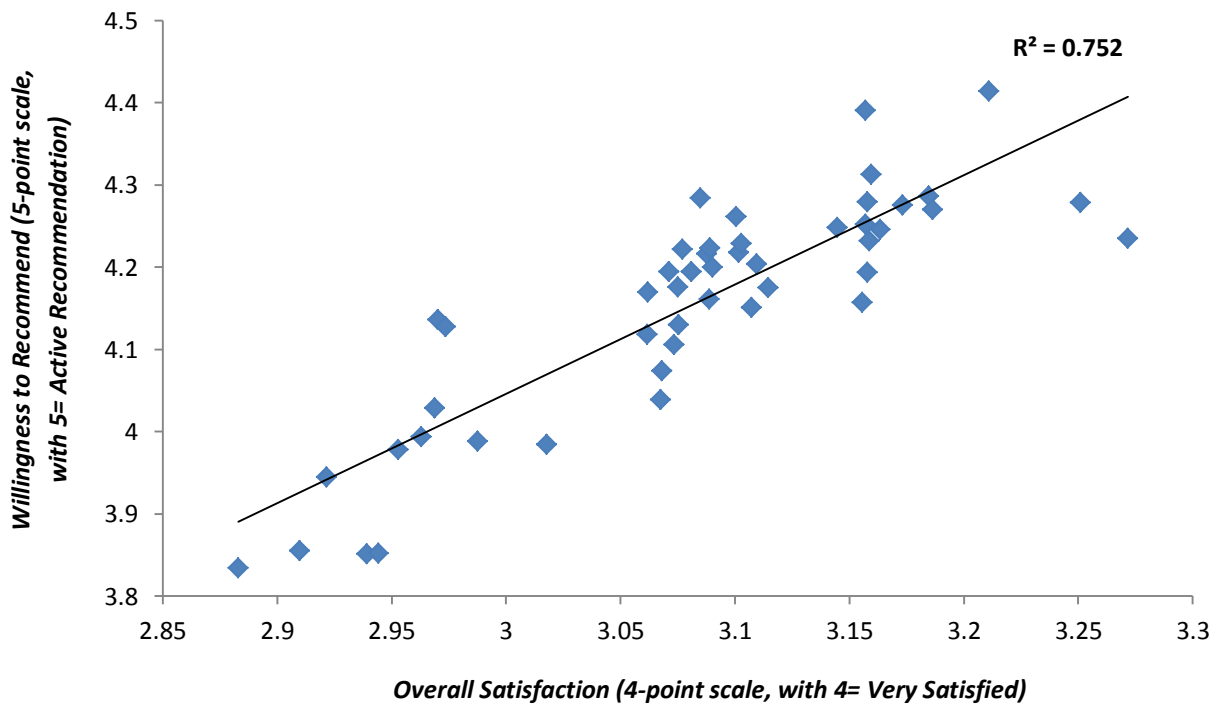
Figure 1 emphasizes a number of things. Firstly, a large majority of international students, undergraduate and graduate students, are at least “satisfied” overall. The ISB is deployed primarily by institutions with significant experience serving international students, so one would not expect to see



performance below, say, 2.5 on a macro satisfaction question. Equally, even the best performing sample school is 25% short of the maximum possible score, suggesting that ensuring a consistent student experience across large numbers is challenging, and that all schools have room for improvement. Only a minority of international students are “very satisfied”. Finally, the gap between the highest and lowest average satisfaction score is 14% and 12% of the scale for undergraduates and graduate students respectively. Again, one would expect a competitive range across a group of significantly similar kinds of institution.

The value of the ISB is less the exposure of any large absolute gap in performance between universities but rather to highlight the significance of a relative gap. One way to illustrate that significance is the close correlation between overall satisfaction scores and the willingness of international students to recommend the institution- Figure 2. This chart concerns all international students by level. Each dot represents an institutional average.

**Figure 2. Satisfied international students are great alumni ambassadors**



This close positive association between satisfaction and willingness to recommend, explaining 75% of the variation in Figure 2, points to the long-term implications for institutions of stronger rather than weaker satisfaction. Those institutions that achieve higher satisfaction ratings can rely upon more graduates to be active ambassadors, enhancing word-of-mouth and referrals, and reducing marketing and recruitment costs. More satisfied students are also more likely to be active and generous alumni.

Each institution has its own conception of international student enrollment and fit, and its own goals for growth and refinement; but all institutions want to make the most of that investment. All institutions want to do everything they can to ensure that international student satisfaction aids rather than hinders recruitment efforts, alumni outreach and brand overall. Analysis of ISB data offers institutions insights into how to avoid trailing a very competitive peer group, and how to move beyond average.

However, the very nature of the “Overall Satisfaction” question makes diagnosis particularly challenging. The sheer number of possible variables that might influence responses to such a question means that uncovering large coefficients, coefficients that explain a significant amount of variation between institutions, is unlikely.

The ISB asks international students about their satisfaction on a wide range of arrival, learning, living and support components, over 100 in all. Of course, on average, some components are more important to international students than others. Figure 3 encompasses 41 selected components by category and indicates correlation with average recommendation score by institution. This shows the extent to which satisfaction on a particular component is correlated with willingness to recommend the institution, the ultimate indicator of satisfaction. The table suggests that there is a wide range of importance ascribed to different aspects of the international student experience. Figure 3 concerns undergraduates only.

Correlation ratios should be read as follows: the higher the ratio, the closer the correlation with average recommendation scores at institutional level. In other words, a high ratio indicates that the experience component in question is a significant driver of recommendation. By contrast, components weakly correlated exhibit a range of satisfaction that implies a limited relationship with recommendation.

**Figure 3. Some aspects of the international student experience are more important than others**

Experience Component	Category	Correlation between Average Satisfaction and Overall Recommendation at Institutional Level
Subject expertise of faculty	Faculty	0.60
Good contacts	Career	0.60
Academic content of program	Program	0.56
Organized social activities	Social	0.55
Ability to understand faculty English	English	0.52
Visa/immigration advice from school	Services	0.51
Lecture quality	Faculty	0.50
Worship facilities	Services	0.48
Time with faculty outside class	Faculty	0.47
Level of institutional research activity	Research	0.46
English language skills	English	0.46
Smooth running of program	Program	0.43

Teaching ability of faculty	Faculty	0.42
Host friends	Social	0.42
Social facilities	Social	0.40
Online library	Library	0.37
Making friends with other international students	Social	0.37
Physical library	Library	0.36
Cost of living	Cost	0.36
Broader campus physical environment	Campus	0.35
Sports facilities	Campus	0.31
Safety	Social	0.29
Quality of lecture theaters/classrooms	Campus	0.28
School surroundings	Surroundings	0.21
Design/quality of campus buildings	Campus	0.19
International Office	Services	0.19
Learning that will help me get a good job	Career	0.19
Coursework feedback	Assessment	0.18
Internet at accommodation	Technology	0.18
Transport- to locations beyond institution	Transport	0.16
Home friends	Social	0.15
Cost of accommodation	Cost	0.15
Career advice from faculty	Career	0.13
Ecofriendly- institutional practices	Services	0.12
Class size	Program	0.11
Learning Management System (LMS)	Technology	0.08
Health Center	Services	0.05
Campus food	Services	0.05
Ability to earn money	Cost	0.04
Availability of financial support from school	Cost	0.02
Students' Union	Services	0.01

Figure 3 demonstrates that many experience components are positively correlated with recommendation, but some much more so than others. Not surprisingly, a number of academic components exhibit amongst the strongest correlations, with faculty subject matter expertise topping the list. However, it is striking to see a number of non or less academic components also highly correlated, such as “Good Contacts” (i.e. is the student satisfied with their university network with a view to career development), social activities organized by the institution and visa advice. The value placed on organized social activities speaks to integration concerns expressed by many international students, discussed later in this report. Sound visa advice is obviously is obviously fundamental to the international student, and difficulties can be very disruptive.

Cost and most services components are only weakly correlated with recommendation. As discussed below, cost items exhibit among the lowest rates of satisfaction on the survey but weak correlation with recommendation indicates that most students see cost as challenging from a pragmatic point of view but not as fundamental to the quality of the experience as a whole. In terms of services, weak correlation suggests that many are ultimately peripheral or as-needed rather than essential to the experiential core. Satisfaction with services is only asked of students who report having used a particular service. Low use of certain services may be the bigger issue on many campuses.

The fact that “Coursework feedback” achieved only 0.18 may indicate not that most international students are necessarily content with such interaction or regard it as of low importance but rather tend to “blame” their own shortcomings for any missteps rather than institutional practice or faculty policy. Much higher correlation for faculty expertise and teaching ability, lecture quality etc., might be interpreted as many international students seeing ultimate value in the more formal and visible aspects of the learning experience (expert faculty, research activity, learned lectures), and giving less thought to the subtleties of assessment. Many international students may be “unwilling” to admit that a first-rate faculty member in terms of research and publications may not be as well-positioned to work with a range of international students one-on-one.

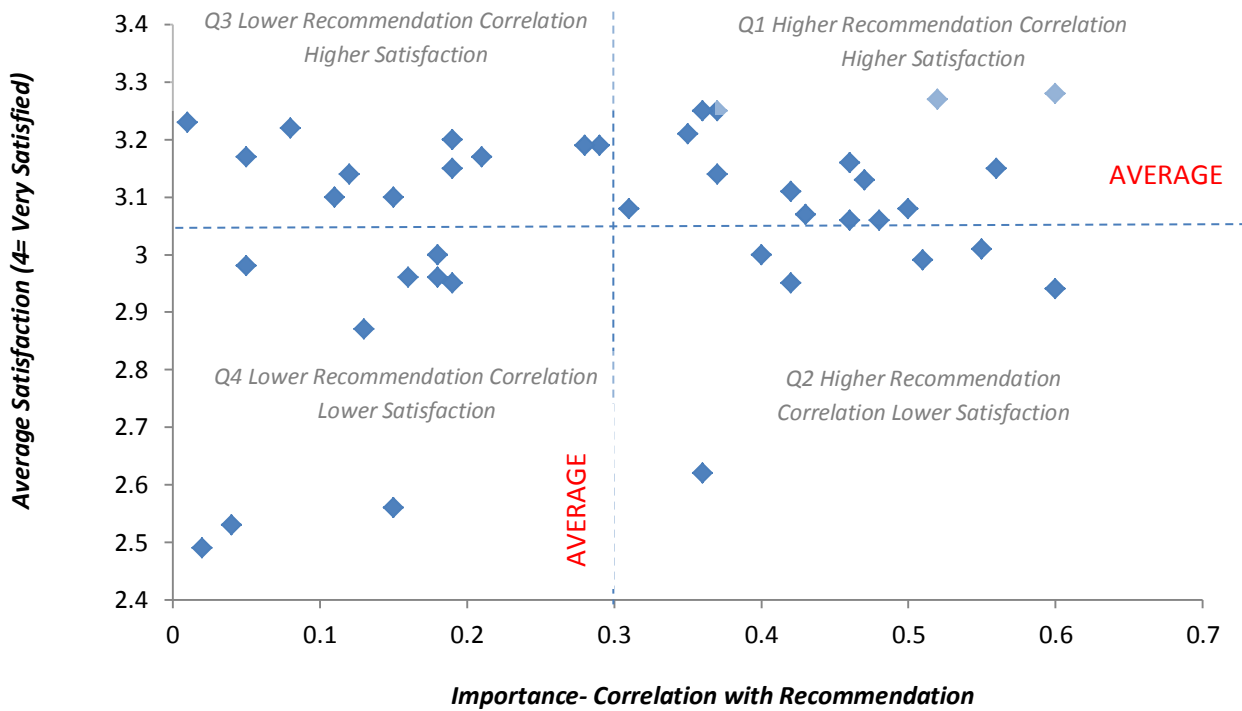
It is interesting to see both physical and online library mid and similarly ranked in terms of correlation. Much discussed aspects of the learning experience, the LMS and class size, both receive low ratings, suggesting that faculty teaching ability and broader program character are much more influential.

The fact that even the most correlated components achieve only 0.6 is a reminder that the international student experience is multifaceted, and no one component alone dictates satisfaction.

Figure 3 gives a sense of the relative importance of different experience components. Figure 4 adds the dimension of relative satisfaction. A particular component might be highly correlated with recommendation but exhibit a below-average satisfaction score. Figure 4 divides the selected components from Figure 3 into four quadrants:

- Quadrant 1: Higher correlation with recommendation, higher satisfaction
- Quadrant 2: Highly correlation with recommendation, lower satisfaction
- Quadrant 3: Lower correlation with recommendation, higher satisfaction
- Quadrant 4: Lower correlation with recommendation, lower satisfaction

**Figure 4. Recommendation and Satisfaction coordinates highlight innovation opportunities**



Space does not permit full labeling of Figure 4. Appendix B consists of a table showing both recommendation correlations and average satisfaction across all 41 experience components in Figure 4.

In summary, experience components in Q1 exhibit above-average satisfaction and above-average correlation with recommendation. These are areas, in general, where international undergraduates see significant value and give universities high marks. Examples include subject matter expertise of faculty, academic program content and ability to understand faculty English. These components are the heart of the student mobility value proposition, and perception of their relative absence can severely hamper marketing and recruitment.

Components in Q2 are also highly correlated with recommendation but satisfaction is below average. These are areas where institutions could improve, and anticipate enhanced recommendation levels as a reward. Examples include “making good contacts”, friendship with domestic students, organized social activities and visa advice. In many cases, these are aspects of the experience where international undergraduates desire greater structure and institutional action.

Q3 features components that score above-average on satisfaction but are less than decisive when it comes to recommendation. These are relevant ingredients for a successful international undergraduate experience but are best characterized as background infrastructure that needs to be maintained but in most cases offer little scope for experiential enhancement or competitive advantage. Examples include LMS, classroom quality, the International Office and institutional surroundings.

Q4 consists of components where students are less satisfied but the correlation with recommendation is modest. Examples include career advice from faculty, academic programs linked to career development, feedback on coursework and most cost items. As discussed above, high cost can be a practical challenge for many international students but is widely accepted as inevitable. The career and assessment items, however, point to components that either are or should be of great importance to international students but where expectations are perhaps often low or, in the case of assessment, the student may not have a clear sense of good practice. To some extent, particularly undergraduates may regard career matters as ultimately their own affair or a far off question, and rely on the institution for academics first and foremost. There may be an assumption that the average faculty member will not have detailed knowledge of the job market in related professions across multiple countries, however desirable that might be. On assessment, many international students may see the issue as striving to keep up rather than an expectation of differentiated support. Arguably, these career and assessment items offer institutions significant scope for experience enhancement and competitive advantage.

Figure 4 offers institutions valuable perspective on how different components of the international student experience line up with satisfaction and recommendation, on average. By participating in the ISB, individual universities and colleges are able to gauge the situation for their institution specifically.

#### 4 Overall International Student Satisfaction: examples of relative correlation

An important first step in trying to explain variation in average satisfaction among international students at different universities is to eliminate variables that appear to have little or no correlation with satisfaction. Figure 5 lists a number of such variables.  $R^2$  values of 0.15 or below, explaining no more than 15% of observed variation, were included. Some of these variables may be useful in multivariate regression but in isolation offer at best limited explanatory power.

**Figure 5. Rankings, ratios, field of study concentration, gender and secondary school weakly correlated with satisfaction**

Variable	Correlation	Direction
Highest ratio of international undergraduates in a major field of study	0.15	Higher ratio, lower satisfaction
Ratio of international students (undergraduate)	0.11	Lower ratio, higher satisfaction
Ratio of international undergraduates who previously attended a private or international secondary school	0.10	Higher ratio, higher satisfaction
International graduate student distribution by major field of study	0.08	Higher standard deviation of percentage distribution, lower satisfaction
Rankings (Shanghai Jiao Tong)- undergraduates	0.07	Higher ranking, higher satisfaction
Ratio of international undergraduates to graduates	0.07	Higher undergraduate ratio, higher satisfaction
Ratio of international students (graduate)	0.02	Lower ratio, higher satisfaction
Gender	0.0003	Higher female ratio, higher satisfaction

Some of the items in Figure 5 merit further discussion.

Let's start with rankings. A plausible assumption might be that international rankings of universities would align with international student satisfaction- "better" institutions produce more satisfied students. To test this, i-graduate elected to use the Shanghai Jiao Tong *Academic Rankings of World Universities*, which ranks 500 institutions in terms of research publications, citations and awards. Most sample institutions were ranked on the latest list (2013), and those that were not were assigned a notional ranking of 600. Schools ranked 101-500 are assigned to a range rather than an individual ranking, so i-graduate assumed a rank at the mid-point of the range. Of course, availability of specific rankings for all schools inside and outside the top 500 might change the association with international student satisfaction.

As a comparison, i-graduate also gathered the positions for sample schools on the QS World University Rankings 2013. QS encompasses a greater number of variables than Shanghai ranking, including a

somewhat greater focus on teaching and 5% allocation for proportion of international students. The QS ranking also offer specific placement from 1-400, and ranges up to 700. Despite these differences, the correlation between QS rankings and undergraduate satisfaction was very similar to the Shanghai coefficient.

The absence of a stronger rankings correlation, at least at undergraduate level, in part speaks to the counter influence of some expensive but lower or not ranked universities, and schools that are highly ranked but have expanded international numbers to the point that greater student diversity is visible. Expensive but lower ranked institutions resemble higher ranked institutions in terms of undergraduate student profile, but may or not resemble higher ranked institutions in terms of satisfaction. Similarly, higher ranked institutions with large and more diverse international enrollment complicate any association with satisfaction.

Limited correlation between overall satisfaction and institutional type (with ranking as a proxy) raises the question of student type. Might only modest correlation between rankings and satisfaction speak to student diversity? Lack of a strong correlation might reflect different students finding satisfaction with institution that are the right “fit” rather than any absolute measure? Indeed, student background, explored later in this report, exhibits a much stronger relationship with overall satisfaction.

A negative coefficient of 0.11 for undergraduates and 0.02 for graduate students in terms of international student ratios and overall satisfaction offers reassurance that enrollment intensity alone is not a major determinant. The higher undergraduate correlation cautions that intensity can be problematic, and may be indicative of recent rapid growth in international numbers at many universities, but ultimately other variables are more important. This issue is explored further in the next section when we consider ratios by nationality.

The positive 0.10 coefficient for satisfaction and the ratio of international undergraduates who attended an international or private secondary school immediately prior to enrollment is one proxy for student background. Many international students attended a university or college prior to study abroad, obscuring details of their secondary education. This limits the observable influence of this variable. As discussed in the next section, parental education appears to have a stronger association with overall satisfaction.

One perspective not shown in Figure 5 is year of study. Is there any relationship between satisfaction and year of study? Are first year students most satisfied, for example, and then the “honeymoon” is over, or is higher satisfaction the fruit of experience over time? Figure 6 shows the movement in average satisfaction among international undergraduates between first and final year.



**Figure 6. Final year international undergraduates typically less satisfied than first years**

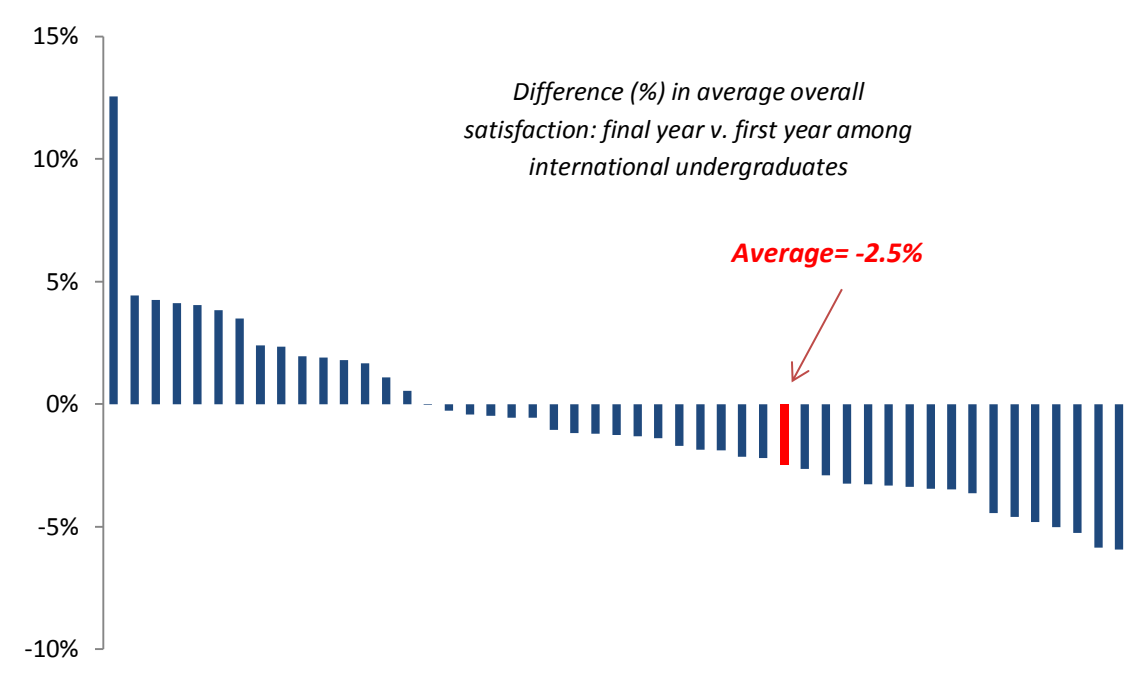


Figure 6 suggests, firstly, that average overall satisfaction does not vary significantly, at most institutions, between first and final year undergraduates, and secondly, that most final year undergraduates are somewhat less satisfied than their first year counterparts. This may reflect the perhaps inevitable waning of initial enthusiasm upon arrival, or perhaps greater emphasis on services and support for new students. From an institutional perspective, the goal might be to strive for higher satisfaction over time, as student familiarity with the institution and vice versa grows. The significant literature on the “adjustment” process for international students offers useful guidance on good practice but tends to imply that any long-term “adjustment” is often in part a matter of settling for more limited integration into the host culture than first imagined<sup>14</sup>. Of course, this data does not compare average satisfaction for the same cohort in their first and then final year. Such a comparison could be made by comparing ISB data over time, but is beyond the scope of this paper.

Field of study concentration exhibits the strongest correlation in Figure 5- 0.15, explaining 15% of variation in overall undergraduate satisfaction. Across the sample, the average highest ratio for international undergraduate enrollment in a major field of study was 32%, generally much higher than the norm for domestic students in the sample. While 0.15 is not a large correlation, it does speak to the dangers of “over-enrolling” from one country, which may then lead to limited distribution across disciplines. See Figure 10 for further discussion.

The next task is to examine selected variables that are more strongly correlated with international student satisfaction overall- Figure 7.

**Figure 7. Parental education, rankings for grad students more strongly correlated with satisfaction**

Variable	Correlation	Direction
Ratio of all international students with no parent with a degree	0.31	Higher ratio, lower satisfaction
Rankings (Shanghai Jiao Tong)- graduate students	0.26	Higher ranking, higher satisfaction

It is not surprising to see a larger coefficient for institutional ranking and overall graduate student satisfaction. The Shanghai Jiao Tong ranking is heavily weighted towards research metrics, which are obviously of greater relevance to graduate students. It is fair to say that in many fields first-rate research capabilities are concentrated in a relatively small number of institutions, to a much greater extent than instructional excellence at undergraduate level. As noted above, the availability of more precise rankings outside the top 100 would enable further refinement of this correlation. Another angle for investigation would be to disaggregate Master’s and doctoral students. The QS rankings produced a lower correlation, consistent with a less-research focused methodology. Figure 8 displays the spread of institutions on the Shanghai ranking and overall graduate satisfaction.

**Figure 8. Concentration of research excellence visible in graduate student satisfaction**

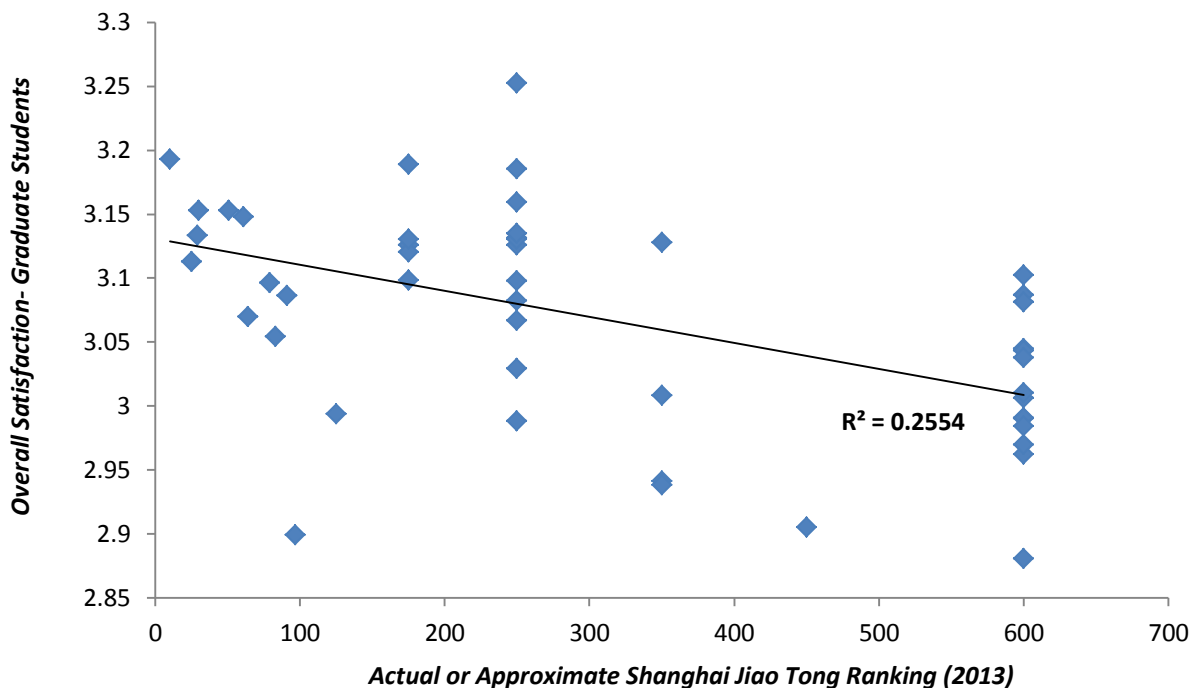
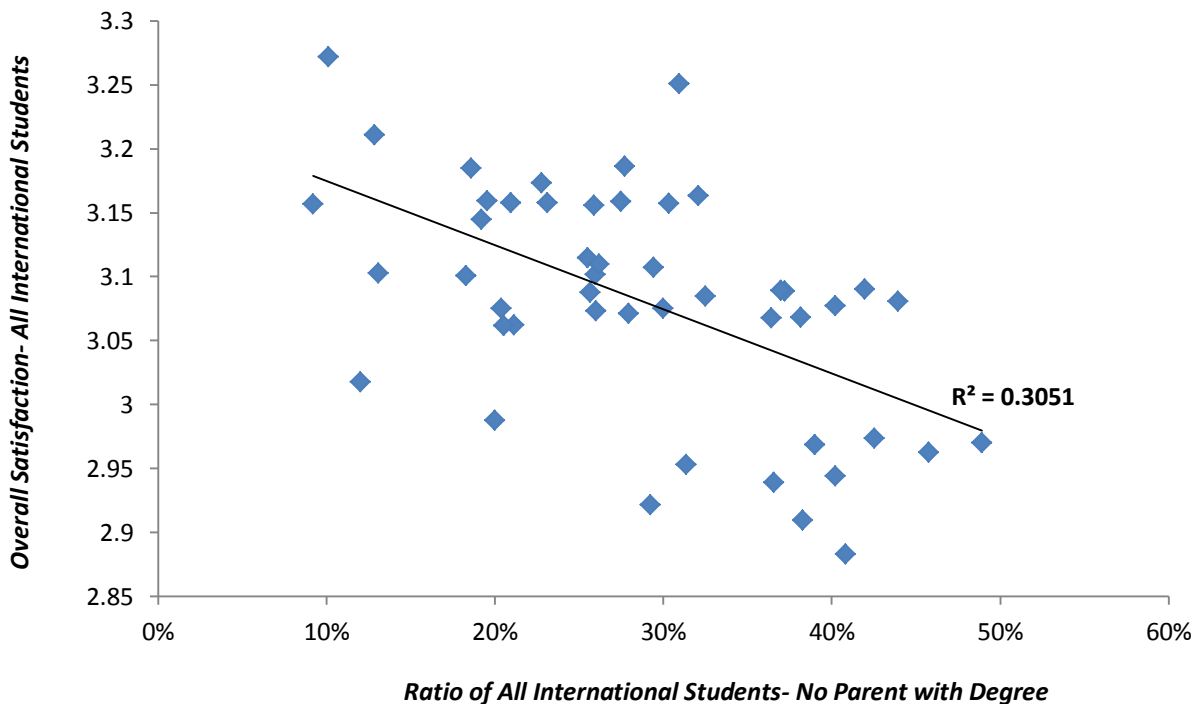


Figure 8 emphasizes that ranking still explains only a minority of overall satisfaction variation. The bulk of variation is shaped by other influences, no doubt including policies and practices at institutional level beyond the scope of the ISB. There is also, as discussed above for undergraduates, the question of student as well as institutional diversity, and the matter of “fit” between the two. This leads us to the 0.31 correlation between overall satisfaction and the proportion of international students with no parent educated to degree level.

The ISB does not seek information on student or family income, not least given the challenges of multiple currencies, exchanges rates and purchasing parity. Income data would permit examination of whether, say, students from poorer backgrounds are less able to benefit from the experience in the round and are therefore less satisfied; or whether students fully funded by government or other scholarships are less burdened by financial pressures and are more satisfied than average. The survey does capture certain proxies for income and related matters. For example, the survey asks international students whether either parent has a degree, and most recent prior education institution.

Figure 9 shows the institutional distribution of overall satisfaction and parental education. The ratio of international students without a parent educated to degree-level ranges from <10% to almost 50%.

**Figure 9. Students from less “traditional” family backgrounds are less satisfied**



How should Figure 9 be interpreted? Why would parental education be correlated with international student satisfaction? If one accepts that degree-level education is a decent proxy for familiarity with higher education and above average income, the data suggests that international students without at least one parent educated to degree-level are more likely to be culturally, academically and financially disadvantaged, which may lead to a less rounded and more problem beset experience, and lower satisfaction. It should be stressed that the difference in average satisfaction is relative, with all institutions within striking distance of the “satisfied” threshold.

There is a 0.41 negative correlation between Shanghai Jiao Tong ranking and ratio of all international students without a parent educated to degree-level. This makes sense insofar as international students without a degree-educated parent are more likely to attend lower ranked institutions. This is contrast to the 0.26 correlation at graduate level between ranking and satisfaction, and 0.07 at undergraduate level. While ranking and price/cost of living are not fully aligned, many highly ranked universities command premium prices for unsubsidized students and are located in expensive urban settings.

But why is there a much stronger association between ranking and lack of a parental degree (0.41) than ranking and overall satisfaction (0.13 for all international students), if lack of a parental degree is strongly correlated with satisfaction (0.31)? The answer is that ranking alone obscures individual institutional characteristics that shape satisfaction. Some such characteristics pertain to institutional policies and actions, beyond the scope of the ISB, but others concern price or enrollment volume/mix that make a low ranked institution otherwise resemble a higher-ranked one, and vice versa. Schools that charge high tuition but are not highly ranked tend to exhibit a low ratio of international students without a parent educated to degree-level, while some highly ranked universities with very large numbers of international students have achieved that scale through enrollment diversification. In summary, parental education is a sharper lens to understand student satisfaction than ranking alone.

There may also be a more general institutional factor. An international student body with a high proportion of students who are the first in their family to enter higher education may be more challenging to serve than a more acculturated population. Student language and academic skills may be poorer, demanding greater faculty and service input. If such responsiveness is not forthcoming, or simply fails to reach every student, these less “traditional” international students may emerge less satisfied. One might counter that, in general, lower ranked institutions may be more geared up so serve disadvantaged students across the board, domestic and international. This may be often be the case but does not take away from the fact that such students are inherently more challenging to serve, and many such students may have below-average cultural and financial capital to fully take advantage of their time abroad.

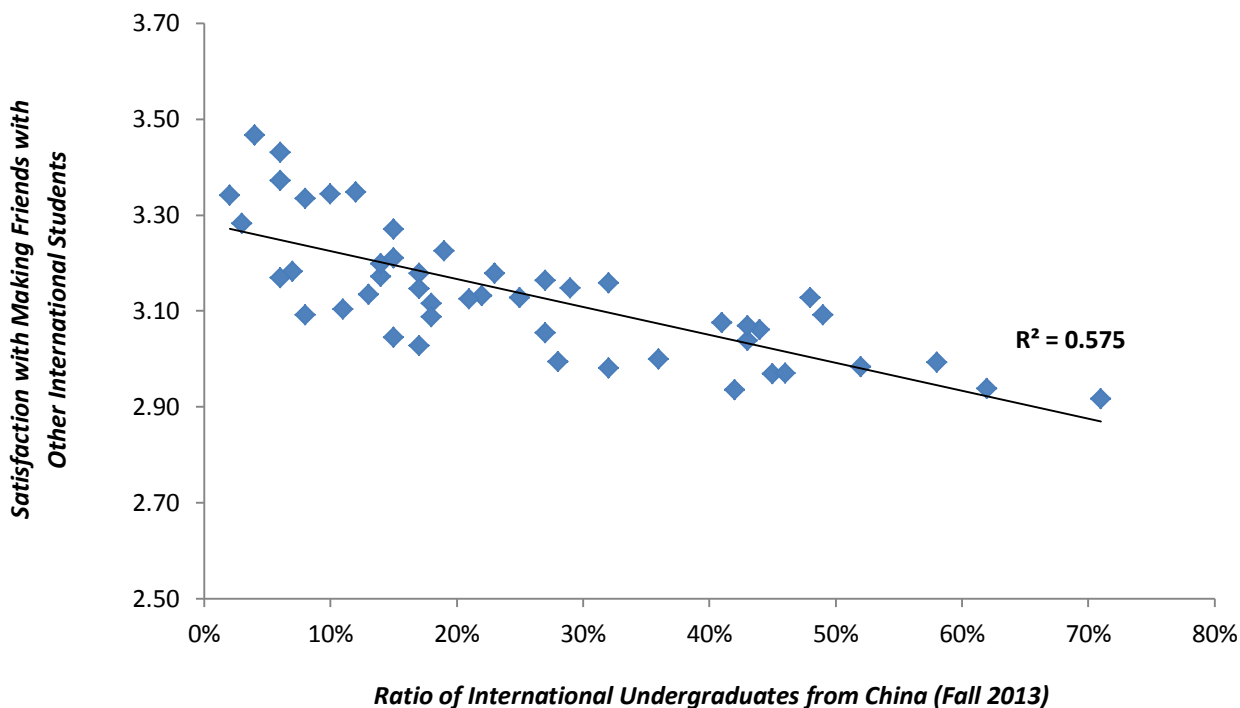
## 5 Examination of select components of satisfaction: integration and academics

The next section of the report considers selected correlations for components of satisfaction. The most striking correlations concern relative concentration of international students overall and by nationality, and their impact on satisfaction with integration and aspects of academics.

Across our sample, the ratio of international undergraduates from one country ranges from 6% to 71%, with an average of 28%. However, the correlation with overall satisfaction is negligible- just negative 0.08. At most sample institutions, the largest nationality is Chinese. But again, the correlation with overall satisfaction is still small- negative 0.12.

When the impact of enrollment concentration on integration is considered, the correlation is more pronounced. A higher China ratio is negatively associated with making friends with domestic students, but only at 0.14. However, as shown in Figure 10, the correlation with making friends with other international students is much larger.

**Figure 10. Large numbers of Chinese students inhibits integration across nationalities**



Almost 60% of the institutional variation in Figure 10 in terms of satisfaction with making friends with other international students appears to be accounted for by the ratio of international undergraduates from China. The higher the China ratio, the lower the satisfaction. Indeed, the correlation between highest single nationality ratio and satisfaction with making friends with other international students is 0.32, emphasizing that excessive concentration is a significant variable regardless of nationality<sup>15</sup>. This

ratio is lower than the China ratio because the nationalities concerned are often smaller in size compared to the Chinese, and are more diverse, including some largest groups that are native English speaking and might be expected to constitute a weaker “group effect” and no more than a modest sense of difference.

It is well-known that the number of Chinese students, undergraduate and graduate, has grown markedly over the past decade. There is a certain efficiency, given the size of the population, in foreign universities taking full advantage of this interest in recruitment terms, but it comes at a price. Enrolling 30-70% of international undergraduates from one country undermines the notion of an internationalized student body that most institutions tout as a benefit of studying abroad, and a benefit for domestic students. A high ratio of Chinese students by definition means fewer students from other countries, and perhaps fewer countries represented overall. Enrollment alongside a large number of compatriots recreates a “home” environment and weakens the need and opportunity to seek friends and experiences elsewhere.

It is interesting to note that there appears to be no correlation between the Chinese ratio and satisfaction with making friends with domestic or other international students among Chinese students themselves. This may reinforce the self-sufficiency challenge of enrollment of large numbers of students from one country. Even if Chinese students themselves feel over-represented on many campuses, there may also be a certain comfort with the situation.

Let’s now look at academics. A negative impact of a high Chinese ratio does not extend to academic areas, with the exception of “Studying with people from other cultures”, where there is a negative correlation 0.41 across all undergraduates. However, a substantial influence for the overall international undergraduate ratio is observable. This suggests that international undergraduate ratios in general, regardless of any dominance by one nationality, affect the academic experience. Figure 11 looks at satisfaction with lecture quality.

**Figure 11. A higher international student ratio puts strain on lectures**

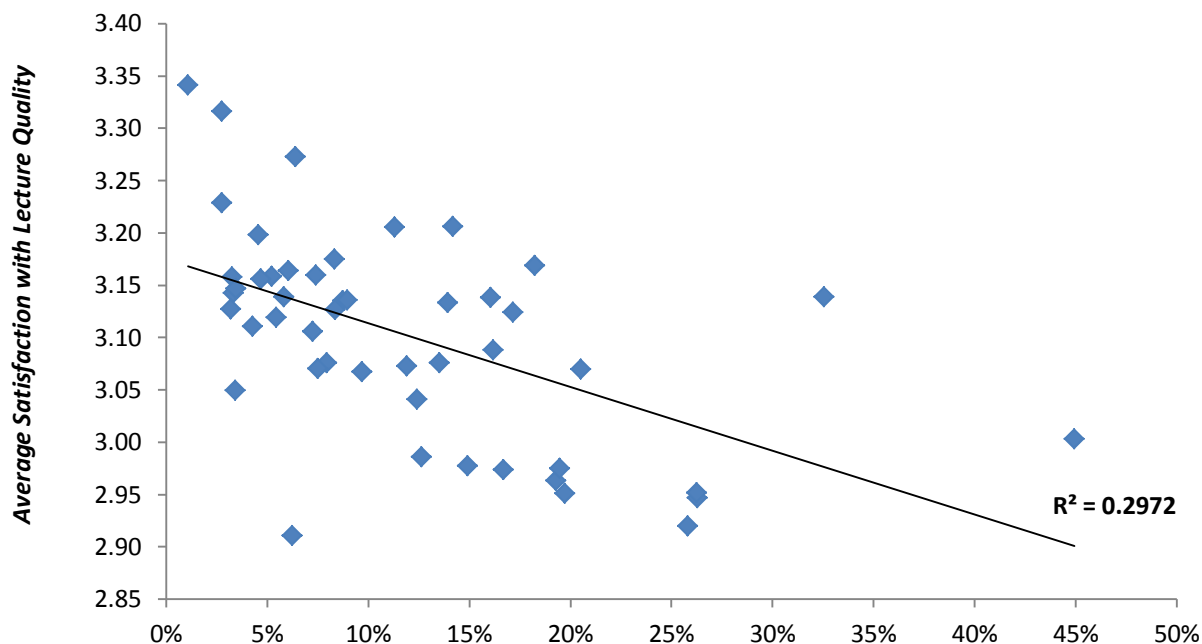


Figure 11 is consistent with *Ratio of International Undergraduates (Fall 2013)* international undergraduates strain conventional instructional approaches, international students may mean many non-native English speakers and widespread unfamiliarity with domestic teaching and assessment methods. Faculty face the challenge of adequately serving both domestic and international students. Insofar as many schools in the sample, particularly in the U.S., have recently ramped up international undergraduate enrollment, many faculty may have had little warning, let alone guidance or training, on how to best handle such a population shift<sup>16</sup>.

The traditional lecture, still commonplace at most universities, and the go-to device to manage large classes at undergraduate level, may be a mixed blessing for many international students. Non-native English speakers may welcome the anonymity of the lecture, and the “transmission” pedagogy, but may suffer from the lack of opportunity to check understanding and ask questions. The literature suggests that few universities have in any sense systematically considered the pedagogical approaches that might best fit particular disciplinary and international student combinations<sup>17</sup>. Of course, a correlation of 0.30 means that the majority of sample variation is not explained by the international student ratio, implying pedagogic diversity by field of study and institution.

Perhaps international undergraduates seek out faculty outside class to complement the lecture. In fact, the sample suggests that higher international undergraduate ratios are similarly negative when it comes to satisfaction with “time with faculty” outside class. The correlation is 0.29- the higher the international undergraduate ratio, the lower the satisfaction. But again, some institutions buck the trend.

A comparable relationship is also visible for satisfaction with the physical library= 0.41. This may speak to difficulties among international undergraduates in fully accessing the library, magnified at institutions with a higher ratio of international students; or the limited resources of library staff to deal with a more

diverse population. It is notable that a much smaller correlation is visible for the online library (only 0.13), which speaks to the benefits of self-service and non-dependence on oral communication.

## 6 Nationality and Satisfaction

The final section takes a first look at nationality and overall satisfaction. There are some striking patterns by region. Essentially, the data shows higher rates of satisfaction for students from continental Europe and lower satisfaction for students from Asia and the Middle East. Figure 12 shows the Top 50 nationalities by number of respondents. The data is drawn from the 48 sample universities, and concerns both undergraduates and graduate students.

**Figure 12. Why are European students more satisfied than students from Asia and the Middle East?**

All Students	Overall	Respondents	Region
Brazil	3.31	733	Latin America
Ireland	3.28	551	English-speaking
France	3.28	1,015	Europe
Poland	3.25	555	Europe
Denmark	3.25	205	Europe
Spain	3.25	686	Europe
Switzerland	3.25	214	Europe
Netherlands	3.24	429	Europe
Portugal	3.23	247	Europe
Russian Federation	3.23	451	Europe
Cyprus	3.23	448	Europe
Australia	3.23	348	English-speaking
Austria	3.22	237	Europe
Italy	3.21	939	Europe
Sweden	3.21	396	Europe
Romania	3.21	409	Europe
Germany	3.20	1,848	Europe
Greece	3.19	788	Europe
Lithuania	3.18	318	Europe
Bulgaria	3.18	516	Europe
Nigeria	3.17	999	Africa
India	3.17	4,719	South Asia
Chile	3.16	223	Latin America
Norway	3.16	414	Europe
Ghana	3.16	215	Africa
Pakistan	3.15	642	South Asia
USA	3.15	2,292	English-speaking
UK	3.11	416	English-speaking



Philippines	3.11	330	South East Asia
Thailand	3.11	643	South East Asia
Canada	3.10	1,255	English-speaking
Sri Lanka	3.09	361	South Asia
Iraq	3.08	275	Middle East
Colombia	3.08	393	Latin America
Mexico	3.05	540	Latin America
Indonesia	3.05	817	South East Asia
Bangladesh	3.04	478	South Asia
Turkey	3.04	499	Middle East
Singapore	3.04	1,134	South East Asia
Malaysia	3.03	2,632	South East Asia
Nepal	3.02	456	South East Asia
Japan	3.00	619	East Asia
China	3.00	16,474	East Asia
Vietnam	2.99	1,003	South East Asia
South Korea	2.99	1,794	East Asia
Taiwan	2.97	917	East Asia
Saudi Arabia	2.96	940	Middle East
Hong Kong SAR	2.95	1,289	East Asia
Kenya	2.95	227	Africa
Iran	2.94	851	Middle East

The concentration of European students in the top third of the table, and Asian and Middle Eastern students in the bottom third is very pronounced. The range between the most (Brazil at 3.31) and least satisfied (Iran at 2.94) nationalities is little more than 10% of the scale, but puts many Asian and Middle Eastern nationalities at or below merely the “satisfied” threshold. It is notable that China ranks #1 in terms of number of international students, but #43 among the fifty largest nationalities on overall satisfaction.

A “western” orientation may favor many European students when studying in Australia, the UK or U.S., and in many European countries English language education is well-established and widespread. Indeed, students from English-speaking countries exhibit above-average satisfaction. Larger cultural differences between the West and much of Asia and the Middle East may make academics and integration harder. Greater familiarity with English in South Asian countries may help explain higher average satisfaction compared to South East Asia and East Asia. It may also explain why the Philippines has the highest satisfaction average for South East Asia.

Generous government support may aid the satisfaction of Brazilians, but well-funded Saudi students are among the least satisfied. Given past and present political realities, some Middle Eastern students may find study in the West somewhat unsettling or even hostile.

Patterns across Africa and Latin America are less pronounced, but both regions have limited prominence in the Top 50.

Figure 12 is offered as an introduction to the nationality variable. Further research might disaggregate undergraduate and graduate students, consider field of study and highlight institutions that outperform on satisfaction with certain groups. Particular components of satisfaction might also be considered. For now, the big takeaway is that many of the nationalities that send the most students to Australia, the UK and the U.S. are also the least satisfied.

## **7 Conclusion**

i-graduate's *International Student Barometer™*, the world's largest survey of international student satisfaction, helps address a major gap in our understanding of the international student experience. With nearly a decade's worth of cross-institutional and cross-country data across hundreds of universities and colleges around the world, the ISB complements the primarily small-scale, qualitative literature in the field.

As demand for and supply of international student mobility continue to increase, offering more choice to prospective students, the ISB offers institutions missing perspective on where the experience is working well and less well, and correlations between satisfaction and a host of demographic and other variables. The ISB helps participating institutions obtain an external vantage point on performance to drive reform and innovation. Institutions that want to grow international student numbers or refine fit can use the ISB to better understand existing decision-making, demographic and satisfaction patterns. The ISB can help institutions strengthen the student mobility value proposition in the face of alternatives, such as more robust domestic provision, cross-border delivery and distance learning.

This report marks i-graduate's commitment to undertake and publish additional macro analysis of ISB data. The ground covered here is just a selection of possible avenues for further research. We welcome interest from partner institutions and other organizations in collaboration on future analysis.

As has been emphasized throughout this report, the ISB does not tell the whole story. There are institutions that outperform the average, emphasizing that demographics is not destiny. Institutional good practice and innovation can make the difference between an average experience and a great one. Whether through operational benchmarking or good practice digests and events, i-graduate is committed to building on the insights of the ISB to help institutions enhance the international student experience.

**Appendix A List of Degree-Granting Institutions that Participated in the ISB in 2013**

<b>Institution</b>	<b>Country/Region</b>
Asia Pacific University of Technology & Innovation	Asia
James Cook University (Singapore)	Asia
Swinburne University of Technology (Sarawak Campus)	Asia
Taylor's College	Asia
Taylor's University, Lakeside Campus	Asia
The Chinese University of Hong Kong	Asia
The Hong Kong Polytechnic University	Asia
The Hong Kong University of Science and Technology	Asia
The International Medical University Malaysia	Asia
UCSI University	Asia
Universiti Teknologi PETRONAS	Asia
University of Adelaide (Singapore)	Asia
University of Nottingham (China)	Asia
Auckland University of Technology	Australia & New Zealand
Australian Catholic University	Australia & New Zealand
Australian National University	Australia & New Zealand

Bond University	Australia & New Zealand
Central Queensland University	Australia & New Zealand
Charles Darwin University	Australia & New Zealand
Curtin University	Australia & New Zealand
Deakin University	Australia & New Zealand
Edith Cowan University	Australia & New Zealand
Flinders University	Australia & New Zealand
Griffith University	Australia & New Zealand
James Cook University	Australia & New Zealand
La Trobe University	Australia & New Zealand
Macquarie University	Australia & New Zealand
Massey University	Australia & New Zealand
Murdoch University	Australia & New Zealand
Southern Cross University	Australia & New Zealand
University of Adelaide	Australia & New Zealand

University of Auckland	Australia & New Zealand
University of Canberra	Australia & New Zealand
University of Canterbury	Australia & New Zealand
University of New South Wales	Australia & New Zealand
University of Newcastle	Australia & New Zealand
University of Otago	Australia & New Zealand
University of South Australia	Australia & New Zealand
University of Southern Queensland	Australia & New Zealand
University of Sydney	Australia & New Zealand
University of Tasmania	Australia & New Zealand
University of Technology, Sydney	Australia & New Zealand
University of the Sunshine Coast	Australia & New Zealand
University of Waikato	Australia & New Zealand
University of Western Australia	Australia & New Zealand
University of Western Sydney	Australia & New Zealand
University of Wollongong	Australia & New Zealand
Victoria University of Wellington	Australia & New Zealand
Brandenburgische Technische Universität Cottbus - Senftenberg	Europe- other
Chalmers University of Technology	Europe- other
Erasmus University Rotterdam	Europe- other
Hanze University of Applied Sciences, Groningen	Europe- other
Heinrich-Heine-Universität Düsseldorf	Europe- other
HU University of Applied Sciences Utrecht	Europe- other
Jönköping University	Europe- other
Karolinska Institutet	Europe- other
Lappeenranta University of Technology	Europe- other
Leiden University	Europe- other
Linköping University	Europe- other
Lund University	Europe- other
Radboud University Nijmegen	Europe- other
Ruhr-Universität Bochum	Europe- other

Saxion University of Applied Sciences	Europe- other
Stockholm University	Europe- other
Tilburg University	Europe- other
Trinity College Dublin	Europe- other
Umeå University	Europe- other
Università Cattolica del Sacro Cuore	Europe- other
Universität Konstanz	Europe- other
Universität Tübingen	Europe- other
University College Dublin	Europe- other
University of Groningen	Europe- other
University of Twente	Europe- other
Uppsala University	Europe- other
VU University Amsterdam	Europe- other
Wageningen University	Europe- other
Algonquin College	North America
Arizona State University	North America
Centennial College	North America
College of New Caledonia	North America
College of the Rockies	North America
Colorado State University	North America
DePaul University	North America
Durham College	North America
Fanshawe College	North America
Fresno State	North America
George Brown College	North America
Georgian College	North America
Gonzaga University	North America
Humber Institute of Technology and Advanced Learning	North America
Iowa State University	North America
Johnson & Wales University	North America
Lane Community College	North America
Miami University	North America
Northeastern University	North America
Northwestern University	North America
Nova Scotia Community College	North America
Seneca College	North America
Sheridan College	North America
Simon Fraser University	North America
The George Washington University	North America

The University of Kansas	North America
Université Laval	North America
University of Alberta	North America
University of California, Santa Cruz	North America
University of Central Missouri	North America
University of Cincinnati	North America
University of Colorado Denver	North America
University of Guelph	North America
University of Illinois, Urbana-Champaign	North America
University of Minnesota	North America
University of Missouri	North America
University of Nebraska–Lincoln	North America
University of New Mexico	North America
University of Pittsburgh	North America
University of the Fraser Valley	North America
University of Waterloo	North America
University of Wisconsin-Milwaukee	North America
Utah State University	North America
Valencia College	North America
Western Michigan University	North America
Aberystwyth University	UK
Anglia Ruskin University	UK
Aston University	UK
Brunel University	UK
Cardiff Metropolitan University	UK
Coventry University	UK
Durham University	UK
Glasgow Caledonian University	UK
Heriot-Watt University	UK
Heriot-Watt University (Dubai)	UK
Lancaster University	UK
Leeds Metropolitan University	UK
Liverpool John Moores University	UK
London South Bank University	UK
Manchester Metropolitan University	UK
Newcastle University	UK
Northumbria University	UK
Plymouth University	UK
Queen Margaret University	UK

Queen Mary, University of London	UK
Robert Gordon University	UK
Royal Holloway, University of London	UK
Sheffield Hallam University	UK
Teesside University	UK
The Royal Veterinary College	UK
University College Birmingham	UK
University College London	UK
University for the Creative Arts	UK
University of Bedfordshire	UK
University of Birmingham	UK
University of Bradford	UK
University of Bristol	UK
University of Central Lancashire	UK
University of Chichester	UK
University of Dundee	UK
University of East London	UK
University of Edinburgh	UK
University of Exeter	UK
University of Glasgow	UK
University of Gloucestershire	UK
University of Greenwich	UK
University of Manchester	UK
University of Northampton	UK
University of Nottingham	UK
University of Nottingham (Malaysia)	UK
University of Oxford	UK
University of Reading	UK
University of Roehampton	UK
University of Sheffield	UK
University of St Andrews	UK
University of Strathclyde	UK
University of Surrey	UK
University of the West of England, Bristol	UK
University of Ulster	UK
University of Warwick	UK
University of York	UK

**Appendix B Key to Figure 4: Selected Experience Components- Correlation with Recommendation and Average Satisfaction** (undergraduate international students enrolled across 48 UK, U.S. and Australian universities that took part in the Fall 2013 ISB; ordered by correlation)

<b>Correlation with Recommendation</b>	<b>Correlation with Recommendation</b>	<b>Average Satisfaction</b>
Subject expertise of faculty	0.6	3.28
Good contacts	0.6	2.94
Academic content of program	0.56	3.15
Organized social activities	0.55	3.01
English ability of faculty	0.52	3.27
Visa/immigration advice from school	0.51	2.99
Lecture quality	0.5	3.08
Worship facilities	0.48	3.06
Time with faculty	0.47	3.13
Research caliber of institution	0.46	3.06
English language skills	0.46	3.16
Program organization	0.43	3.07
Teaching ability of faculty	0.42	3.11
Host friends	0.42	2.95
Social facilities	0.4	3.00
Online library	0.37	3.25
Other friends	0.37	3.14
Physical library	0.36	3.25
Cost of living	0.36	2.62
Campus environment	0.35	3.21
Sports facilities	0.31	3.08
Safety	0.29	3.19
Quality of lecture theaters/classrooms	0.28	3.19
Surrounding area	0.21	3.17
Design/quality of campus buildings	0.19	3.15
International Office	0.19	3.20
Learning that will help me get a good job	0.19	2.95
Coursework feedback	0.18	3.00
Internet at accommodation	0.18	2.96
External transport	0.16	2.96
Home friends	0.15	3.10
Cost of accommodation	0.15	2.56
Career advice from faculty	0.13	2.87
Ecofriendly- institution	0.12	3.14
Class size	0.11	3.10
Learning Management System (LMS)	0.08	3.22

Health Center	0.05	3.17
Campus food	0.05	2.98
Ability to earn money	0.04	2.53
Availability of school financial support	0.02	2.49
Students' Union	0.01	3.23

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<sup>2</sup> Montgomery, C. (2010) *Understanding the International Student Experience*, Palgrave Macmillan.

<sup>3</sup> UNESCO Institute of Statistics “Enrollment in Tertiary Education” table. For 2012, the “World” total is reported as over 196 million. The equivalent figure for 1999 was under 100 million. UNESCO defines tertiary education as ISCED97 5A programs and above, and excludes postsecondary nontertiary programs. Available at: <http://data.uis.unesco.org/>

<sup>4</sup> OECD (2013) *Education Indicators in Focus: How is international student mobility shaping up?* 2013/05 (July), p1. Available at: [http://www.oecd.org/education/skills-beyond-school/EDIF%202013--N%C2%B014%20\(eng\)-Final.pdf](http://www.oecd.org/education/skills-beyond-school/EDIF%202013--N%C2%B014%20(eng)-Final.pdf)

<sup>5</sup> i-graduate analysis of OECD and UNESCO enrollment data.

<sup>6</sup> CBC News (2014) *Canada wants to double its international student body*, 15 January. Available at: <http://www.cbc.ca/news/canada/british-columbia/canada-wants-to-double-its-international-student-body-1.2497819>

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<sup>14</sup> Snow Andrade, M. (2006) International students in English-speaking universities: Adjustment factors *Journal of Research in International Education* August 2006 5: 131-154.

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<sup>16</sup> Stohl, M. (2007) We Have Met the Enemy and He Is Us: The Role of the Faculty in the Internationalization of Higher Education in the Coming Decade, *Journal of Studies in International Education*, Fall/Winter 2007 11: 359-372.

<sup>17</sup> See Mahrous, A. & Ahmed, A. (2010) A Cross-Cultural Investigation of Students' Perceptions of the Effectiveness of Pedagogical Tools: The Middle East, the United Kingdom, and the United States, *Journal of Studies in International Education*, July 2010 14: 289-306. See also Leask, B. (2009) Using Formal and Informal Curricula to Improve Interactions Between Home and International Students, *Journal of Studies in International Education*, June 2009 13: 205-221.