The Effects of the Internationalisation of Universities on Domestic Students

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Abstract

The internationalisation of universities is currently a very common goal for both educators and politicians. However, few universities look beyond increasing participation in the typical activities of internationalisation, (including study abroad, the presence of international students, and internationalisation of the curriculum), to specifying the desired outcomes. Furthermore, no current and complete instrument exists to measure whether students are achieving these outcomes.

Through a review of the theoretical and empirical literature, a list of the potential outcomes of internationalisation was composed and refined into three knowledge areas: Foreign Language Proficiency, Knowledge of a Specific Region or Country, and International Knowledge, and three affective areas: International Attitudes and Perceptions, Cross-Cultural Skills, and International Behaviours. Questions in each area were taken from previous instruments or composed by the researcher, then refined and selected by content area experts who judged new questions for sampling and item validity. Pilot testing was conducted on the majority of the scales in order to establish construct and internal consistency reliability. The final instrument consisted of six scales representing the different areas of the desired outcomes of internationalisation. Thirteen hundred and two students (from Griffith University in Australia and Kennesaw State University and University College at Buffalo State in the U.S.) completed these scales and a background information questionnaire. Factor analysis was conducted on the three affective scales, resulting in 10 subscales. The scale of International Attitudes and Perceptions consisted of three subscales: Global Interdependence and Cooperation, Cultural Pluralism, and Cultural and National Self-Awareness. The scale of Cross-Cultural Skills consisted of three subscales: Intercultural Communication and Teamwork, Intercultural Friendship, and Behavioural Flexibility. The scale of International Behaviours consisted of four subscales: Academic Involvement, Intercultural Curiosity and Involvement, Charitable Involvement, and Political Involvement.

MANOVAs were used to assess the relationship between background and internationalisation variables, and the scale and subscale scores. The results confirmed that the primary components of an internationalised education (study abroad, contact with international students, and an internationalised curriculum) and frequent attendance at international events, were significantly correlated with higher scores on almost all of the scales and subscales. Other international variables were also significantly correlated,

but with fewer scales. In addition, a number of background variables were found to be significantly correlated with one or more scale scores: age, gender, being born or having parents born outside the country, speaking a second language at home, level of parental education, GPA, course of study, religion, frequency of attendance at religious services, political beliefs, exposure to international news media, and source of television news.

This study supports the hypothesis that an internationalised education is effective in bringing about change in students. Students who have had greater participation in the components of internationalisation during their education were shown to have greater foreign language skills, higher levels of general and region- and country-specific international knowledge, more worldminded attitudes, behaviours that reflected those attitudes, and higher levels of cross-cultural skills. These findings offer renewed support and scientific vigour to the claims made by international educators, which should help fuel the effort to bring internationalisation to the forefront of university strategic plans. They also shed greater light on the areas of internationalisation that are correlated with various outcomes so that internationalisation strategies can better target specific outcomes. An additional side benefit of this study is the creation of an instrument that with some changes, can serve as an up-to-date, valid, and reliable instrument to measure a wide-ranging set of outcomes of an internationalised education and to track a university's progress in achieving these outcomes.

Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Signed: _____

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Introduction

Internationalisation is now a common goal for Australian and U.S. universities. In 2000, President Clinton issued a Memorandum on International Education Policy, which expressed the goal of "making international education an integral component of U.S. undergraduate education" (Clinton, 2000, p. 1). The American Association of State Colleges and Universities' *Public Policy Agenda* for 2004 includes recommendations and policy initiatives to support international education for reasons of global understanding as well as national security. It is a rare university in the U.S. that does not feel the pressure to internationalise.

Australian universities have long been engaged in internationalisation, primarily through the recruitment of international students. In October 2003, Brendan Nelson, Minister for Education, Science and Training, launched his paper *Engaging the World Through Education* in which he stated: "International education contributes to Australia's engagement with the world, socially, culturally and intellectually as well as economically" (Nelson, 2003, p. iii). The report acknowledges the benefits of international education, including "providing diverse social and cultural perspectives", strengthening "Australian democracy and multiculturalism and the tolerance that underpins it", broadening skills and outlooks, and enhancing competitiveness and national security through the "international and cross-cultural awareness" of Australian citizens (Nelson, 2003, p. 3). The plan described in this document indicates that the government will "support education and training institutions and researchers in their endeavours to diversity their international activities across a broader range of countries and across levels and fields of study" (Nelson, 2003, p. iv).

Many programs and initiatives can be included under the umbrella of internationalisation. In the NAFSA Association of International Educators' report *Internationalizing the Campus*, Connell (2003) offers an incomplete list of what internationalising the campus can mean, including (a) study, work, and teaching abroad; (b) international linkages; (c) enrolment of international students; (d) faculty exchanges; (e) curricular and co-curricular initiatives; (f) hosting international visitors; and (g) international development projects, among others. However, it is not enough to ask what components or activities compose internationalisation or how to implement those activities. As Schoorman (2000b) points out, educators must also look at the rationale and goals of internationalisation. Universities claiming to be internationalised often have long lists of international accomplishments and programs, but closer examination

reveals that the programs are shallow and involve few people, or they fail to accomplish expected outcomes (Mestenhauser, 1998). Internationalisation plans often spell out neither their rationale nor specific learning goals and outcomes or means of assessing those outcomes. While international education advocates promote goals such as the development of multicultural sensitivity, ecological awareness, understanding international events in context, and international harmony (Davies, 1992; Freedman, 1998; Lambert, 1993), in reality, internationalisation is often driven by competition and economic concerns (Davies, 1992; Kwok, Arpan, & Folks, 1994; Welch, 2002). As Anyanwu (2004) writes in his study of internationalisation at universities in Australia, "Internationalisation in Australia could be regarded as an intersection between intellectual capital, multiculturalism and economic opportunism" (p. 3). International educators in the U.S. must use the excuse of national security to lobby for the continuation of government programs that support internationalisation, such as the National Security Education Program scholarships (Mestenhauser, 1998). Any university serious about internationalisation should first honestly assess its motivation for internationalisation and clearly spell out its educational goals and expected outcomes, not just the proposed activities, or program initiatives (Davies, 1992). Then it should devise a way of measuring whether those goals are being accomplished.

The purpose of this study was to create from the literature a comprehensive list of the likely and desired outcomes of internationalisation, to define those outcomes, and to create an instrument to measure them. The literature on worldmindedness, intercultural communication and competence, study abroad, intergroup contact theory, and internationalisation of the curriculum, were used to determine the likely and desired outcomes of internationalisation and form their definitions. The instrument constructed for the study was tested on first- and final-year undergraduate students at one Australian and two U.S. universities at various stages of internationalisation in order to determine whether the outcomes often touted by international educators could be accomplished through university internationalisation.

Literature Review

The literature on worldmindedness, intercultural communication and competence, intergroup contact theory, and the primary activities of internationalisation (study and travel abroad, enrolment of international students, and internationalisation of the curriculum) and their outcomes, are reviewed in this chapter. A review is provided of previous instruments used to measure the concepts of worldmindedness and intercultural competence, and of current trends in the assessment of the outcomes of internationalisation. These instruments and other theoretical literature are culled to arrive at preliminary definitions of the desired and predicted outcomes of internationalisation. In addition, the assessment model used for this study and the theoretical framework underpinning this work are described.

Worldmindedness and Its Assessment

The term worldmindedness was first coined by Sampson and Smith (1957), who were attempting to measure a value orientation, as opposed to knowledge about or interest in international relations. However, the first instrument to measure this concept was the Attitudes of World Citizenship Scale created by Lentz (1950), who sought to establish a continuum between worldmindedness and nationalism. His 66 item scale, which was administered in 1936 and again in 1946, consists of three subscales: Worldmindedness, Racial or Inter-group Tolerance, and Conservatism-Radicalism. The questions on the worldmindedness subscale relate to the United Nations, the atomic bomb, national military disarmament, and national patriotism. The questions on the racial or inter-group tolerance subscale relate to racial stereotyping, racial integration, comparison of Americans and Whites to other races, desire for travel, and opinions on U.S. policy towards smaller nations. The questions on the conservatism-radicalism subscale do not have any obvious relationship with international politics, but ask about aspects of conservatism-radicalism with respect to economics, education, science, religion, sociology, personal preferences, and opinions of famous people.

Sampson and Smith's Worldmindedness Scale (1957) is similar to that of Lentz (1950) and consists of 32 items on eight dimensions: religion, immigration, government, economics, patriotism, race, education, and war. Highly world-minded individuals, in their opinion, would have mankind as a primary reference group, as opposed to any one nationality.

Hanvey (1976) was one of the next researchers to theorise on the concept of worldmindedness, using the term global perspective, but did not create an instrument to

measure it. He felt that a global perspective consisted of five dimensions: *perspective consciousness, state of the planet awareness, cross-cultural awareness, knowledge of global dynamics,* and *awareness of human choices*. Perspective consciousness is an understanding that we all have different world perspectives that are deeper than just opinions, which can be subtly influenced, and that differ significantly from the perspectives of others. State of the planet awareness is an awareness of world conditions and current events, including science and technology, demographics, and politics. Cross-cultural awareness is an awareness of other cultures, the variety of ideas and practices from those cultures, how they compare, and some sense of how outsiders might view one's own society. Knowledge of global dynamics is an understanding of the interconnectedness of world systems and the significant effects that can result from changing elements of that system. Finally, awareness of human choices relates to a person's knowledge of the problem of choices in dealing with humanity's problems and how something that was once taken for granted, with additional awareness, can become a matter of choice. For example, we may know about the negative consequences of an action, but we may still choose to do it because those consequences only appear in the long-term and taking such an action is the best short-term solution.

The most ambitious project to date to define and measure worldmindedness is the Barrows (1981) survey of global understanding, conducted by the U.S. Educational Testing Service. Drawing on the work done by Lentz (1950) and Sampson and Smith (1957), it consists of four sections: Background and Interests, Attitudes and Perceptions, Knowledge, and Language. The Attitudes and Perceptions section utilises four measurement methods, which were subjected to rigorous and extensive statistical pre-testing as well as post-testing analysis. The first measure consists of 32 questions on a 5-point Likert scale from *strongly agree* to *strongly disagree*, derived from 10 scales developed by previous researchers on the topics of worldmindedness, international relations, pacifism, internationalism, nationalism, patriotism, war, and world affairs. Five factors emerged from this scale: Chauvinism, World Government, War, Cooperation, and Human Rights. The second measure consists of true-false questions of student self-perceptions, designed to measure interest, feelings of worldwide kinship, and empathy or concern. Questions relate to interest in and understanding of international news and other cultures, as well as concern for people struck by natural disaster or famine in other countries. Post-test statistical analyses revealed that the 10 items on the scale were tightly interrelated psychologically and measured only one factor. The authors felt that this was the "best single, short measure of the affective

component of global understanding" from the instrument (Barrows, 1981, p. 106). The third method of measurement, semantic differential scales, is used to assess student attitudes and perceptions of eight world issues: (a) environmental pollution, (b) denial of basic human rights, (c) inter-group conflict, (d) depletion of natural resources, (e) unemployment, (f) inflation, (g) malnutrition and inadequate health care, and (h) international conflict and war. Students select a number from 1 to 5 on 11 scales which have labels at either end of the scale such as "This problem is (important/unimportant)", "I know (a lot/very little) about this problem", and "This problem is of concern to people in (many/only a few) parts of the world". The final method of measurement is error-choice items, but it was found that they did not correlate substantially with any of the other affective scales.

The test of Knowledge from Barrows (1981) was designed to measure general international knowledge at the university level. It consists of 101 multiple-choice questions on the topics of (a) environment, (b) food, (c) health, (d) energy, (e) religious issues, (f) arts and culture, (g) distribution of natural characteristics, (h) relations among states, (i) war and armaments, (g) international monetary and trade arrangements, (h) human rights, (i) racial and ethnic issues, and (j) population. These topics were initially selected by a panel of scholars with expertise in a major area of the world, and knowledge of a major academic discipline relevant to the study of global affairs. The topics were then refined and the questions were written with the help of a dozen professors from the world studies department at Eisenhower College in Seneca Falls, New York.

The foreign language component of Barrows (1981) is composed of self-rating scales of Reading, Speaking, and Listening, which consist of items that students say they either can or can not do, as well as 15 questions on language attitudes. The *can do* scales include items of increasing difficulty. The Language Attitudes section consists of items on a 5-point Likert scale from *strongly agree* to *strongly disagree* that assess the motivation and interest of students in studying a foreign language, their attitudes towards the value and purpose of studying a foreign language, and their level of linguistic ethnocentrism. While the Assessment Committee and project staff who worked on Barrows (1981) originally assumed that global understanding consisted of the cognitive and affective components and that they were related to foreign language learning and proficiency, the survey results did not bear out this connection. While foreign language proficiency was moderately correlated to affect, there were very weak or negative correlations with knowledge.

A number of subsequent researchers have used subsets of Barrows (1981) in their research. Torney-Purta (1986) used the easiest 28 items from the Barrows' test of Knowledge, the 10-item Global Concern measure from the Attitudes and Perceptions section of Barrows (1981), and seven of the foreign language questions, to compare secondary school students from a number of different schools and programs. She also added five other international knowledge items from another study entitled "Other Nations Other Peoples" (cited in Torney-Purta, 1986). Hembroff, Knott, and Keefe (1990), used a portion of the Barrows (1981) test of Knowledge with U.S. students at Michigan State University and Woyach (1988) used a portion of the knowledge test with U.S. students at Ohio State University.

Hett (1994) drew on the work done by Lentz (1950), Sampson and Smith (1957), and Barrows (1981), as well as Reddin's (1975) Culture Shock Inventory, Silvernail's Future World Perspectives Scales (1979), and the work of a variety of others, to develop an instrument to measure global-mindedness. To create a preliminary definition of global-mindedness and its components, Hett (1994) interviewed a variety of people from different countries and backgrounds who were deemed to be global-minded. Items for the test were created by Hett with reference to statements from the interviews, as well as previous instruments and literature. Four content validity judges from the field of international education but from different academic backgrounds were chosen to rate the test items. The highest rated items were retained and the instrument was pilot tested on six students and refined. The final version of the test was taken by 396 students. After factor analysis, the five factors that emerged were (a) Responsibility (a concern for all people and a desire to improve their conditions), (b) Cultural Pluralism (an appreciation of the value of diverse cultures and an enjoyment in trying to understand them), (c) Efficacy (a belief in the importance of involvement and one's ability to make a difference), (d) Globocentrism (a belief in the importance of doing what's best for the global community and not just one's own nation, and using global standards as a reference point for making judgments), and (e) Interconnectedness (an awareness of the interconnectedness of humanity and a sense of kinship with people globally). The revised definition of global-mindedness developed by Hett, based on these factors, was "a worldview in which one sees oneself as connected to the world community and feels a sense of responsibility for its members. This commitment is reflected in attitudes, beliefs, and behaviors." (Hett, 1994, p. 143).

Another instrument designed to measure global awareness, the Global Awareness Profile (GAP), was created by J. Nathan Corbitt in 1998. It is a self-scoring

test consisting of 126 items that creates a graphic profile for participants of their global awareness, which is conceived of as the appreciation of the size, complexity, and diversity of the earth. It was created by asking university professors and international students what a person in their discipline or country should know as common knowledge. The resulting questions cover six geographic regions (Asia, Africa, Europe, the Middle East, North America, and South America) and six subject areas (environment, politics, geography, religion, socioeconomics, and culture), as well as 12 questions on broad global issues (Corbitt, 2007).

Warring, Keim, and Rau (1998), looked at worldmindedness from the perspective of dispositions. They developed the Global MAKSS-T (D. Warring, personal communication, June 25, 2007) to assess the effectiveness of multicultural education courses for prospective educators. It is adapted from the Multicultural Counseling Awareness, Knowledge, and Skills Survey (MAKSS) developed by D'Andrea, Daniels, and Heck (1991). It has been revised twice, first to create the MAKSS-T, a slightly different instrument to be used with prospective educators (Warring et al., 1998) and subsequently to widen its global dimensions to create the Global MAKSS-T. It is being used in conjunction with the Dispositions of Social Responsibility and Action Rubric (earlier version described in Huber-Warring & Warring, 2006; latest version received from D. Warring, personal communication, June 25, 2007) in working with education students to develop their self-reflection and critical consciousness in teaching for diversity, social justice, and global interdependence (Huber-Warring & Warring, 2006). The scale consists of 60-items on 4-point Likert scales. Thirty-eight of the questions offer responses from *very limited* to *very aware* and ask about students' understanding of culture, intercultural communication, and other related terms and concepts, as well as their ability to deal with prejudice, use various teaching strategies, and serve the needs of students from different minority groups. Twenty-two items require responses from *strongly disagree* to *strongly agree* regarding students' opinions on issues of social justice, mental health, sexual and racial discrimination, multiculturalism, and the role and training of educators. In a pre-, mid-, and post-course analysis using the Global MAKSS-T with 36 students in a multicultural issues course, there were significant increases found in multicultural awareness, knowledge, and skills (Keim, Warring, & Rau, 2001).

Rawwas and Rajendran (1996), looking at worldmindedness from the perspective of economics, created a scale based on the Sampson and Smith (1957) Worldmindedness Scale, the Hett (1994) scale of global-mindedness, and another scale

of nationalism. Their study examined the relationship between worldmindedness, nationalism, and consumer nationalism, or the tendency to prefer to purchase domestic-made products. They administered it to a random sample of 593 participants from Austria, a country they believed would evidence strong levels of both nationalistic and worldminded attitudes. Factor analysis on the items revealed three scales. They called the first scale Worldmindedness. It consisted of seven items in the areas of immigration, government, economics (with an emphasis on consumer nationalism), and patriotism. The second scale, called Nationalism, consisted of 27 items on the topics of patriotism, economics (with an emphasis on consumer nationalism), religion, immigration, government, race, education, and war. The correlation between the scales was quite low (r=.13), and a chi square test also confirmed that there was no apparent relationship between the constructs of nationalism and worldmindedness. The participants also gave their opinions on the quality of 10 types of products (e.g., automobiles, clothing, and food) from five different countries (Austria, Germany, the U.S., Japan, and the UK). Interaction effects between product country of origin and nationalism were significant for five products, and between product country of origin and worldmindedness for three products. They found that participants with high levels of nationalism rated the Austrian and German products higher than those with low levels of nationalism and that those with high levels of worldmindedness perceived products from Austria and Germany of lower quality and imported products of higher quality than those with low levels of worldmindedness.

More recently, Fernández (2006) proposed a new definition of a global perspective as a "complex one involving the ability to engage in critical self reflection and to navigate an international setting while acting in culturally sensitive and informed ways" (p. 51). She proposed a continuum to chart the development of attitudes and values moving from a Monocultural Global Perspective (in which one is unable to see another's perspective, prefers simple explanations of human behaviour and difference, limits intercultural interactions, has higher intercultural anxiety and limited self-awareness, and is not open to understanding cross-cultural differences or global issues) to an Integrated Global Perspective (in which one is able to adopt another's perspective, prefers complex explanations, seeks out culturally different people, has low intercultural anxiety, is self-aware and aware of one's impact on others, and is open and understanding of cross-cultural differences and global issues). She further identified four dimensions of a global perspective and their components: Preferences for Thinking and Interacting (including perspective taking and attributional complexity, or the ability

to attribute complex causes to others' behaviour), Intercultural Relations (including contact with others and intercultural anxiety), Intrapersonal Awareness (including intrapersonal learning), and Global Awareness (including understanding others in relation to self, global-centrism, cross-cultural understanding, and cross-cultural knowledge). She attempted to operationalise this conception of a global perspective using two previously validated scales plus eight new subscales developed for use in this study, called the Field Experience Survey (Fernández, 2002, cited in Fernández, 2006). Questions were on a variety of 4- and 5-point Likert scales. Reliability for the scales administered to 244 students from the University of Michigan in the U.S. before and after study abroad ranged from .52 to .90 with most falling in the .60 to .70 range. The author found, however, that confirmatory factor analysis did not confirm the existence of one overall measure of a global perspective. Items theorized to belong to dimensions of a global perspective did not produce scales sufficiently connected to these dimensions, and there were low correlations among statistically derived factors.

There have been a number of instruments created to measure the concept termed worldmindedness, global-mindedness, global citizenship, a global perspective, or international understanding. Barrows (1981), Hett (1994), and Corbitt (1998) are the most thorough and statistically valid, while others are meant for particular populations such as prospective teachers (Warring, Keim, & Rau, 1998), are quite outdated (Lentz, 1950; Sampson & Smith, 1957), or have not been established as valid and reliable (Fernández, 2006).

Intercultural Competence and Intercultural Communicative Competence

Another concept related to the concept of worldmindedness is that of intercultural competence, which has also been called intercultural sensitivity, intercultural adaptation, intercultural effectiveness, multicultural competence, cross-cultural competence, and many other terms. The definitions of these concepts have overlapped somewhat, but have not been identical. There is a broad body of literature describing both intercultural competence and intercultural or cross-cultural communication competence (which has been conceived of as encompassing many of these other terms) and their components. A review of some of the more recent work and syntheses of previous work will help to illuminate the areas of intercultural competence and intercultural communication competence that could be included in an instrument to measure the outcomes of internationalisation.

Early work on intercultural competence was primarily concerned with the adaptation of Westerners overseas. One early project typical of this approach was the

Carnegie Project (Cleveland, Mangone, & Adams, 1960). In this project, the authors attempted to determine what types of skills, training, and education were necessary for effective functioning overseas for Americans. It involved a preliminary conference, field research in six countries, interviews with nationals in 11 countries about the behaviour of Americans overseas, personality tests and biographic data from 244 Americans living overseas followed by in-depth interviews, and ratings of 219 of those Americans by their supervisors. The five areas relevant to effective performance that emerged from the data and on which each worker was rated were *technical skills, belief in mission, cultural empathy, a sense for politics*, and *organization ability*. Technical skills involve truly excelling not only in one's own area of specialisation, but also being an imaginative and adaptable general practitioner given one's isolation from colleagues overseas. A belief in mission goes beyond a willingness to work overseas for an extended period of time, but rather a "genuine commitment to overseas life and labor", an enthusiasm for one's job, a "sense of purpose and achievement," and an "active desire to be there" (p. 131). One must overcome difficulties and frustrations in the foreign environment without losing organisational efficiency or self-respect. They opined that cultural empathy, which they defined as "the skill to understand the inner logic and coherence of other ways of life, plus the restraint not to judge them as bad because they are different from one's own ways" (p. 136), requires both perceptiveness and receptiveness, not just friendliness or the ability to get along with host nationals. To be empathetic to another culture first requires a certain amount of examination and understanding of one's own culture. A sense for politics involves an understanding of one's status as a foreigner and responsibility as a representative of one's country and organisation, and an analysis of the power structure and political consequences of one's everyday behaviour. Organization ability goes beyond the same ability at home in that overseas workers must not only successfully perform their jobs, but train others to take over their jobs and create self-sustaining institutions overseas. Ratings by the interviewers of each overseas worker in each of these areas were compared to overall ratings by the workers' supervisors not only on their technical skills, but on their general worth to the operation and its mission. While correlations were not strikingly high, the findings indicated that these five areas constituted a constructive approach to analysing success and failure abroad.

Triandis (1977), in his work on interpersonal behaviour, offered some insight into the nature of behaviour and its antecedents in different cultures. Every culture, according to Triandis, has different value orientations around any number of themes,

such as an emphasis on the future versus the present or past, relationships with nature, human nature and its inherent goodness (or evilness), beliefs about the ability to change people's behaviour, emphasis on the individual versus the collective, glorification of private enterprise over group action, and beliefs regarding the possibility of having mastery-over nature. Attributions made about similar behaviour in different cultures based on one's own value orientations and cognitive structures can often distort the meaning of the behaviour. When people interact, they exhibit behaviours based on well-established habits from their own culture that can be unexpected or interpreted as hostile in another culture, thereby generating conflict. Triandis believed that people were capable of changing their behaviour to function more effectively in another culture if they received the appropriate reward for changing their behaviour. The first step towards changing those behaviours is then recognizing that there are different value orientations and cognitive structures in different cultures.

Hammer, Gudykunst, and Wiseman (1978) attempted to identify the qualities of an individual who was interculturally effective. They conducted an exploratory study with 53 students who had lived overseas for at least three months, and who were judged to have functioned effectively overseas by postgraduate students at the university where they were studying. The students were given a list of 24 personal abilities that the researchers believed to be connected with intercultural effectiveness. They were asked to rate each ability according to how important it was in facilitating their effective functioning during their overseas living experience. Responses were on a 6-point Likert scale from *very important* to *very unimportant.* After Principle Factor Analysis with a Varimax rotation, three factors emerged. The first, encompassing eight abilities, such as dealing with stress, frustration, social alienation, and different political systems, was termed Ability to Deal with Psychological Stress. The second, encompassing four abilities, such as "ability to deal with different communication styles" and "ability to initiate interaction with a stranger" (Hammer et al., 1978, p. 389), was termed Ability to Effectively Communicate. The last, encompassing six abilities, such as "ability to develop satisfying interpersonal relationships with other people", "ability to empathize with another person", and "ability to effectively deal with different social customs" (p. 389), was termed Ability to Establish Interpersonal Relationships.

In another study, Detweiler (1980) looked at the concept of *category width*, or using broad or narrow categories to classify things. While broad categorisers tend to group discrepant items together, narrow categorisers require things to be very similar to be categorised together. In a cross-cultural context, this means that a broad categoriser

would accept multiple interpretations for a behaviour, while a narrow categoriser would not. In an experiment with 50 U.S. university students, Detweiler asked participants to answer questions based on pictures of culturally similar or dissimilar individuals and written descriptions of various situations and their outcomes. There was a significant effect found for Category Width x Cultural Similarity of Actor x Positivity of Effects such that when an individual was described as having caused a negative effect, narrow categorisers tended to assume the culturally dissimilar person had intended that effect, but the culturally similar person had not. The narrow categorisers also demonstrated the greatest confidence in their judgments of negative effects caused by culturally dissimilar actors. Wide categorisers, in contrast, did not assume that they had the knowledge to make attributions based on the behaviour of culturally dissimilar individuals. This research identified an innate trait (in some views), or a learnable behaviour (in other views) that could have an impact on the success of individuals in cross-cultural adaptation. Category width relates not only to recognising and understanding cultural differences, but the joint tendencies to make judgments and to have strong confidence in those judgments.

In a 1989 study with 681 American and 206 Japanese students, Wiseman, Hammer, and Nishida attempted to explain the relationships between intercultural communication competence, knowledge of the host culture, and cross-cultural attitude. They conceptualised intercultural communication competence as composed of both culture-general and culture-specific understanding of another culture, as well as positive regard for another culture. Culture-specific understanding was operationalised in an instrument they designed involving descriptions of misunderstandings between a Japanese person and an American. Based on open-ended responses to questions regarding the situations, participants were rated on their culture-specific knowledge of either the U.S. or Japan, their knowledge of other cultures in general, and their favourableness towards the other culture (positive regard). Drawing on the work of Gudykunst, Wiseman, and Hammer (1977), they conceived of cross-cultural attitude as a combination of stereotypes, ethnocentrism, and social distance (prejudice against interacting and associating with another social group). To operationalise this construct, they extracted items from Sampson and Smith's (1957) Worldmindedness Scale, items from a scale of anti-Semitism adapted to apply to the U.S. and Japan, and a scale that investigated attitudes towards the other culture (e.g., whether they considered its members honest, considerate, or gregarious). Factor analysis of this scale led to the identification of three factors: Negative Stereotypes Toward Other Culture, Positive

Stereotypes Toward Other Culture, and Ethnocentrism/Pluralism. To this they added an already existing scale of perceived social distance. Finally, to operationalise knowledge of the host culture, they created a composite independent variable based on answers to questions regarding coursework in the other culture, self-perceived degree of knowledge about the other culture, and fluency in the other language. Using path analysis, they found that the best predictors of culture-specific understanding were Ethnocentrism/Pluralism and perceived social distance. The best predictors of culture-general understanding were Ethnocentrism/Pluralism, perceived social distance, and knowledge of the other culture. Positive regard was only minimally correlated with the three predictor variables. This model only explained 14 per cent of the variance in the three proposed dimensions of intercultural communication competence. The one unexpected finding of this study, that greater perceived social distance was correlated with greater Culture-Specific Understanding, was no doubt affected by the Japanese students who understood more about American culture but perceived greater social distance from it.

Ruben (1989) asked several questions that have been of concern to later researchers. First, is competence about relationship building and maintenance, or rather related to tasks, or the ability to get things done? He brings together these alternate conceptualisations by separating out the various facets of competence: relational-building and maintenance competence, information-transfer competence, and compliance-gaining competence. He also questions whether cross-cultural competence is a matter of attitude, knowledge, or behaviour, but clearly favours the view that behaviours are the most obvious manifestation of knowledge and attitudes.

Imahori and Lanigan (1989) address some of the same issues of concern to Ruben (1989) in their review of previous literature. They observe that while some authors conceptualise intercultural communication competence as a question of effectiveness (outcomes-focussed), others see it as a function of appropriateness (skills-focussed). They then harmonise these approaches into a more comprehensive conceptualisation of intercultural communication competence that incorporates all of these dimensions. In addition, they posit that intercultural communication competence should be measured in the context of a relationship between two individuals from different cultures, and in light of positive relational outcomes. They propose the following definition of intercultural communication competence: “the appropriate level of motivation, knowledge, and skills of both the sojourner and the host-national in

regards to their relationship, leading to an effective relational outcome." (Imahori & Lanigan, 1989, p. 277).

Barna (1994) identified some of the stumbling blocks to intercultural communication. These include (a) assuming that we are sufficiently similar to people from other cultures that communication will be easy; (b) language differences, including vocabulary, syntax, idioms, slang, and dialects; (c) misinterpretations of nonverbal behaviours; (d) clinging to preconceptions and stereotypes to the exclusion of accurate and objective perception; (e) the tendency to immediately evaluate, or judge from the perspective of one's own culture; and (f) high anxiety, due to the stresses of intercultural communication in which there are awkward silences, communication difficulties, and nonverbal misunderstandings.

In another synthesis of previous intercultural communication research, Chen and Starosta (1996) address some of the issues raised by Ruben (1989). They identify three processes of intercultural communication competence: *intercultural sensitivity*, the affective process, *intercultural awareness*, the cognitive process, and *intercultural adroitness*, the behavioural process. Intercultural sensitivity deals with emotional responses in relation to intercultural interactions. It includes four personal attributes: self concept (good self-esteem, an optimistic outlook, self-reliance, perseverance, and an extroverted personality), open-mindedness, nonjudgmental attitudes, and social relaxation (lack of anxiety in intercultural situations). The cognitive process of intercultural awareness is composed of the awareness of one's own and others' cultures, that is, self-awareness and cultural awareness. The behavioural process of intercultural adroitness relates primarily to communication skills, including (a) message skills (foreign language competence and non-verbal skills), (b) appropriate self-disclosure (revealing information about oneself to an interlocutor that is appropriate in both nature and quantity), (c) behavioural flexibility, (d) interaction management (speaking in turn and initiating and ending conversations appropriately), and (e) social skills (empathy and identity maintenance, or maintaining one's counterpart's identity while communicating).

Byram (1997) distilled these and other views from the perspective of foreign language education. His formulation of intercultural competence is a combination of attitudes, skills, knowledge, and critical cultural awareness/political education, with student achievement objectives within each of these areas. He defines attitudes as "Curiosity and openness, readiness to suspend disbelief about other cultures and belief about one's own." (Byram, 1997, p. 50). The objectives of attitudes can be summarised

as (a) seeking to engage with others who are different (not for the purpose of seeking the exotic or making a profit); (b) interest in other perspectives, (c) willingness to question values and presuppositions, (d) readiness to experience stages of adaptation while living in another culture, and (e) readiness to engage with conventions of verbal and non-verbal communication. Knowledge, as defined by Byram, is "of social groups and their products and practices in one's own and in one's interlocutor's country, and of the general processes of societal and individual interaction" (p. 51). Achievement objectives include acquiring knowledge (a) about the relationship between one's own and another country; (b) causes of misunderstanding; (c) means of making contact with those from another country and the institutions that assist with problem resolution; (d) national memory; (e) geography; (f) processes and institutions of socialisation; (g) social distinctions; (h) institutions of daily life; and (i) processes of social interaction. Most of these pieces of knowledge are both of another country and of one's own country, both seen from the perspective of an interlocutor from the other country. Skills are divided into two areas. The first, skills of interpreting and relating, is defined as the "ability to interpret a document or event from another culture, to explain it and relate it to documents from one's own" (Byram, 1997, p. 52). This involves identifying ethnocentric perspectives, areas of misunderstanding, and mediating between conflicting interpretations of events. The remaining skills are those of discovery and interaction, which are defined as the "ability to acquire new knowledge of a culture and cultural practices and the ability to operate knowledge, attitudes and skills under the constraints of real-time communication and interaction" (p. 52). Student achievement objectives include attaining the abilities to (a) elicit information and develop an explanatory system that can then be applied to other situations; (b) identify cultural references; (c) identify comparative processes of interaction and then interact appropriately; (d) use knowledge, skills, and attitudes of a country in real-time interaction and in mediating contact between other interlocutors; (e) identify relationships between one's own and another's country; and (f) identify and use public and private institutions for facilitating contact. The final area, critical cultural awareness/political education is defined as "An ability to evaluate critically and on the basis of explicit criteria perspectives, practices, and products in one's own and other cultures and countries" (Byram, 1997, p. 53). Objectives include the abilities to identify and interpret values in documents and events, analyse events with an explicit perspective, and interact and mediate in intercultural exchanges. This must be done with explicit reference to the basis and standpoint for making judgments about another

culture, which for a competent intercultural speaker would be outside their own country's or culture's perspective.

Deardorff (2004, 2006) attempted to create a consensus on the definition of intercultural competence by separately polling top U.S. international administrators and top intercultural scholars from the U.S., Canada, and the U.K. in a Delphi study. She found that the definition of intercultural competence that was the most highly rated by international education administrators was one that she culled from the work of Byram (1997): "Knowledge of others; knowledge of self; skills to interpret and relate; skills to discover and/or to interact; valuing others' values, beliefs, and behaviors; and relativizing one's self. Linguistic competence plays a key role" (Deardorff, 2004, p. 130). In addition, she found that definitions of intercultural competence developed by several universities in her study shared a number of common elements, of which the top three were "the awareness, valuing, and understanding of cultural differences; experiencing other cultures; and self-awareness of one's own culture" (Deardorff, 2006, p. 247). Definitions agreed upon by the greatest number of intercultural scholars, however, focussed more on effective communication and behaviour in intercultural situations. Individual components of competence upon which most scholars agreed included personal attributes such as adaptability, self-awareness, and openness; skills to listen, observe, analyse, interpret, and relate; attitudes such as respect and empathy; and both culture-general and culture-specific understanding. The one element of intercultural competence upon which all intercultural scholars agreed was that of understanding others' world views (Deardorff, 2006). Another finding of her study was that international education administrators used a variety of terms to describe the desired outcomes of internationalisation, including intercultural competence, cross-cultural competence, global competence, and global citizenship, indicating a lack of consensus in this area. It could be argued that the differences found between the definitions of intercultural competence selected by international educators and intercultural scholars are the result of the differing purposes of their fields. The study of intercultural competence began primarily to help those living and working overseas and their employers in preparing and selecting individuals for such experiences (Ruben, 1989) whereas most university administrators are working with a majority of students who will not have experience overseas (IIENetwork, 2006).

Deardorff (2004) summarises the findings of her study in a process model of intercultural competence in which the starting point is attitudes, including respect, openness, and curiosity, which then allow individuals to enter into the process of

becoming interculturally competent. Another interpretation Deardorff gives to her findings is represented by another model of intercultural competence in the form of a pyramid. The bottom layer of the pyramid represents attitudes of respect, openness, and curiosity and discovery. These serve as an entry point into the next level representing knowledge and comprehension, which encompass cultural self-awareness, deep understanding and knowledge of culture, culture-specific information, and sociolinguistic awareness. This knowledge interacts side by side with skills of listening, observing, interpreting, analysing, evaluating, and relating. The desired internal outcome of these attitudes, knowledge, and skills, on the next level of the pyramid, are an informed frame of reference or filter shift, which includes adaptability, flexibility, ethnorelative view, and empathy. The final tier of the pyramid represents the desired external outcome; that one behaves and communicates effectively and appropriately to achieve one's goals.

Work on intercultural communication competence over the last 47 years has included many attempts to create a comprehensive definition of this concept and its components. While some researchers have concentrated on either personal qualities or behaviours (Detweiler, 1980; Hammer et al., 1978; Ruben, 1989), others have seen it as a broader concept that also involves attitudes and knowledge (Byram, 1997; Chen & Starosta, 1996; Imahori & Lanigan, 1989; Wiseman et al., 1989). The findings from Deardorff (2004, 2006) indicate a dichotomy between the understanding of these concepts by experts in intercultural communication and international educators. While the favoured definitions of international educators verge more towards definitions for worldmindedness, including attitudes, knowledge, and skills, the definitions favoured by intercultural communication and competence experts concentrate more on the personal qualities and effective behaviours that allow for successful functioning overseas.

Assessment of Intercultural Competence and Intercultural Communicative Competence

Over the years, numerous methods and instruments have been created to try to measure the concepts of intercultural communication competence and intercultural competence and predict the success of overseas sojourners. Early studies to predict the characteristics of a successful overseas sojourner used open-ended interviews and self-report measures (Ruben, 1989). However, they failed to provide clear-cut predictions of who would succeed overseas, perhaps because it was obvious to applicants that the screening measures would affect their likelihood of being selected for the job (Ruben,

1989). Therefore, in subsequent studies, researchers began to try to observe communication behaviours in order to identify the behaviours that led to successful intercultural interactions (Olebe & Koester, 1989; Ruben, 1989; Ruben & Kealey, 1979). Because of the importance in the business realm of successful intercultural interactions and the potentially lucrative business in intercultural consulting, a large variety of instruments have been developed to try to assess this concept. A list of cross-cultural assessment instruments currently in use has been compiled by SIETAR Europa (2007). A review of some of the better-known and documented, and those that have been used in study abroad outcomes assessments is provided here.

The Intercultural Behavior Assessment Indices, developed by Ruben (1976), were based on seven behavioural dimensions of intercultural communication competence: (a) display of respect (expressing positive regard for another person), (b) interaction posture (responding in a descriptive, nonjudgmental way), (c) orientation to knowledge (acknowledging knowledge is individual in nature), (d) empathy, (e) self-oriented role behaviour (divided into behaviours related to a group's task or problem-solving activities, behaviours related to relationship-building activities of a group, and individualistic roles that function in negative ways), (f) interaction management (appropriate time sharing, and initiating and terminating discussions), and (g) tolerance for ambiguity (lack of discomfort in new situations). A one-item scale with definitions attached to numbers 1-4 or 1-5 was developed for each dimension (including three separate components of role behaviour for a total of nine dimensions). The scales were intended for use by trained observers in evaluating potential sojourners. The indices were first used by observers to rate participants in an overseas training program (Ruben, 1976).

Ruben and Kealey (1979) used the Intercultural Behavior Assessment Indices to explore the relationship between performance on the indices and success overseas. The participants were 14 Canadians posted for work in Kenya and their spouses. Three indices were used to rate overseas success: culture shock, psychological adjustment, and interactional effectiveness. The last of these three indices was concerned primarily with the transfer of knowledge, skills, and competencies to the host country nationals with whom the participants interacted. It was found that greater culture shock was experienced by those who were more relationally-oriented, less judgmental, and more tolerant of ambiguity; had higher degrees of empathy; were "concerned with turn-taking in initiating, carrying forth, and terminating interactions" (Ruben & Kealey, 1979, p. 41), and whose orientation to knowledge was more personal (versus generalising one's

beliefs to others). The authors also found that there was essentially no correlation between the experience of culture shock and the other indices used (adjustment and effectiveness). However, the relationship between effectiveness and the individual scales indicate that those who undergo the most culture shock may ultimately be the most effective, as many of the same behaviours that were related to greater culture shock were also related to greater effectiveness (non-judgmentalness, respect, personal orientation to knowledge, and tolerance of ambiguity). In addition, those who were very task-oriented and displayed self-centred role behaviours were also found to be less effective. Regarding adjustment, greater displays of respect were the best predictor, with correlations also found for people with good interaction management behaviours.

The Ruben (1976) scales were adapted by Koester and Olebe (1988) for use with peer observers in American residence halls. Observers and their roommates were from a variety of countries and language backgrounds. After testing, the authors determined that eight of the nine items could be combined to make one scale with good reliability (α=.84), if the item for individualistic roles was removed.

Another intercultural instrument, the Cross-Cultural Adaptability Inventory (CCAI), was developed by Kelley and Meyers in 1987 and revised by the authors in 1989 and 1992 (Davis & Finney, 2003). It was meant as a self-assessment tool for cross-cultural adaptability, but can also be used by observers such as a supervisor, a peer, or a subordinate, to provide feedback (Kelley & Meyers, 1999). It consists of 50 items divided into four dimensions: Emotional Resilience (dealing with stressful feelings in a constructive way), Flexibility/Openness (enjoying interacting with people who are different and being non-judgmental), Perceptual Acuity (being attentive to verbal and nonverbal behaviours and showing sensitivity and empathy), and Personal Autonomy (having a strong sense of self and personal values and being empowered to make one's own decisions). Ratings are on a 6-point Likert scale from *definitely true* to *definitely not true.* The items were developed from a list of traits that the authors culled from the literature and that intercultural experts rated as being the most important in adapting to other cultures. These traits were divided into five skill sets and items were presumably written from these skill sets. After administration to 653 people, one skill set was eliminated leaving four skill sets and 50 items with a reliability of .89 (Kelley & Meyers, 1995). However, a recent analysis of the psychometric properties of the CCAI has failed to confirm the purported structure of the instrument (Davis & Finney, 2003). After administration to 709 university students, the claimed 4-factor structure of the CCAI was found to be a misfit according to several indices. In addition, Davis and

Finney (2003) suggested that the Principle Components Analysis with a Varimax rotation used in the original factor analysis was a poor choice, given the large correlations found between the factors. Consequently, explanatory factor analysis with a Direct Oblimin rotation was conducted to determine the factor structure, but it failed to replicate the original model or reveal another clear structure.

Fantini (1995, 1999) developed a guide to self-assessment in intercultural competence called *Assessing Intercultural Competence: A YOGA Form* (YOGA stands for Your Objectives, Guidelines, and Assessment). It is separated into sections on (a) awareness (of self, languages, cultures, one's reactions to them, how one is viewed by members of a host culture, intercultural differences, etc.), (b) attitude (willingness to interact with, learn from, and communicate with members of a host culture; change roles; show interest; adapt behaviour; reflect on the impact of one's behaviour; suspend judgment; express empathy; enter into dialog; etc.), (c) skills (flexibility, using appropriate behaviour and coping/adaptation strategies, citing socio-political factors, communication and conflict resolution skills, etc.), (d) knowledge (of culture in general, a specific host culture, norms and taboos, culture shock, language learning techniques, one's own behaviour in another culture, history and socio-political issues in own and host culture, cross-cultural models, learning processes, professional area of interest, etc.), and (e) foreign language proficiency. In each area, there are four levels: educational traveller, sojourner, professional, and intercultural/multicultural specialist, with items of increasing difficulty. At the highest levels, the items require in-depth knowledge of theories of intercultural communication and competence. The first two levels of educational traveller and sojourner could be appropriate for use in self-assessment of intercultural competence for the purposes of university students. The instructions indicate that it is also useful to have a native of the host culture, in which students are studying, rate them on the form as well.

Another scale used to measure intercultural sensitivity was developed by Chen and Starosta (2000). The Intercultural Sensitivity Scale is meant to measure the affective component of intercultural communication competence. The authors wrote the items for the scale, which after factor analysis was reduced to 44 items on a 5-point Likert scale from *strongly agree* to *strongly disagree.* There were five factors identified within the scale: Interaction Engagement (concerned with participants' feelings related to intercultural communication), Respect of Cultural Differences (related to how one relates to other cultures and opinions), Interaction Confidence (related to how confident one is in an intercultural setting), Interaction Enjoyment (related to one's reactions

towards communicating with people from other cultures), and Interaction Attentiveness (related to one's efforts to understand what is happening in an intercultural interaction). Reliability for the scale is .86 and it has been shown to be concurrently valid with instruments that measure related constructs.

One of the best-known and most frequently used instruments in assessing intercultural sensitivity is the Intercultural Development Inventory (IDI) created by Hammer and Bennett (1998, 2001). The theory underlying the inventory is the Developmental Model of Intercultural Sensitivity (DMIS), which centres on an individual's perception of difference. As people's understanding of the differences between cultures and their world views deepens, their intercultural sensitivity and effectiveness in intercultural communication increases (Bennett, 1986). Bennett (1986) describes the six progressive stages in this model, each relating to a person's experience with difference between cultures. The first three stages, the ethnocentric stages, are *denial* (lack of knowledge of differences or wide generalisations about them), *defense* (negative stereotyping applied to all members of another group; or *reversal*, in which one's own culture is seen as exclusively negative), and *minimization* (we're all the same underneath). The next three stages, characterised as ethnorelative, are *acceptance* (cultural differences are not judged but simply accepted), *adaptation* (typically exhibited through empathy and more appropriate behaviours for the target culture), and *integration* (ability to be both part of and separate from more than one culture; judgments are made not on the basis of good or bad but on cultural appropriateness). The IDI contains 50 items on five subscales: Denial/Defense, Reversal, Minimization, Acceptance/Adaptation, and Encapsulated Marginality, which involves a multicultural identity with "confused cultural perspectives" and "feelings of alienation" (Intercultural Communication Institute, 2007, The IDI Scales section, ¶ 5). Development is currently underway for a test section that measures constructive marginality, the other part of encapsulated marginality, in which one moves easily into and out of different cultural contexts (Intercultural Communication Institute, 2007).

After taking the test, it produces a graphic profile of the developmental stage of the participating individual or group. The authors claim it is valid for use with any culture; but subsequent research and one attempt at validation of the instrument for use with Japanese students have not supported this claim (Greenholtz, 2005).

The Multicultural Personality Questionnaire (MPQ), developed by Van der Zee and Van Oudenhoven (2000) and further refined and validated in Van Oudenhoven and Van der Zee (2002), is a tool designed to measure multicultural effectiveness. In the

second of these studies, the authors established its predictive validity six months later for international students attending a Dutch university on measures of (a) physical health, (b) mental health, (c) subjective well-being, (d) peer support, and to a modest extent, (e) academic achievement. The scales did not predict negative social experiences. It was also shown to be significantly more predictive of adjustment of international than domestic students. It has also been shown to have predictive validity for successful intercultural adaptation in Leong (2007). Reliability for the five subscales ranged from .72 to .87 in Van Oudenhoven and Van der Zee (2002). The MPQ is composed of 91 items on five subscales: Cultural Empathy (ability to read thoughts and feelings of other people and empathise with them), Open-Mindedness (an open and tolerant attitude towards different customs, values, and people), Social Initiative (extroversion and social skills, proactivity in problem-solving), Emotional Stability (tendency to stay calm in stressful situations), and Flexibility (ability to adjust cognitively and behaviourally to new situations). Participants rate themselves for each quality or personality descriptor on a 5-point Likert scale from *totally not applicable* to *completely applicable.*

Another instrument from the intercultural arena, the Intercultural Adjustment Potential Scale (ICAPS) was developed to measure intercultural adjustment potential in Japanese sojourners to the U.S. (Matsumoto et. al, 2001). This instrument focusses on measuring the personal characteristics predictive of intercultural adjustment rather than overtly international screening measures. It was developed and tested on Japanese sojourners with the intent to later test its generalisability to other populations. Eight studies were conducted in developing and revising the instrument, which give evidence of its internal, temporal, and parallel forms reliability, and of its construct, convergent, external, and incremental validity. Factor analysis was conducted on the 55 questions remaining after testing, which yielded 29 items divided into four factors: Emotional Regulation (items concerning the experience of negative emotions), Openness (items related to openness to artistic, creative, and aesthetic experiences), Flexibility (items related to traditional ideas and gender roles), and Creativity (items related to "a desire for self-direction and freedom from arbitrary constraint" [p. 505, Matsumoto et al., 2001]). However, the four factors only accounted for 18.6% of the total variance in the data set and their alpha coefficients were low (ranging from .43 to .64). The authors indicated a desire to identify a larger number of items for each factor to increase reliability, as well as other future modifications to the instrument.

There are many instruments that have been developed in an effort to both predict and assess intercultural competence, intercultural communication competence, or one or more facets of these concepts. The early scale of Ruben (1976) and its adaptation by Koester and Olebe (1988) relate specifically to intercultural communication competence, and are designed for use by observers. Several scales were written with the purpose of predicting cross-cultural adaptability, effectiveness, or adjustment (Kelley & Meyers, 1999; Matsumoto et. al, 2001; Van der Zee & Van Oudenhoven, 2000; Van Oudenhoven & Van der Zee, 2002) rather than assessing attained competence. Fantini (1995, 1999) was meant to be used as a self-assessment instrument for individuals studying or attempting to develop expertise in intercultural competence, and is an extremely face valid self-report instrument. The two remaining scales described here, Chen and Starosta (2000) and Hammer and Bennett (2001), are valid, reliable scales that cover some aspects of the totality of the area that is of interest in this study. While all of these scales are useful for identifying areas to be considered for inclusion in this study, none covers completely the area sought for the instrument to be used in this study.

Other Internationalisation Assessment Instruments and Current Trends in Outcomes Assessment

In this section, other instruments developed to measure internationalisation that do not fit exclusively into the area of worldmindedness or intercultural competence are reviewed. In addition, a summary of current trends in outcomes assessment at universities in the U.S. and Australia is provided.

Olson and Kroeger (2001) developed scales to survey lecturers and staff from a U.S. university on their global competency and intercultural sensitivity. They identified three primary areas of global competency: substantive knowledge, perceptual understanding, and intercultural communication. The first area, substantive knowledge, was drawn from the work of Wilson (1996) and consists of "knowledge of cultures, languages, world issues, global dynamics, and human choices" (Olson & Kroeger, 2001, p. 118). The second area, perceptual understanding, is the process that we use to understand others and our world, and includes qualities such as open-mindedness, resistance to stereotyping, complex thinking, and Hanvey's (1976) perspective consciousness. The final area, intercultural communication, consists of cross-cultural awareness, qualities such as adaptability and empathy, and abilities, such as the ability to form intercultural interpersonal relationships and the ability serve as a cultural mediator. To create their scale of intercultural sensitivity, they drew on Bennett's DMIS

(1986). The scale consists of 24 questions divided into the six areas of the DMIS, in which participants rate each statement on how well it describes them. The scale for global competency consists of seven questions on substantive knowledge, six questions on perceptual understanding, and 11 questions on intercultural communication.

Sutton and Rubin (2004), working on the GLOSSARI (Georgia Learning Outcomes of Student Studying Abroad Research Initiative) Project through the University System of Georgia have developed an instrument that is meant to cover the learning outcomes associated with study abroad. For two of the domains that they covered in their instrument, "knowledge of strategies and skills for functioning in other cultures" and "knowledge of intercultural interaction techniques" (Sutton & Rubin, 2004, p. 72), they drew on the work of Fantini (1995, 1999). The remaining domains were written to cover knowledge of intercultural interaction techniques, world geography, comparative civics, and global interdependence. After factor analysis, the final survey contained 34 items, which are divided into seven factors: (a) Functional Knowledge (10 "I know" statements related to practical functioning in another country, including language and cultural knowledge), (b) Knowledge of Global Interdependence (5 "I know" or "I understand" statements about U.S. foreign policy, international marketing and manufacturing, and personal and political freedom), (c) Knowledge of Cultural Relativism (4 "I know" or "I understand" statements about cultural difference, understanding, and intercultural interactions), (d) Verbal Acumen (3 "I know" statements about taking risks, talking one's way out of difficult situations, and leading discussions and conversations), (e) Knowledge of World Geography (three "I know" statements about self-rate world geography knowledge), (f) Interpersonal Accommodation (2 "I know how" statements about patience and flexibility), and (g) Cultural Sensitivity (3 "I know" and "I am" statements about intercultural sensitivity and the understanding of the meaning of culture) (instrument sent in personal communication, D. Rubin, March 9, 2004). Reliability for each factor ranged from a low of .50 for Cultural Sensitivity to a high of .93 for Functional Competencies, with the remainder falling between .66 and .82. Caution was advised in interpreting the results related to Cultural Sensitivity due to the low reliability (Sutton & Rubin, 2004).

Kennesaw State University (2004) developed a Student Survey on International Learning to measure Kennesaw students' support for and interest in internationalisation, their perceptions of Kennesaw's support for internationalisation, beliefs about the effects of internationalisation, and knowledge and use of the services available to them

at their university. It is composed of 32 questions on a 5-point Likert scale from *strongly disagree* to *strongly agree*. No information is given on its validity or reliability.

One remaining instrument, which falls neither into the worldmindedness nor intercultural competence camps, the Beliefs, Events, and Values Inventory (BEVI, Shealy, 2004) is worth including, because of the recent collaboration forged between the International Beliefs and Values Institute (IBAVI [home of the BEVI]), James Madison University, and the Forum on Education Abroad (Forum) for its use in study abroad outcomes research (Forum, 2007). The BEVI, and the theory behind it, Equilintegration (EI) Theory, were developed as a method for the development of Combined and Integrated psychologists (Shealy, 2004). It is a way for future practitioners, faculty, and training staff to assess and understand their or their students' beliefs and values, and see how they would affect their future interactions with patients. In so doing, this would allow them to become more competent, professional psychologists, as well as serve as a screening tool for graduate programs to assess the suitability of students for their chosen profession. EI Theory, which explains the way in which beliefs and values are acquired, maintained and integrated, helps to operationalise and assess the values of the psychological profession and the ideal circumstances for the acquisition and maintenance of such values, beliefs, and worldviews. The BEVI consists of 494 belief-value statements made by clients and trainees and revised by 22 clinical researchers, supervisors, and practitioners, which are divided into three validity and 10 process scales. Items are answered on a 4-point Likert scale from *strongly agree* to *strongly disagree,* and have been balanced to minimize the effects of social desirability and other confounds (Shealy, 2004). BEVI results do not take the form of a score, but rather a picture of the beliefs, values, and worldview of an individual. The three validity scales are Basic Openness, Consistency, and Congruency (Deardorff, Comp, Meyer-Lee, Savicki, & Sternberger, 2007; Shealy, 2004) and the 10 process scales are (a) Negative Life Events (items related to negative events, such as poor parent-child relationships, abuse, legal problems, etc.), (b) Naïve Determinism (items related to beliefs about why people are as they are), (c) Sociocultural Cslosure (items related to how people see themselves in relation to racial, global, environmental, and other larger issues), (d) Authoritarian Introjects (items related to people's beliefs of right and wrong, with a focus on how they relate to child-rearing practices), (e) Religious Traditionalism (items related to spiritual worldview), (f) Need for Control (items related to the need to control oneself and others), (g) Emotional Attunement (items related to receptivity and attitudes towards emotions), (h) Self Access (items related to desire and interest in understanding

"inner" phenomena [Shealy, 2004, p. 1082]), (i) Separation Individuation (items related to individuals' ability to differentiate from and examine the effects of relationships and important events in their life, especially with regard to their parents), and (j) Gender Stereotypes (items related to gender roles and heterosexual and homosexual relationships). The reliability for the individual scales ranges from .62 to .87 (Shealy, 2004).

The BEVI Project (Forum, 2007) is a collaboration begun in 2007 between the IBAVI and a number of universities through the Forum on Education Abroad to assess study abroad outcomes. It will use the BEVI to examine the ways in which study abroad may change the beliefs and values of its participants, with particular mention of the areas of "basic openness; receptivity to different cultures, religions, and social practices; the tendency to (or not to) stereotype in particular ways; self- and emotional awareness; and preferred strategies for making sense of why 'other' people and cultures 'do what they do'" (IBAVI, 2007, ¶ 5).

While assessment of the outcomes of study abroad has been happening for years, assessment of overall university internationalisation is a newer trend. The American Council on Education (ACE)'s Global Learning for All project (ACE, 2007) which began in 2003, was one of the first U.S. projects to address university internationalisation as a whole and to require its institutional participants to develop goals and objectives of internationalisation and means of assessing those goals. Eight institutions that enrolled high numbers of minority, adult, or part-time students were selected to participate in this project. The participating institutions were required to create a campus internationalisation leadership team, whose duties included crafting measurable learning outcome objectives for their institution. All institutions also had or created some means of assessing those outcomes.

Deardorff (2004) examined current trends in outcomes assessment of internationalisation in U.S. universities, in particular related to the concept of intercultural competence. Deardorff polled 57 institutions identified by ACE as committed to internationalisation, as well as 16 institutions identified by NAFSA Association of International Educators in Connell (2003) as success stories in university internationalisation. From the 24 institutions that responded, only nine were currently assessing for intercultural competence. The most popular methods used were student interviews, papers, presentations, or observation. About half of the schools were using portfolios, professor evaluation, or pre/post testing (presumably of study abroad), three

institutions were using their own self-report type instrument, and only two were using a commercial self-report instrument.

Assessment efforts of internationalisation in Australia to date appear to be primarily concerned with program quality and institutional commitment (as opposed to outcomes assessment), such as the Internationalization Quality Review Process which was piloted at Monash University in Melbourne, Australia (de Wit, 2002, p. 158). However, there is at least one Australian university with stated goals and objectives for student learning as a result of internationalisation. At the University of South Australia, in 1996, seven graduate qualities were introduced. They focus on outcomes expected of a graduate and are used in all curriculum planning. One of these seven qualities concentrates on the development and application of the skills, awareness, knowledge, and values of a global-minded individual and states that "graduates will demonstrate international perspectives as professionals and as citizens" (Leask, 2001, p. 4). Lecturers are meant to keep these graduate qualities in mind in teaching, selecting materials, organising their classrooms, and assessing students. In addition, at least one assessment of internationalisation at that university has been conducted, which concentrated on student perceptions of curriculum internationalisation (Absalom & Vadura, 2006).

There is also a new project underway in four Australian universities (University of Sydney, Queensland University of Technology, University of South Australia, and the University of New South Wales) related to intercultural competence. The project involves embedding the development of intercultural competence in business education and measuring the effectiveness in teaching and learning terms of that embedding. As part of this project, at Queensland University of Technology, they are working to develop a taxonomy of intercultural competence that can be used in the assessment of tasks in undergraduate business courses (personal communication, B. Leask, January 31, 2008).

In this section, other instruments designed to measure some aspect of internationalisation were reviewed. They are Olson and Kroeger (2001), which was designed for use with university lecturers and staff, Sutton and Rubin (2004), a self-report instrument concerned with student learning outcomes of study abroad, and Kennesaw State University (2004), a local self-rate instrument related to internationalisation at that university. The BEVI (Shealy, 2004) is a long instrument designed to provide a picture of students' beliefs and values in a variety of areas, some of which relate specifically and some tangentially to international issues. This final

instrument is currently being used in a large study abroad outcomes assessment project (Forum, 2007). Assessment of internationalisation as a whole or for intercultural competence at universities in the U.S. and Australia, while on the rise, would only appear to be ongoing at a small percentage of universities.

Primary Internationalisation Activities and their Outcomes

Study and Travel Abroad

There is a huge body of literature on the outcomes of study and travel abroad (see Chao, 2000; Comp, 2003; and Weaver, 1989 for bibliographies of these studies). Although an extensive review of this literature is beyond the scope of this project, a sampling of some of the more recent studies and those that have used some of the instruments previously described provides a good example of the research methods and instruments typical of these studies and the outcomes that have been found.

The Barrows (1981) survey of global understanding was administered to over 3000 first- and final-year undergraduate students and two-year college students at 187 U.S. institutions. The only correlation found between time spent abroad and any portion of the instrument was on the concern subscale of the affective portion of the test for first-year students, but not for final-year university students or two-year college students. However, this was a general travel abroad variable, not a study abroad variable. Support was found for greater foreign language proficiency for students from all cohorts who had spent time outside of the U.S.

In Torney-Purta's (1986) study using a portion of the Barrows (1981) instrument with U.S. secondary school students, she found that having visited another country was a significant predictor for higher performance on the knowledge portion but not the affective portion of the test. Woyach (1988) also found higher scores on a subset of the Barrows' knowledge test for Ohio State University students who had studied abroad.

Hansel (1986) and Hansel and Grove (1986) reported on a study conducted with U.S. high school students who applied for or attended AFS International/Intercultural Programs. First they asked returned students to name personal characteristics that had changed based on their time abroad, and to define those personal characteristics. The students were then asked to write statements that illustrated the behaviour of a person who possessed those characteristics to a varying degree. These definitions and statements became the basis for the self-rate questionnaire. The 17 personal characteristics identified were (a) adaptability, (b) appreciation of own family, (c) awareness and appreciation of home country and culture, (d) awareness and appreciation of host country and culture, (e) awareness of opportunities, (f)

communication with others, (g) critical thinking, (h) exchange of ideas, (i) foreign language appreciation and ability, (j) high standards for personal relationships, (k) independence – responsibility for self, (l) international awareness, (m) non-materialism, (n) open-mindedness, (o) personal growth and maturity, (p) self-confidence, and (q) understanding other cultures. After pilot testing, the instrument was administered to all students who applied for an AFS program in 1981. Of that group, 1116 students subsequently participated in a 3 to 11 month program and 160 did not, and served as comparison group. Three to four months after the students studying abroad returned home, all the students rated themselves on the questionnaire again. Hansel found that students who had studied abroad showed significantly greater increases than students who stayed home, in awareness and appreciation of both the home and host country cultures, foreign language appreciation and ability, understanding other cultures, international awareness, adaptability, awareness of opportunities, critical thinking, non-materialism, and independence, but not in the remaining seven areas.

Carlson and Widaman (1988) compared 304 American students who participated in an exchange program during their third year of undergraduate education in one of six European countries with 519 students who remained at home. They utilised an adaptation of a portion of the Barrows (1981) instrument to assess student attitudes and international understanding. The students were asked to retrospectively indicate their positions on nine questions prior to studying abroad, and then answer the questions based on their current positions. The first nine questions were on a 5-point Likert scale from *nonexistent* to *great.* They were also asked to rate the degree of change they experienced over the course of their study abroad year on nine other questions on a 5-point Likert scale from *reduced considerably* to *increased considerably*. Factor analysis identified two factors in the first set of nine questions: International Political Concern (reflecting awareness and concern of other countries' problems and greater desire for cooperation and peace) and Cross-Cultural Interest (interest in interacting with people from other countries and travelling to other countries). Factor analysis on seven of the second set of nine questions identified two factors as well: Cultural Cosmopolitanism (respect for and valuing of other cultures and languages) and Political Isolationism (based on two items that reflected a spirit of isolationism regarding the problems of other countries). The remaining two questions not included in factor analysis concerned positive feelings and more critical attitudes towards one's own country. Analysis with ANOVAs revealed that students who had lived abroad previous to their junior year already had significantly higher scores on International Political Concern and Cross-

Cultural Interest than the other students. In addition, the study abroad cohort showed significantly greater increases in International Political Concern, Cross-Cultural Interest, Cultural Cosmopolitanism, and both positive and more critical attitudes towards their own country after a year abroad. No effects were found for Political Isolationism. In addition, it was found that females and humanities students had higher levels of Cross-Cultural Interest both prior to and after their year abroad. Females also showed significantly greater growth on Cultural Cosmopolitanism than males, and biological and physical science students showed significantly lower growth in this area than students in other courses of study.

Carlson, Burn, Useem, and Yachimowicz (1990, 1991) created an instrument that included several scales from Barrows (1981), a scale on personal self-efficacy adapted from Harter (1978, cited in Carlson et al., 1990), and some self-composed scales to compare 355 students from four U.S. universities who attended a year-long study abroad program in Europe with an equivalent group that did not study abroad. They analysed interest in other countries, attitudes towards the U.S. and other countries, career orientation, motives for study abroad (for the study abroad cohort), learning styles, personal self-efficacy, and international understanding (including peace and cooperation, cultural interest, cultural respect, and affective measures of domestic orientation and international concern). They found significant gains in foreign language proficiency, interest in international affairs, knowledge of the host country, and increased disapproval of U.S. foreign policy. While the study abroad group did have higher scores on two measures of international understanding (cultural interest and respect, and peace and cooperation) than the group that stayed home, those differences existed prior to study abroad and did not significantly increase after the program, indicating that those who study abroad tend to already be more international-minded. The study did not offer support for the idea that study abroad increased students' self-confidence or sociability.

Cash (1993) reported on the self-assessed outcomes for students from study abroad programs to India, Ireland, and Rome sponsored by St. Mary's College in the U.S. A majority of students from all programs surveyed indicated that they experienced a large amount of growth in certain areas, including appreciation of different cultures, tolerance of people and ideas, self-awareness, the ability to adapt to the unfamiliar, and interpersonal skills. In addition, Cash (1993) examined the results of senior surveys at St. Mary's in 1991 and 1993 and found that those from one or both years who had studied abroad showed significant differences with other students in the areas of

understanding and tolerance for other people and ideas, competence in modern languages, importance of promoting racial understanding, importance of influencing social values, ability to think clearly and critically, knowledge of the problems of the third world, and intellectual interest. However, when comparing final-year students' responses with first-year students' responses in some of the same areas, few significant differences were found for students who had studied abroad. Three areas in which significant differences were found for one of the two cohorts examined were intellectual self-confidence, and the importance of promoting racial understanding and influencing social values.

McCabe (1994) did a qualitative study of 14 students who had participated in the Semester at Sea study abroad program, in which students visit many countries over the course of a semester. After their semester abroad, statements by all of the students indicated greater openness and less fear. Most students also evidenced a move from naiveté to cross-cultural understanding, some evidenced an increased awareness and interest in world events, most developed the ability to see both the good and bad in their own culture, and all became more globocentric. Only three of the participants, however, showed the ability to recognize both the sameness and difference of people, rather than just one or the other.

Hett (1994) administered her scale of global-mindedness to 357 university students. She found that those who had spent more than one total year travelling, living, working, or studying abroad were significantly more global-minded than those who had spent less than a month abroad. Significant differences were also found between those who had not travelled abroad or who had taken only one or two brief trips abroad, and those who had spent more than nine weeks outside the U.S. or Canada or had lived in a community outside the U.S. or Canada.

Ryan and Twibell (2000) examined a subset of 476 U.S. students who participated in the International Student Exchange Program for one or two semesters. At the beginning, during, and after the program, they asked questions about participants' most and least important goals, and how the experience affected their education. They also administered Staub's values and goals questionnaire (1989). This questionnaire measures morals, empathy, justice, human values with regard to others, and one's role in helping others on a 5-point Likert scale from *strongly disagree* to *strongly agree.* They found that there was a significant increase from the beginning to the end of the program in a pro-social values orientation. In terms of educational outcomes, the largest reported outcomes were "an increase in personal growth . . . through seeing another

culture and learning outside the classroom" (Ryan & Twibell, 2000, p. 421). In addition, it was found that from a list of 26 possible goals, the most important goals to the study abroad students were friendship, use of intellect, and personal growth, and the least important goals included wealth, power, and approval.

O'Leary (2001) used the Sampson and Smith (1957) scale of worldminded attitudes with 359 U.S. university students. No association was found between having studied abroad during high school or university and scoring higher on the instrument. In addition, having had an experience out of the country was found to be a negative predictor of worldmindedness for men only. However, subscale alphas for the instrument were very low, indicating that the proposed dimensions of the scale were no longer supported, which is not surprising given the age of the instrument.

In 2001, the British Columbia Centre for International Education (BCCIE) surveyed 97 Canadian students who had studied abroad in various countries. On a self-assessment instrument, three quarters or more of the students reported that their experience abroad had had a positive impact on their development of foreign language skills, need to apply their own ideas to others, and understanding of other cultures and their own cultural perspective, as well as the impact of history and politics on world events and the connection between local and global issues.

Williams (2002) used the CCAI (Kelley & Meyers, 1995) and the Intercultural Sensitivity Index (ISI, Olson & Kroeger, 2001) in pre- and post-testing to look at the development of intercultural sensitivity and adaptability in 27 U.S. students who studied abroad for a semester to 12 different countries on four different continents. They were compared to a control group of 25 students who stayed on the home campus. While the CCAI was found to be very reliable, alphas for the ISI were only .56 on pre-test and .67 on the post-test. Williams found that there were significant increases for those who studied abroad on subscales for Emotional Resilience, Perceptual Acuity, Ethnorelativism, Intercultural Communication Awareness, and on total CCAI and ISI scores. Findings for Intercultural Communication Awareness and Ethnorelativism may be tempered due to higher numbers of females in the study abroad cohort, and the finding that gender had a significant impact on change in these areas. In addition, there were more communication students in the study abroad cohort, and studying communication was also associated with greater change in total ISI score. In addition, multiple regressions were performed to determine whether study abroad students exhibited greater changes in the ISI and CCAI in the context of other possible predictors (demographic variables and exposure to other cultures during one's lifetime and the

previous semester). While the study abroad students did start with higher CCAI, ISI, and total scores, it was found that planned study abroad was not a significant predictor, whereas exposure to other cultures (either in the previous semester or over their lifetimes) was. This held true for both pre- and post-test scores. In addition, Williams found that females and students studying communication demonstrated significantly higher changes in Ethnorelativism than males and students studying business.

Farrell and Suvedi (2003) used self-report questions (on a 5-point Likert scale from *not at all* to *very much*) to examine 70 U.S. students who had attended a twelve-week study abroad program in Nepal. They also conducted case studies of four of these students. The 26 questions asked the extent to which the program contributed to students' development in academics, host country-knowledge, emotional maturity, empathy, flexibility, global perspective, future career path, critical thinking, and problem solving. Highest mean scores were found for knowledge of the host country, different cultures, and international issues, desire to work/study abroad in the future, concern for people in developing countries, appreciation of human differences, and comfort around people who are different from themselves, with means ranging from 4.31 to 4.84. Means over 4.00 were also found for several areas of personal development: self-reliance, ability to cope with unfamiliar situations, open-mindedness, independence, and understanding of own culture. Lowest mean scores related to direction or change in career plans, improvement in academic performance, problem-solving skills, and leadership skills (2.84 to 3.37). Qualitative data indicated a substantial impact for three participants on their professional development and career plans due to greater understanding and awareness of social issues and problems in developing countries. One or more students also demonstrated growth in independence, self-reliance, open-mindedness, critical thinking skills, flexibility, patience, self-confidence, and appreciation of the importance of family, based on statements that they made during the interviews.

In the GLOSSARI project, Sutton and Rubin (2004) surveyed 255 U.S. students from universities in Georgia who had studied abroad during the summer as well as 92 students from those universities who had not studied abroad. Significant differences between the groups were found in the areas of functional knowledge, knowledge of global interdependence, knowledge of cultural relativism, and knowledge of world geography. No differences were found for verbal acumen, interpersonal accommodation, or cultural sensitivity.

Dwyer and Peters (2004) reported on the results of an alumni survey of U.S. students from programs sponsored by IES (The Institute for the International Education of Students) from 1950 to 1999. The self-assessment from over 3,400 former participants indicated that over 90% of students reported that their experience (a) increased their self-confidence, (b) served as a catalyst for increased maturity, (c) had a lasting impact on their world view, (d) helped them better understand their own cultural values and biases, and (e) continued to influence interactions with people from different cultures. Seventy-nine percent of students or greater reported academic benefits from their study abroad experience, including reinforced commitment to foreign language study. Eighty-eight to 94% of students reported that their experience helped them seek out a greater diversity of friends. Dwyer (2004) reported on the same data and compared responses based on program length. Those who had attended full-year programs showed much greater gains in intercultural friendships and awareness, although for some areas (understanding one's own cultural biases and influencing current interactions with people from different cultures) over 90% of participants agreed with the statements from programs of all lengths. Full-year study abroad students also were twice as likely to have obtained a PhD (but not other academic degrees), to demonstrate greater impact on their career development, and to evidence greater changes in their political and social views as a result of study abroad.

Ingraham and Peterson (2004) surveyed students who had studied abroad in various countries through Michigan State University in the U.S. between 1994 and 2000, conducted focus groups with some of these students, and spoke with seven faculty members who had led trips abroad. Post-program surveys were obtained for 1104 students and both pre- and post-surveys with self-report data for a smaller number of students who studied abroad between winter break 2000-2001 and summer 2002. Students answered 31 to 33 questions on a 5-point Likert scale from *not at all* to *very much* on the expected or actual impact of their study abroad experience. In examining only the post-program data, high means were found for the factors of Personal Growth (3.62-4.13) and Intercultural Growth (3.99-4.46), with steady increases corresponding to the increase in program length. Increases based on program length were also seen in the factors of Career Development, Language Learning, and Academic Performance, with means between 2.70 and 3.36 for short-term programs lasting from under 3 weeks to 14 weeks increasing to 3.53-4.00 for academic year programs. For the students for which pre- and post-program comparisons were possible, significant differences were found in pre- and post-test scores, with decreases in the factors of Personal Growth and

Academic Performance. For the factors of Intercultural Awareness, Language Learning, and Professional Development, there were no significant differences. The decreases were attributed to the effect of reporting on expectations prior to study abroad versus actual growth afterwards, where students were led to have high expectations prior to their experience. Qualitative data from teaching staff and students indicated that students learned more and more deeply while studying abroad, demonstrated increased self-reliance and confidence, and showed increased understanding of the differences between their own and other cultures. The least amount of growth was evidenced in the area of professional development, although for some students the experience clearly impacted their career choice. Finally, they reported that there was great personal growth simply as a result of being part of a close-knit group of diverse people from the U.S.

Chieffo and Griffiths (2004) conducted a large-scale assessment of the global awareness of study abroad students with a 21-item instrument they developed (somewhat based on Sutton & Rubin, 2004) to measure perceived and recalled student activities and attitudes. Their instrument was created to measure four areas: intercultural awareness, personal growth and development, awareness of global interdependence, and functional knowledge of world geography and language. Responses from 1509 study abroad and 827 control group U.S. students indicated significantly higher scores for all but five questions.

Savicki, Downing-Burnette, Heller, Binder, and Suntinger (2004) used the ICAPS (Matsumoto et. al, 2001) to compare a group of 19 students from U.S. universities before, during, and after studying abroad for three months with 46 students who stayed in the U.S. that semester. They found that the overall ICAPS scores and some of the scale scores of the study abroad students were higher than those of the control group either at the beginning or end of their program or both, indicating a self-selection of individuals who are already more likely to adjust well to a foreign culture. In addition, the study abroad group had significantly higher scores on Flexibility and Satisfaction with Life from the beginning to the end of the term, and steady increases in Critical Thinking (significance not reported).

Kehl (2005) used Hett's (1994) scale of global-mindedness and Schwarzer and Jerusalem's (1995) General Self-Efficacy Scale to compare three groups of university students: 183 who intended to study abroad, 144 who had studied abroad for eight weeks or less, and 193 who had studied abroad for one semester. He found that there were significantly higher scores on the global-mindedness scale for the group that had studied abroad for one semester as compared to the other two groups and no significant

differences between the groups on self-efficacy. These two studies support the idea that perhaps there is a minimum amount of time abroad necessary to produce changes in the area of worldmindedness.

Peppas (2005) reported on the outcomes of a 2-week business study tour to Europe with U.S. university students over the course of eight program years. Students answered eight, 5-point Likert scale questions from *strongly disagree* to *strongly agree* regarding their self-assessed impact and learning from the program, and two open ended questions on the advantages and disadvantages of the study abroad tour as an approach to business education. Means for the Likert style questions were all above 4.06 and indicated that students felt they had become more accepting of other cultures, were better prepared to work with diverse cultures in the U.S., had a better understanding of how culture related to their subject area, and more insight into their own culture. Responses to the open-ended questions indicated that students felt that they had increased cultural awareness and sensitivity, greater self-confidence, greater acceptance of diversity, improved intercultural skills and understanding, and more international knowledge in their subject area.

Stronkhorst (2005) examined two different groups of students studying abroad on the MPQ, a self-efficacy measure, self-report questions on international, intercultural, and professional competencies, and an English-language test (for those studying in English-speaking countries). Participants from two Dutch institutions included 48 students on exchanges in various countries, 33 students on international agricultural internships, and a control group of 11 students participating in agricultural internships at home. He found that there were increases in English language skills (more for the interns than the exchange students), in cultural empathy and open-mindedness for the interns, and in flexibility for the exchange students (significance not reported). However, the MPQ scores only increased for 35-45% of the students and decreased for some. No other changes were reported. It was noted that the exchange students had very high initial MPQ scores and most had already been abroad. In addition, 60% of the interns and 30% of the exchange students had higher self-efficacy scores after their time abroad, indicating greater self-confidence. On the self-report questions devised by each institution to rate international and intercultural competence, 60% of the exchange students and 40% of the interns felt that they had improved. Only 35-45% of the interns made reasonable to considerable progress on professional competencies, while the remainder did not feel that they had made much or any progress, which was not different from results for the control group.

Fernández (2006) attempted to measure the effects of study abroad on a global perspective with a mostly self-developed instrument (previously described). She administered pre- and post-tests to 244 U.S. students on three to four-week study abroad programs through the University of Michigan. Programs were to a variety of countries, 85% of them outside of Europe. Regression analysis was conducted with demographic factors in the first block, prior collegiate experiences with diversity in the second, pre-test scores in the third, and experiences at the field site (interaction with locals, activities, peer-interactions, interactions with lecturers, research, journaling, and year of study) in the fourth and final block. Experiences at field site explained 3% of variance on ability to think complexly, 26.5% of the variance on positive cross-cultural interactions, 4% of the variance on intercultural anxiety in introducing oneself, 6% of the variance in intrapersonal learning, and 14% of the variance in cross-cultural knowledge. Positive predictors for a global perspective, which appeared more than once, were experience with daily lives of locals (twice), activities at the field site (3 times), positive interaction with student peers (twice), positive interaction with lecturers (3 times), and cohort effect (twice). However, the author admitted that there were serious weaknesses in the instrument used, so the results may not be reliable as an overall measure of a global perspective.

Four recent studies used Hammer and Bennett's (1998, 2001) IDI to assess the effects of a study abroad experience. In Anderson, Lawton, Rexeisen, and Hubbard (2006), students showed significant growth in intercultural sensitivity on two of the subscales (Reversal and Acceptance/Adaptation) after a four-week study abroad experience in England and Ireland but no changes on Defense/Denial or Minimization subscales and only marginally significant higher scores for overall development scores. Medina-López-Portillo (2004) found that only 31% of students on a seven-week study abroad program in Mexico moved to the next developmental stage on the IDI, while 67% did from a 16-week program in Mexico. Engle and Engle (2004) saw an average 33% gain of achievable progress on IDI scores after a semester abroad in France, as well as greater foreign language proficiency. Paige, Cohen, and Shively (2004) found significant gains in overall scores and on the Reversal and Acceptance/Adaptation subscales, but not on the Defense/Denial, Minimization, or Encapsulated Marginality subscales.

The descriptions of these studies demonstrate the wide variety of instruments used to determine the outcomes of study abroad. The instruments range from self-rate questionnaires of questionable validity, to new instruments in the process of

development with varying degrees of validation, to meticulously developed and validated instruments, as well as previously existing and validated instruments. Research designs range from post-study abroad evaluation, to pre- and post-tests, some with control groups, to retrospective analysis of change, to qualitative designs. Outcomes on the self-rate instruments and qualitative studies that involve post-program self-evaluation typically result in positive findings for almost all areas, while those using validated quantitative instruments with less face validity or pre- and post-testing with or without a control group demonstrate some mixed outcomes, although generally, results are either positive or non-significant. Outcomes examined typically fall under the following categories: intercultural competence, worldmindedness, psycho-social development, foreign language skills, other academic skills and knowledge, and professional development.

Enrolment of International Students

While a relatively small number of students have the opportunity to study abroad, especially in the Australian university context, in a university in which there is a large number of international students, all students can in theory benefit from their presence. However, in the U.S., the majority of international students concentrate in the fields of science, math, computer science, and business and over half of degree seeking students are graduate students (IIENetwork, 2006), which decreases their interaction with the general undergraduate student population. In addition, international students do not tend to come from the same countries where most American students study abroad, and do not speak the languages American students study (IIENetwork, 2006, Lambert, 1993). International students generally elect to study abroad in English-speaking countries for academic and career reasons, but once on campus can have difficulty integrating socially with domestic students (Grey, 2002; Lacina, 2002; Lewthwaite, 1996; Owie, 1982; Robertson, Line, Jones, & Thomas, 2000; Sanner, Wilson, & Samson, 2002). In theory, the presence of international students on campus gives domestic students opportunities for intercultural communication, relations, and contact, which can facilitate new knowledge about oneself and others, including global knowledge, empathy, a greater appreciation of the aspirations of others, and the development of intercultural communication skills (Paige, 1983). However, Allport (1954), in formulating his *contact hypothesis*, claimed that four essential conditions must be met for contact between different groups, such as domestic and international students, to have this positive effect: equal status between the groups, common goals, intergroup cooperation, and the support of the authorities involved. Pettigrew (1998)

added an additional condition to this list: friendship potential, and maintained that friendship potential was essential for the generalisation of positive attitudes from one individual to others in the same outgroup (e.g., international students from the same country) and to other outgroups (e.g., international students or people from other countries). Other researchers have added additional conditions for optimal intergroup relations, such as lack of stereotypes, peer-group support for intercultural contact, and whether the groups perceive themselves to be in competition for scarce resources, such as student financial aid (Paige, 1983). However, Pettigrew (1998) contended that these additional factors were only facilitating but not essential conditions. He further proposed that there were four interrelated processes which explain the contact effects: learning about the outgroup, changing behaviour, generating affective ties, and ingroup reappraisal. However, in their meta-analysis of contact literature from 1940 to 2000, Pettigrew and Tropp (2006) found that contact, even when Allport's conditions were not met, generally resulted in reduced intergroup prejudice, which generalised to other members of the outgroup. For studies designed to meet Allport's conditions and more rigorous studies, greater reductions in prejudice were found (Pettigrew & Tropp, 2006).

Several studies at universities, which examined contact between U.S. and international students, demonstrate the positive effects of this type of intergroup contact. Sharma and Jung (1986) surveyed 663 students at six universities in the U.S. on a self-developed scale containing measures of cosmopolitan world outlook, cultural pluralism (willingness to permit peaceful coexistence of different peoples), international career aspirations, understanding of their own culture, worldmindedness, support for international exchanges, and political liberalism (indicated by a "receptivity to innovative transactions between different cultures" [p. 382]). They found that all seven areas were significantly higher for students who reported greater contact with international students. O'Leary (2001) also found that students who reported having an international friend (along with other factors) scored significantly higher on a scale of worldmindedness. Hett (1994) too found that students with more friends from other countries scored significantly higher on her scale of global-mindedness.

Support for intergroup contact theory can also be found in the literature of study abroad. Hofman and Zak (1969) conducted a study with 90 American and Canadian teenage students who spent a summer at a camp in Israel. Their questionnaire contained nine questions concerned with Jewishness and Israel in the areas of (a) closeness (kinship), (b) interest, (c) interdependence (2 questions), (d) solidarity, (e) centrality of Jewishness, (f) helping Israel, (g) immigration to Israel, and (h) the necessity of learning

Hebrew on a 4-point Likert scale. Their responses were compared with rankings on a 7-question scale of contact as rated by camp counsellors. They found that those who had high contact with Israelis became significantly more positive towards Jewishness and Israelis in all areas considered, while those who had low contact became significantly more negative on three questions and showed no change in the remaining ones.

Stephan and Stephan's (1992) study of American student attitudes before and after going to Morocco for four days indicated that contact could decrease students' intercultural anxiety (operationalised as a combination of empathy and attributional complexity), but only when that contact was nonthreatening. Threatening contact, however, served to increase students' intercultural anxiety. However, they also found that high pre-test ethnocentrism and attributional complexity scores were associated with increased anxiety after the trip to Morocco. This indicates that students who are less receptive to international contact may benefit the least if not properly educated or prepared for the experience. Matross, Paige, and Hendricks (1982) also found support for the idea that antecedent variables in individuals often affected their reaction to international students. While students in their study who had more frequent contact with international students were more positive towards them, other antecedent factors were also associated with more positive attitudes, including less conservative political beliefs, being older or female, and living off campus.

There are also two studies that indicate that effectively designed programs that mediate contact between international students and domestic students can bring about positive results. Keye (1981) studied the effectiveness of a training program designed to assist international teaching assistants (TAs) in the U.S. in improving their classroom effectiveness. Previous to the training, 43.5% of American students felt that having an international TA hurt the quality of the course being taken. After the training, negative comments about the TAs declined by 42.9%. Nesdale and Todd (2000) did a field study of an intervention conducted in the residence halls of an Australian university, which brought together Australian and international students. After the intervention, Australian students evidenced significantly greater cultural openness, intercultural knowledge, and intercultural contact both within the residence hall and in the university in general, than the control group from another residence hall. They did not demonstrate any difference in their cultural stereotypes, however.

Researchers who have studied international student integration have suggested various ways to bring about more positive integration, including changes in teaching strategies; activities to facilitate integration; induction programs; providing and

promoting counselling services; and changes in the behaviour of professors, staff, and host country students (Choi, 1997; Grey, 2002; Lacina, 2002; Mullins, Quintrell, & Hancock, 1995; Nicholson, 2001; Owie, 1982; Robertson et al., 2000; Surdam & Collins, 1984).

Despite obstacles to international student integration at U.S. and Australian universities, studies at universities and in other settings indicate that their presence should and does contribute to the worldmindedness of domestic students. Intergroup contact theory helps explain this process and enumerates the optimal conditions for contact, which intervention programs can facilitate.

Internationalisation of the Curriculum

In universities where study abroad is not feasible for the majority of students, universities are looking at alternate ways of providing an international education to their students (Adam, 2003). Nilsson (2003) has coined the term *Internationalisation at Home* (IaH) to describe the concept of any type of international activity with the exception of outbound student mobility. A significant component of IaH, the aim of which is to give all students an international dimension to their education, is internationalisation of the curriculum. However, some international educators believe that internationalisation of the curriculum must be more than acquiring new knowledge about other countries or cultures, infusion of international content into already existing disciplinary courses, or even the addition of new international courses (Mestenhauser, 1998, Paige & Mestenhauser, 1999). The higher-level goals for internationalisation of the curriculum that concern many international education administrators are those of "maintenance and defense of democracy and basic freedoms, human rights, peace and social justice, and international and intercultural cooperation" (Paige & Mestenhauser, 1999, p. 506). Internationalisation of the curriculum should not be a comparative approach where one's own country is put in the centre and everything else is foreign (Paige & Mestenhauser, 1999). It is not just the knowledge base that must change, but the ways of constructing knowledge (Paige & Mestenhauser, 1999). International education should help students develop cognitive competencies that are often not taught explicitly, but come about through international and cross-cultural experiences. This includes the capacity for conceptual alteration, the ability to operate contrary to the established system and to envision alternatives autonomously, and the conceptual ability for self-perception and rapid changes in self-perception (Gergen, 1994). It also includes skills such as critical thinking, creative thinking, cognitive flexibility, and self-reflection (not just looking at oneself critically, but at one's nation as well), as students learn from

their emotional reactions to self-reflection, outside criticism, and conditions of uncertainty (Mestenhauser, 1998). However, some theorists believe that truly learning about other cultures (and by extension, the skills learned through those experiences) is so complex that it cannot be done without extensive time abroad (Lundy Dobbert, 1998). Nevertheless, given the constraints under which most universities must work, teaching staff and administrators developing plans for internationalisation must determine how best to create learning environments that facilitate the development of such skills, without being able to send students abroad for an extended period of time.

Schoorman (2000b) proposes a conceptualisation of internationalisation based on Critical Pedagogy (Aronowitz & Giroux, 1991; Giroux, 1989) that is grounded in pedagogical rather than administrative concerns. In this view, education should be counter-hegemonic and should make explicit the content, instruction, and rationale of the internationalisation process. In terms of content, curricula in a counter-hegemonic education would represent truly global perspectives rather than concentrating on a typical Western European perspective or ignoring certain regions. It would not rely exclusively on texts with an Americanised or westernised perspective. Counter-hegemonic, internationalised instruction would use a student-centred approach, in which instructors serve as facilitators and draw on students' knowledge, with a particular emphasis on bringing in the perspective of international students, and critical examination of diverse perspectives brought out through dialogue with students. Sarles (1998) offers his course outline of a *Mini Course on America* given to a combination of international and U.S. students on a U.S. campus as a means of creating such an atmosphere for interesting dialogue and cross-cultural learning between U.S. and international students. In terms of rationale, a counter-hegemonic education would have global, rather than just local, validity. It would be rooted in the desire for democracy and social justice, creating in students a sense of caring as members of a globally interdependent society, with the goal of improving the world for all its citizens (Schoorman, 2000b).

Schoorman (2000a) also recommends that internationalisation be ongoing, comprehensive, multi-faceted, and integrated. An ongoing plan for internationalisation includes both short- and long-term goals and strategies. Educators must constantly monitor local and global changes and their educational implications. No university should ever describe itself as already internationalised (Schoorman, 2000a, 2000b). A comprehensive system of internationalisation means that lecturers in all academic areas must recognise its relevance and be involved in the internationalisation process

(Schoorman, 2000b). This involvement can reach students not only through teaching but also through academic advising, where professors have a strong influence on whether a student incorporates an international dimension into his or her studies (Carter, 1992). But first, teaching staff must be convinced that internationalisation is not just a politically correct fad (Schoorman, 2000a). Universities should not take the path of least resistance and internationalise exclusively through the use of special programs and centres, simply because it circumvents resistance from teaching staff (Mestenhauser, 1998). Internationalisation must be multi-faceted and implement a wide variety of methods, both inside and outside the classroom. Finally, internationalisation should be integrated into daily academic pursuits and the reward system for teaching staff (Carter, 1992; Schoorman, 2000b).

Lynch (1989), in describing a global multicultural approach to education, suggests that institutions draw up lists of the knowledge, attitudes and values, and skills that they wish to develop in their students to guide in the process of internationalising the curriculum. His sample lists for each area draw from the greater master goals of "creative enhancement of cultural diversity," "achievement of social justice in the form of equality of educational opportunity for all regardless of sex, race, creed or ethnicity," and the "propagation of a sense of shared values, rights and access to political power and legitimate economic and other human satisfaction" (Lynch, 1989, p. 11). The concepts included in these lists concentrate on the knowledge, attitudes, and skills necessary for the development of social, economic, and environmental justice, with particular attention to the concerns of people in developing countries. Green and Olson (2003), in the ACE publication, *Internationalizing the Campus: A User's Guide,* also delineate into knowledge, attitudes, and skills, the international and intercultural competencies that the literature suggests should be developed in students at internationalised universities.

Studies of the outcomes of internationalisation of the curriculum indicate that it can have an effect on both student attitudes and international knowledge. O'Leary (2001) found that students who had coursework in international studies scored significantly higher on a test of worldmindedness. Hembroff et al. (1990), using a portion of the Barrows (1981) test of Knowledge, found that student scores improved significantly from 1984 to 1989, during which time the university had made efforts to enhance the international focus of the curriculum. The number of international courses taken by students was also shown to have a significant positive correlation with test scores. These studies are supported by a study conducted by Drake (1984) on students

whose professors had undergone a Third World Faculty Development Seminar prior to teaching their classes. Students who participated in subsequent classes showed a significant increase in empathy and awareness of conditions in the developing world. Such changes are also supported by Hett (1994) who found that the score on her global-mindedness instrument was significantly correlated with the number of global studies courses taken.

One method of internationalisation that is often overlooked is through programs in which students interact with members of local immigrant communities. Malmö University in Sweden implemented a program in which university students served as mentors for children from immigrant families (Nilsson, 2003). This helped not only in giving students exposure to immigrant families, but in increasing the children's interest in universities studies, in hopes of building a new multicultural climate at the university in the future (Nilsson, 2003). Using these experiences as a base for guided reflection, journaling, and/or intercultural training would further enhance such programs and lead to some of the same skills obtained through time abroad.

Internationalisation of the curriculum should be a university-wide process, incorporating not only teaching and advising staff, but also domestic and international students. The process should begin through the articulation of the knowledge, attitudes, values, and skills that students should develop, with reference to higher level goals such as international cooperation, human rights, and social justice. It should be counter-hegemonic, make explicit the content, instruction, and rationale of the internationalisation process. It should include non-Western perspectives and should not be based on the comparison of other views to Western perspectives with the latter being presumed to be the correct perspective. It should involve not only knowledge, but the ways of constructing knowledge. Activities can extend beyond typical classroom activities to involvement in the local community or programs that bring about interaction between domestic and international students on campus.

The Need for a New Instrument to Measure Internationalisation at Universities

As the previous sections attest, internationalisation at universities entails more than study abroad (the primary emphasis in the U.S. context) or the presence of international students (the primary emphasis in the Australian context). Therefore, an instrument meant to measure overall internationalisation must cover all of the primary components of the internationalisation process, including internationalisation of the curriculum, and all of the possible outcomes of internationalisation, without

emphasising areas that would not be applicable to students who have not spent time overseas.

Most of the existing instruments that could be used to assess the outcomes of internationalisation fall under the rubric of either intercultural competence or worldmindedness, or are self-report instruments designed particularly for study abroad outcomes research. Intercultural competence instruments, in particular the IDI (Hammer & Bennett, 1998, 2001), have been used a number of times in recent research on the outcomes of study abroad but would be less appropriate for use with students who had not been abroad. University administrators working on internationalisation have the task of internationalising universities, the majority of which have only a small percentage of their students studying abroad. For these administrators, it is more logical and inclusive to take a broader view of the goals of internationalisation, in terms of preparing students for responsible global citizenship and successful work in multicultural workplaces, more so than for the ability to integrate culturally while working or living overseas, which will likely only be important for a small percentage of students. Therefore, this study has considered worldmindedness or a global perspective to be the primary goal of an internationalised education and leans more heavily on the worldmindedness/global-mindedness/global citizenship tradition for guidance in developing a new instrument, while also considering elements from the tradition of intercultural competence and intercultural communication competence that are relevant to all university students. Areas of personal development, such as self-confidence and maturity, which are often included in study abroad outcomes assessment, but do not have overtly international dimensions, will not be included in this instrument. Students are likely to exhibit growth in these areas as a result of the home country university experience as well as the study abroad experience and they are not cited as outcomes for other aspects of internationalisation. Therefore, the emphasis of this study is on assessing the elements of a global perspective that are attainable by all university students, whether or not they have experience abroad, including the cognitive, affective, and behavioural dimensions of worldmindedness.

The most valid instruments from the worldmindedness tradition were examined as possible instruments for this study, but none measured all of the areas that were desired for this study. While Barrows (1981) covered the affective area very thoroughly, there was a good deal of duplication of concepts and unnecessary design complexity and some of the questions seemed dated and inappropriate for today. In addition, it did not include any sections related to cross-cultural skills or international behaviours. The

Hett (1994) study covered the affective areas very thoroughly, but included a focus on efficacy that the researcher felt was somewhat tangential to international-mindedness. In addition, Vassar's (2006) internal structure assessment of Hett's scale did not confirm her factor structure. The researcher was not aware of Corbitt's (1998) scale at the time of instrument development. Consequently, the researcher decided to create a new instrument, drawing in part on previous instruments, to measure the effects of internationalisation.

Conceptual Framework and Educational Program Assessment Models

This study was first conceived of from the work of Nilsson (2003), who described the cognitive and attitude goals set by the Swedish Commission on Internationalisation, which were subsequently accepted by Swedish Universities. This work set the stage for the selection of an assessment model that focussed on student learning outcomes. The conceptual framework for the process of defining the areas for assessment of internationalisation and the process of development of an instrument to measure them relied heavily on the work of Hett (1994), which was based on Quayhagen and Quayhagen's (1988, cited in Hett, 1994) process of retroductive triangulation. The work of Barrows (1981) was also instrumental in guiding the selection of areas to cover.

The objectives-oriented model of educational program assessment (Tyler, 1949) was selected as a general assessment framework due to its focus on outcomes assessment. In addition, the logic model of assessment (Fitzpatrick, Sanders, & Worthen, 2004), complemented by Deardorff's (2004) application of that model to internationalisation, articulate well the nature of the process of internationalisation at universities and the need to focus on outcomes and not just activities and their outputs. In addition, the American Association for Higher Education's (AAHE, 1992) Principles of Good Practice for Assessing Student Learning have served as guiding principles for this study.

Tyler (1949) is the father of the objectives-oriented approach to the evaluation of educational programs. In this approach, first an institution should determine what educational purposes it seeks to attain, how educational experiences can be selected that will meet those objectives, how they can be effectively organised, and how it can be determined whether the educational purposes are being attained. In relationship to this study, the establishment of educational objectives and how one can determine whether they are being met is of particular relevance. The first step for any institution should therefore be defining its goals and objectives with regard to internationalisation and

describing them in a format conducive to selecting learning experiences that will facilitate their attainment (Tyler, 1949). Based on Tyler's belief that the fundamental role of education is to change the patterns of behaviour of students, he emphasised the importance of stating not only the content to be learned, but specifically what students should be able to do with that content or how one's behaviour in any life area should change. In order to identify whether objectives are being met and to identify the strengths and weaknesses of an educational program, evaluation prior to, during, and subsequent to the program is necessary. Long-term evaluation months or even years after a program will establish whether behaviours have been permanently changed. In reference to this study, the effects of internationalisation across the student body should therefore be evaluated at the beginning of students' studies, during, and at the end, if possible, some time after graduation. Tyler suggests a variety of methods for evaluation: (a) paper and pencil knowledge tests; (b) observations; (c) interviews; (d) questionnaires on attitudes, interests, appreciations, and behaviour; (e) collection of themes from students' writings or other type of work; and (f) other methods based on the situation and subject area. He emphasised that a single-score summary was not as useful as a summary of strengths and weaknesses within any objective (i.e., offering several scores within each objective is preferable to a summary score).

Deardorff (2004) found that intercultural education administrators unanimously agreed on four specific methods for assessing intercultural competence: observations by others/host culture, case studies, judgment by self and others, and student interviews. Most also agreed on the validity of the following additional methods of assessment: diary analysis, self-report instruments, other-report instruments, and methods such as focus-groups, dialogues, and workshops. Intercultural competence experts principally preferred case studies and interviews, followed by diary analysis, self-report instruments, observations by others/host culture, and judgment by self and others. Both administrators and intercultural competence experts agreed on the importance of both qualitative and quantitative methods of assessment. As Sanders and Horn (1995) emphasise, not every model of assessment is appropriate for every purpose, but standardised instruments are useful in a variety of circumstances. They are particularly useful for the purposes of comparison, generalisation, and decision-making, and have the advantage of being inexpensive, valid, and reliable indicators of student learning. In light of these findings, it is acknowledged that the quantitative instrument developed for this study should be part of a variety of internationalisation assessment measures, each used for different circumstances. One of the strengths of a quantitative instrument of

this nature is that it can be administered to large groups of students relatively easily and economically. Consequently, it may be of particular usefulness in measuring the effects of all types of internationalisation across a university population where qualitative methods would be impractical to use, except with small, sample populations.

Additionally, Tyler (1949) emphasised that whenever possible, the method of evaluation of a behaviour should resemble the implications of the behaviour itself. So in reference to this study, it was thought to be important to measure not just attitudes, but the behaviours that would result from such attitudes. Spitzberg and Cupach (1984) elaborate more on the dichotomy between social skills researchers who overemphasise the behavioural dimension of intercultural communication competence and communication researchers, who overemphasise the cognitive and affective dimensions, and suggest that they should be harmonised. In this study, all three areas will be examined.

Logic models of program evaluation, based on Provus' Discrepancy Evaluation Model (1973), also fall under the rubric of objectives-based models of assessment (Fitzpatrick et al., 2004). In logic models, you start with the input of how participants should be changed as a result of participation in an educational program, and then identify intermediate goals at various points in time that will be necessary for the attainment of the final goals. In this model, you specify (a) inputs, (b) activities, (c) outputs, and (d) immediate, intermediate, long-term, and ultimate outcomes (Fitzpatrick et al., 2004). Deardorff (2004) adapted this model to apply to the university internationalisation process. In this case, the inputs or resources of internationalisation include interested students, funding, and institutional leadership and support. The activities or components of internationalisation, according to Deardorff, include (a) university leadership structures working towards internationalisation; (b) international involvement; (c) curriculum; (d) study abroad; (e) international students, scholars and teaching staff; and (f) international branch campuses. Examples of the outputs of internationalisation, which universities mention most often when describing their international credentials, are the number of study abroad and international exchange programs, the number of students participating in such programs or in foreign language courses, and the number of international students on campus. The final step of the logic model applies to the outcomes of internationalisation, the primary concern in this study. For Deardorff, intercultural competence was the term used to describe one desired outcome of an internationalised education. Here, the terms worldmindedness or global perspective are preferred, given the greater emphasis within those traditions on the

political and humanitarian dimensions and not just the interpersonal dimension. According to Deardorff's model, the long-term impact of internationalisation is the result of the cumulative impact of the inputs, activities, outputs, and outcomes of internationalisation.

The AAHE's Principles of Good Practice for Assessing Student Learning from 1992 were also taken into account in the conception of the assessment process of internationalisation. They are:

1. The assessment of student learning begins with educational values.
2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.
3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes.
4. Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes.
5. Assessment works best when it is ongoing not episodic.
6. Assessment fosters wider improvement when representatives from across the educational community are involved.
7. Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.
8. Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change.
9. Through assessment, educators meet responsibilities to students and to the public. (AAHE, 1992, ¶ 1-9)

As applied to this study, the first, third, and sixth principles point clearly to the fact that the higher-level goals of internationalisation (e.g., international peace and cooperation) need to become embedded into the values of an institution and instigate the development of goals and objectives for international learning prior to any effective university-wide assessment efforts. This process should involve wide participation across the university community, including students, alumni, and employers (AAHE, 1992). When the international goals and objectives are created in this manner, the people involved become stakeholders and will care about the internationalisation process, its assessment and the data that results, and will use them to bring about improvements to the educational experience through the institution's planning, budgeting, and personnel decisions (as elaborated in principles seven and eight). The elaboration of the second principle emphasises that learning "involves not only knowledge and abilities but values, attitudes, and habits of mind," (AAHE, 1992, ¶ 2) which points to the necessity of measuring not only international knowledge, but attitudes, perceptions, and skills. The fourth and fifth principles point to the importance of continuous assessment of the individual components of internationalisation at both

the student and programmatic levels, including individual study abroad program evaluations, assessment of international student academic achievement and integration, assessment of programming meant to achieve international student integration, and assessment of the individual curricular units with international content, as well as the overall curriculum. When assessment is conducted in this manner, it will fulfil principle nine, or the responsibility of the institution to the public, as it will begin to produce students who are responsible citizens and agents for positive change in their societies.

The objectives-oriented model of assessment (Tyler, 1949), AAHE's Principles of Good Practice for Assessing Student Learning (1992), and Nilsson (2003) all emphasise the importance of starting the assessment process by identifying educational goals and objectives, which AAHE emphasises should stem from educational values. These two models and the logic model of assessment as applied to university internationalisation (Deardorff, 2004; Fitzpatrick et al., 2004) all point to the importance of measuring educational outcomes in the form of knowledge, attitudes, behaviours, and skills. Ongoing assessment should use both quantitative and qualitative measures, which serve different purposes and are appropriate in different situations (AAHE, 1992; Deardorff, 2006). In addition to these assessment models, the framework for instrument development in this study was based heavily on the process used by Hett (1994).

Test Development Issues

Because this study involves the development of a new test instrument, there were several issues to be considered. First, consideration was given to issues in the development of individual test questions and issues that can arise when attempting to measure attitudes, perceptions, skills, or behaviours. Second, consideration was given to issues that affect the legitimacy and consistency of the instrument, that is, validity and reliability. Measures recommended in the test development literature for creating an accurate, reliable, and valid instrument are reviewed here.

Bradburn, Sudman, and Wansink (2004) offer the following suggestions on measuring attitudes and behaviours. First, the attitude object should be specifically and unambiguously defined. Questions about an attitude should be pre-tested to make sure any ambiguities are eliminated and the questions are understood by the target population. Questions should not introduce multiple concepts and should only require one answer (and not contain two parts requiring different answers). For any attitude object, the cognitive, evaluative, and behavioural dimensions, that is, the beliefs, opinions, and related actions, should be made explicit. Bradburn et al. (2004) also recommends that when assessing attitudes, it is necessary to take into account the

strength of the attitude through either a built-in measure (e.g., a Likert scale) or another question. When measuring behaviours, it is important to ask about a participant's likelihood of engaging in a behaviour, if it is one that is practiced infrequently. In terms of question order, general questions about attitudes should precede specific questions, and for value-related questions, the question that is likely to receive the most support should be asked first. Additionally, the presence or absence of alternative answers can have a dramatic effect on responses and should be considered carefully (Bradburn et al., 2004).

One of the most important considerations in test development is validity (Gay & Airasian, 2003). Validity concerns whether a test allows a particular interpretation with a particular group of participants. Hence, pilot testing should occur with the same population that will ultimately take the test. There are four types of validity, two of which are of particular importance for this study: *content validity* and *construct validity*. Content validity concerns the degree to which a test measures the subject area it purports to measure. Tyler (1949) recommends that a test should either be face-valid (i.e., directly sampling the area it is trying to appraise), or it should be highly correlated with another face-valid instrument. Within content validity, individual items should be examined for item validity (if the items are relevant to the content area) and sampling validity (whether they adequately sample the area being tested) (Gay & Airasian, 2003). Construct validity refers to whether an instrument actually measures a construct, such as that of worldmindedness, and not some intervening variable. To establish construct validity, many measures should be taken. One of these is to test a new instrument against another instrument that has been independently validated to measure the same construct. Additionally, experts in the field in question can examine the instrument to determine whether it represents its topic well. In addition, its correlation with possible intervening variables can be checked to provide disconfirmatory validity information (Gay & Airasian, 2003).

Another concern in the development of a new instrument is reliability, or the "degree to which a test consistently measures whatever it is measuring" (Gay & Airasian, 2003, p. 141). The measure of reliability that is most appropriate to this instrument is internal consistency reliability. Cronbach's alpha (α) is the appropriate statistical test used to calculate internal consistency reliability for tests with more than two possible scores for each answer. It explains the manner in which items on a test relate to each other and the entire test (Gay & Airasian, 2003). Anastasi & Urbina (1997) recommend a minimum alpha of .80 for a scale to be reliable. Because reliability

is a function of test length, subscales from any one scale are likely to have lower reliabilities than the entire scale (Gay & Airasian, 2003).

Creating a new test instrument requires consideration of good test development practices. Issues related to writing questions to measure attitudes and behaviours, as well as the need for checks of validity and reliability, were addressed in this section.

Development of the Definitions of the Expected and Desired Outcomes of Internationalisation to be Measured

The initial expected and desired outcomes of internationalisation, and their definitions for the purposes of this study, have been drawn from the literature cited previously on intercultural communication and competence, intergroup contact theory, worldmindedness, and the observed outcomes of internationalisation, as well as the theoretical literature on the desired outcomes of an internationalised education. The literature on assessment also guided the selection of general areas to be covered (AAHE, 1992; Spitzberg & Cupach, 1984; Tyler, 1949). As the survey of global understanding (Barrows, 1981) was the most thorough study in this area, it served as a starting point for delineating the instrument's sections. Based on that model, it was determined that there would be sections on foreign language proficiency, international knowledge, and international attitudes and perceptions. A self-rating scale for knowledge of a particular region or country was inspired by Carlson et al. (1991) as an addition to general international knowledge. The literature of intercultural communication and competence inspired an additional scale on cross-cultural skills, and Hett (1994) inspired a scale on international behaviours. The development of the definitions of each concept is described in the next sections.

Foreign Language Proficiency

In looking at foreign language skills, the question of most interest to this researcher was whether students had obtained "usable language skills" (Lambert, 1993, p. 264). The other issue of concern was how to assess an unlimited number of languages. Therefore, it was necessary to find an instrument in which students could assess their own language abilities in any language in all skill areas (reading, writing, speaking, and listening). One of the best-known assessment instruments, produced by the American Council on the Teaching of Foreign Languages (ACTFL), is called the *ACTFL Proficiency Guidelines* (ACTFL, 1983, 1985). These scales cover all four language skills and are divided into easily identifiable levels, but are written for the use of professional assessors. Barrows (1981) chose not to use an earlier version of this scale because of the complexity of the language, which was also a concern for this

study. Consequently, Barrows (1981) developed self-rating scales of Reading, Writing, Speaking, and Listening, which consisted of items that students would say they either could or could not do. These scales were also used by Carlson et al. (1991). However, these scales were not selected for this instrument for several reasons. First, on the lower levels they ask whether students could do things such as "Count to ten in the language" or "Say the days of the week" (Carlson et al., 1991, p. 18) which describe a level of language ability so low that it is essentially meaningless, and is often achieved in the absence of any real communicative ability. On the intermediate levels, descriptions lack the amount of detail necessary for students to answer appropriately. For example, one item asks if students can "Read and understand magazine articles similar to those found in *Time* or *Newsweek*, without using a dictionary" (Carlson et al., 1991, p. 20). What if a student needed to look up one or two words, would that mean he/she should check "no?" Many students, even after years of study and an extended period abroad, cannot go completely without a dictionary, but can essentially do the task. In addition, the format does not allow easy classification of students into various levels, as students can respond negatively to a lower level item, but positively to a higher level item.

The only other validated self-assessment instrument that was located for use in any language is called the Stanford FLOSEM (Foreign Language Oral Skills Evaluation Matrix. It was developed in 1994 by the California Foreign Language Project (CFLP). The Stanford FLOSEM includes subscales on Listening Comprehension, Fluency, Vocabulary in Speech, Pronunciation, and Grammar in Speech. The descriptions for these scales were clearly written, represented a nice progression of abilities typical of the progression of items taught in a language classroom, and had a clear method for creating a language level score for any individual skill and for the composite of skills. In addition, in evaluating speaking, they separated vocabulary from fluency and grammar, which drew a fuller picture of the complexity of speaking a foreign language. Their heavy emphasis on speaking skills was also desirable as this is the skill that most students would have the highest chance of using in the future, given that most foreign language students will not reach a level of proficiency that would allow them to read or write for any formal purposes (such as a job) in a foreign language. Each subscale of the Stanford FLOSEM has 11 levels, with six defined by phrases and the remainder marked as mid-level between the other levels. This scale was tested on high school students in four different languages in a range of years and levels. Students' self-ratings and teachers' ratings of those same students were significantly correlated (CFLP, 1994). Together, the Stanford FLOSEM (CFLP, 1994) and the ACTFL Proficiency Guidelines

in reading (ACTFL, 1986, 1999) and writing (Breiner-Sanders, Swender, & Terry, 2001) served as the theoretical and practical basis for the concept of foreign language proficiency.

Knowledge of a Specific Region or Country

This next area of international learning was meant to acknowledge the achievement of students who had knowledge about a particular country or region due to area studies or experience abroad. The self-rating international knowledge scale used in Carlson et al. (1991) included the topics of political system and institutions, governmental foreign policies, the system of higher education, cultural life (e.g., art, music, theatre, cinema, and literature), geography, and sports and leisure/recreational activities. Because this scale was missing some elements of what is known as *little "c" culture*, additional concepts were pulled from AbiSamra (1999), including beliefs, behaviour, and values. These include topics such as norms and taboos, time orientation, rules of social interaction, standards of dress, and culturally-appropriate greetings (Fantini, 1995). Two additional areas were also deemed relevant for this study by the author: history, and knowledge of the student's specific discipline as it pertains to the selected country or region. These topics were condensed into six areas that the researcher felt were the most important for an international education. The final topics decided upon were knowledge of the region or country as it fits within the student's discipline; history; culture (customs, etiquette, family life, religion, behaviour, etc.); government and politics; foreign policy; and geography, population, and natural characteristics.

International Knowledge

It was decided that the Barrows (1981) test of Knowledge would be an appropriate starting point for the creation of a test section on international knowledge. While Barrows (1981) was created with an American orientation, it was decided by the researcher that the subjects under consideration were equally as relevant to Australian students, and that this study was of high enough quality to serve both to define international knowledge and serve as a starting point for the test questions for this study.

International Attitudes and Perceptions

The obvious starting point for defining international attitudes and perceptions are the most valid previous instruments meant to measure the same or similar concepts, Barrows (1981) and Hett (1994). The affective portion of Barrows (1981) contained four sections covering the topics of chauvinism, world government, war, cooperation, human rights, student self-perceptions, feelings of worldwide kinship, empathy or

concern, environmental pollution, human rights, inter-group conflict, depletion of natural resources, unemployment, inflation, malnutrition and inadequate health care, and international conflict and war. The Hett (1994) scale of global-mindedness contained five factors: Responsibility, Cultural Pluralism, Efficacy, Globocentrism, and Interconnectedness.

Ideas not included in those scales came from a number of additional scales. Opper, Teichler, and Carlson (1990) created an instrument for students who studied abroad, which taps whether students are able to be critical of their own country, show concern for problems of the developing world, have the view that the values of their society are not universal, and have respect for the achievements of nations other than their own. The Denial/Defense subscale of the IDI (Hammer & Bennett, 1998, 2001) has questions regarding cultural relativity and the comparison of students' own culture and co-citizens to others, and the Encapsulated Marginality subscale has questions regarding the feeling that one does not belong to any particular culture. Wiseman et al.'s (1989) instrument asks questions about the comparison of one's own country and citizens to others'.

The dimension of consumer nationalism, or preferring to purchase the products produced in one's own country, was drawn from Rawwas and Rajendran's (1996) instrument. Drake (1984) created a scale that examines attitudes towards the developing world as they relate to perceptions of its people, educational priorities at the university level, economic and other types of oppression by the Western world, and the economic gap between developed and developing countries.

In the ACE (2007) Global Learning for All project, each institution outlined the international learning outcomes that it wished its students to achieve. For Portland State University and California State University, Stanislaus, these included knowledge, attitudes, and skills, some of which are listed below in more detail, where they represent a novel perspective from other literature and instruments.

Both the concepts from these previous instruments, the literature reviewed previously, and several other sources contributed to the definitions of the concepts to be included in the section on International Attitudes and Perceptions. The following preliminary list of concepts, their sources, and definitions was drawn from this literature.

1. **Lack of ethnocentrism –** lack of ethnocentrism (Wiseman et al., 1989); lack of belief that your world view is central to all reality (Bennett, 1986); globalcentrism versus ethnocentrism; perceiving people as the same *and*

different versus the same *or* different (McCabe, 1994); lack of ethnocentrism (way of thinking in which foreign societies are both suspected of being dangerous and believed to be unnatural) (Useem & Useem, 1955); cultural relativism (Church, 1982); understanding the relativity of your country's own values and ways of living (Nilsson, 2003); lack of minimization of cultural differences; lack of assumption of universalism (Bennett, 1986); having as a primary reference group mankind, rather than people of any one nation (Sampson & Smith, 1957)

2. **Lack of chauvinism** – lack of assumption of cultural superiority directed towards any place but your home (Bennett, 1986); lack of consumer nationalism (Rawwas & Rajendran, 1996); pro- *and* anti-Americanism versus pro- *or* anti-Americanism (McCabe, 1994)
3. **Cultural understanding/critical thinking** – resisting oversimplification or overgeneralisation of people and phenomena from other parts of the world; interpreting realistically the reasons why the people in another society act in a specific way (grown out of reality, "not out of self-deceiving slogans and labels, overidealization, or indiscriminate deprecation" [Useem & Useem, 1955, p. 138]); recognition of the degree of differentiation of cognitive structures that are found among different cultures (including discriminations among people, objects, time, and other aspects of man-made environment) (Triandis, 1977); analysing the power structure of which one is a part and an alertness to the political consequences of behaviour in everyday work and social settings (Cleveland et al., 1960); critical thinking – an inclination to be discriminating and sceptical of stereotypes; "a tendency not to accept things as they appear on the surface" (Hansel & Grove, 1986, p.86); categorizing behaviour more broadly (not according to one's own narrow cultural values, but accepting that a behaviour or situation might have different meanings) (Detweiler, 1980); a conceptual ability for self-perception (Gergen, 1994); perceptiveness (Cleveland et al., 1960)
4. **Emic thinking** – the ability to see others as they see themselves, given their conditions and values (ACE, 2007); searching for frames of reference that exist in the culture itself (Paige & Mestenhauser, 1999); viewing priorities of other cultures from the perspectives of those cultures (Nilsson, 2003); making judgments of good or bad as statements of appropriateness to one or another cultural frame of reference (Bennett, 1986); cosmopolitan world

outlook transcending local loyalties and values (Sharma & Jung, 1986); cultural cosmopolitanism (Carlson & Widaman, 1988); perspective recognition – recognizing how perspective is shaped by cultural, ethnic, racial, geographical, and national factors (Selby, 1991); seeing issues from more than one perspective, together with recognition of one's own perspective; an understanding of how culture influences perspective (ACE, 2007)

5. **Acceptance and respect of cultural, racial and language differences –** lack of racism (Barrows, 1981); tolerance (ACE, 2007; Cash, 1993; Lentz, 1950); cultural pluralism; willingness to permit peaceful coexistence of different people (Sharma & Jung, 1986); appreciation of diversity; absence of prejudice (Hett, 1994); acceptance, acknowledgement, and respect of difference; lack of negative stereotyping (Bennett, 1986); openness, understanding, and respect for all people and their cultures, values, and ways of living (Nilsson, 2003); appreciation for diversity, openness, and tolerance (Reiff, n.d.); appreciation of the importance of multicultural diversity to professional practice and citizenship; valuing of language and culture diversity (Leask, 2001); reduction in intolerance and stereotypes; favourable attitudes towards foreign cultures (Church, 1982); appreciation, understanding, and respect for diverse cultures (ACE, 2007; Lynch, 1989); feeling comfortable with foreign people; having a positive attitude towards foreign languages (Barrows, 1981); cultural empathy – understanding the logic and coherence of other cultures and the restraint to avoid negative attributions based on perceived differences with your culture (Cleveland et al., 1960)
6. **Cultural and national self-awareness –** recognition of how the ways one's own society might be perceived by others; perspective consciousness – acknowledgment that your view of the world is different from others (Hanvey, 1976); self-awareness of own culture; willingness to recognise the roots of one's own beliefs and behaviour, and understanding that others may differ (ACE, 2007); understanding of own culture (Sharma & Jung, 1986); critical analysis of own culture and problem areas in international relations (Nilsson, 2003)
7. **Interest in global affairs –** interest in global developments/news (Barrows, 1981); interest in world affairs (Hett, 1994); curiosity (Lynch, 1989)

8. **Interest in other cultures –** interest in other cultures (Barrows, 1981); cross-cultural interest (Carlson & Widaman, 1988); increased interest in international activities (Church, 1982)
9. **International political and humanitarian concern –** international political concern (Carlson & Widaman, 1988); desire to act as a responsible, global citizen (ACE, 2007); ethic of responsibility/care; community vs. individualistic orientation; belief in meeting universal human needs (Hett, 1994); human dignity, justice, and fairness (Lynch, 1989); concern for the developing world (Drake, 1984); support for the exchange of materials, techniques, and people on an international scale (Sharma & Jung, 1986); sensitivity to ethical questions and social problems in society due to injustice, disease, and war (Thompson & Deer, 1988); positive attitudes towards international cooperation and solidarity (Nilsson, 2003); interest in the "maintenance and defense of democracy and basic freedoms, human rights, peace, social justice, and international and intercultural cooperation" (Paige & Mestenhauser, 1999, p. 506); awareness of long-term consequences of behaviour on environment and global society; focus on non-violent conflict resolution and cooperative international relations (Hett, 1994)
10. **Empathy** – understanding the emotions another is experiencing, as a state past ethnocentrism and in relation to foreigners (Stephan & Stephan, 1992); interpersonal sensitivity – degree of awareness and understanding of verbal and non-verbal human behaviour (Redden, 1975); awareness of feelings of others, even those less apparent (Chen, 1992); understanding accurately the feelings of another person (Hammer et al., 1978)
11. **Recognition of interdependence –** interdependence of lands and peoples (Selby, 1991); understanding the connectedness of quality of life and survival; recognition and acceptance of the imperative of interdependence and interconnectedness (Reiff, n.d.)
12. **Global kinship –** feeling of kinship with foreign peoples (Barrows, 1981), openness versus fear (McCabe, 1994), interconnectedness of humanity, kinship, global belonging (Hett, 1994)

These concepts drawn from the literature were condensed into the three general areas of respect for other cultures and nations; interest in other countries, cultures, and global affairs; and international political and humanitarian concern, found in Table 1,

while the original sub-areas and definitions were retained for use in question development.

Table 1

Preliminary Definitions of International Attitudes and Perceptions

Attitude or Perception	Definition
Respect for other cultures and nations	Acknowledgement, acceptance, appreciation, and understanding of differences and diversity in people, cultures, languages, races, values, and ways of living. Understanding the logic and coherence of other cultures from their frame of reference. Ability to see and appreciate both the good and bad in your own country and culture, and awareness of how they might be perceived by outsiders. Recognition and acceptance of the global kinship of mankind and absence of irrational fear of foreign people, cultures, and nations.
Interest in other countries, cultures, and global affairs	Curiosity about and interest in other cultures, other countries, their inhabitants, and world affairs, especially in the area of international relations.
International political and humanitarian concern	Concern for meeting universal human needs, especially for those in the developing world, and a positive attitude towards international cooperation and solidarity. Empathy for people from other countries. Interest in the maintenance and defence of democracy, basic freedoms, human rights, peace, and social justice.

Cross-Cultural Skills

Various authors who have attempted to describe the proposed goals of an international education have delineated them into knowledge, attitudes, and skills (ACE, 2007; Green & Olson, 2003; Lynch 1989). The line between attitudes and skills can at times be unclear, but an attempt was made to draw out those skills that would be developed through cross-cultural interactions. However, only those skills with an international dimension were considered for inclusion, even though skills such as courtesy, patience, independence, and sociability are associated with intercultural success (Kealey & Ruben, 1983). Because those skills are normally associated with growing up, maturing, and going to university, among other things, it would be inappropriate to assume that students acquired them as a result of internationalisation, given the design of this study.

The following existing instruments contributed a number of ideas to the concept of cross-cultural skills. Chen (1992) used a reduced version of Ruben's (1976) Intercultural Behavioral Assessment Indices with American and international students to measure intercultural communication competence. It describes several behaviours relevant to the construct of cross-cultural skills, such as respect for the feelings and experiences of others; assumptions about others' perceptions, attitudes, and feelings; assumptions about the similarity of people of the same cultural heritage; and tolerance for ambiguity.

Kennesaw State University (2004) in its Student Survey on International Learning included questions related to having friends from other countries and enjoying discussions with people whose ideas and values are different. Stephan and Stephan (1992) measured the concept of intercultural anxiety, as it pertained to students interacting with Moroccans on a study abroad program. They also used Fletcher et al.'s (1986, cited in Stephan & Stephan, 1992) Scale of Attributional Complexity, which asks students to report on their own thoughts in trying to understand the relationship between people's behaviours and personalities as a function of their society.

The remaining concepts listed below were culled from the literature of internationalisation and intercultural communication and competence.

1. **Mental flexibility** – a capacity for rapid conceptual alteration and changes in self-perception; a capacity to envision alternatives autonomously (Gergen, 1994); cognitive flex – degree of openness to new ideas and beliefs (Redden, 1975)
2. **Behavioural flexibility/adaptability** – culinary adaptability (Mumford, 1975, cited in Kealey & Ruben, 1983); behavioural flex – the degree to which one's own behaviour is open to change (Redden, 1975); adaptability – ability to deal flexibly with and adjust to new people, places, and situations; "willingness to change behaviour patterns and opinions when influenced by others" (Hansel & Grove, 1986, p.86); receptiveness (Cleveland et al., 1960); ability to deal effectively with different social customs (Hammer et al., 1978)
3. **Cross-cultural communication skills** – ability to communicate effectively across cultures (ACE, 2007); ability to enter into meaningful dialogue with other people; ability to interact with a stranger; ability to deal with communication misunderstandings between oneself and others; ability to deal effectively with different communication styles (Hammer et al., 1978); information-transfer competence – transmission of information with minimum loss and distortion; compliance-gaining competence – persuasion and securing appropriate level of compliance or cooperation (Ruben, 1989)
4. **Relational skills** – ability to develop and maintain interpersonal relationships (Hammer et al., 1978); relational-building and maintenance competence – establishment and maintenance of positive relationships (Ruben, 1989); ability to make friends with host nationals (Chen, 1992)
5. **Tolerance for ambiguity** – tolerance for ambiguity (Ruben, 1976); tolerance for ambiguity without nervousness or frustration; ability to adapt to new

situations with speed and resilience and without personal expressions of hostility (Chen, 1992)

6. **Cooperation** – cross-cultural friendliness (Mumford, 1975, cited in Kealey & Ruben, 1983); ability to work with other people effectively (Hammer et al., 1978); intergroup cooperation (Allport, 1954)
7. **Self-Control** – emotional stability – tendency to stay calm in stressful situations (Van Oudenhoven & Van der Zee, 2002); display of respect (Ruben, 1976); not immediately evaluating things (Barna, 1994); showing respect for others' feelings, experiences, and potentials; showing respect for others as persons of high potential and worth (Chen, 1992); avoiding the anger associated with being taken advantage of (Stephan & Stephan, 1992)

Those concepts were then condensed into the following three areas, described in Table 2.

International Behaviours

The only instrument that specifically lists the behaviours that would be expected of an internationally-minded person comes from Hett (1994). As an addition to her global-mindedness scale, Hett created a section on global-minded behaviours, including (a) contributing money to or participating in international, human rights, or environmental organisations; (b) seeking out people who speak different languages or

Table 2

Preliminary Definitions of Cross-Cultural Skills

Skill	Definition
Mental and behavioural flexibility	Ability to change opinions based on new information and to see issues from more than one perspective. Ability to change behaviour, and adjust quickly and without great difficulty to new people, places, situations, customs, and food. Ability to deal with ambiguity and difference without feeling nervous, frustrated, or hostile.
Cross-cultural communication skills	Ability to communicate successfully both on superficial and deeper levels with people from other cultures who have different communication styles.
Cross-cultural relational skills	Ability to develop and maintain relationships in various settings (school, work, personal) with people from other cultures.

are from different backgrounds; (c) recycling; (d) voting; (e) discussing current events and world issues; (f) reading news articles or viewing TV programs with an international focus; (g) political involvement; (h) involvement in international student programs; and (g) writing members of Congress. The behaviours she believed to be important for an internationally-minded individual inspired a number of the questions for international behaviours.

Summary

The literature of study abroad, international student enrolment, intergroup contact theory, internationalisation of the curriculum, intercultural communication and competence, and worldmindedness were reviewed to develop a list of the expected areas of growth in students at an internationalised university. Previous instruments were reviewed for their usefulness, and some were selected as a starting point for scales in this instrument. For the affective areas, specific attributes were culled from previous instruments and the literature previously described to develop a list of the concepts to be included in the scales of International Attitudes and Perceptions, Cross-Cultural Skills, and International Behaviours. For International Attitudes and Perceptions and Cross-Cultural Skills, these lists were condensed into definitions of each area. The next section describes the development and administration of the instrument used in this study.

Method

The experimental design and the research questions guiding this study are described in this chapter. The process of development of the instrument used in the study is discussed individually for each of the seven sections of the instrument: (a) Foreign Language Proficiency, (b) Knowledge of Specific Region or Country, (c) International Knowledge, (d) International Attitudes and Perceptions, (e) Cross-Cultural Skills, (f) International Behaviours, and (g) Background Information. Pilot testing and consequent refinement of the instrument is described within individual instrument section descriptions where applicable. Further details are given on the participants in the study, the test materials, and procedures used for administering the instrument. Finally, procedures used for analysing the data are discussed.

Experimental Design

Previous research described in the literature review on the three primary areas of internationalisation, namely, study abroad, contact with international students, and internationalisation of the curriculum, has already established that these experiences can bring about changes in students. Pre- and post-test quantitative designs in study abroad have indicated that students experience changes in their attitudes, skills, behaviours, and knowledge as a result of the study abroad experience (Anderson et al., 2006; Carlson et al., 1991; Engle & Engle, 2004; Fernández, 2006; Hansel & Grove, 1986; Medina-López-Portillo, 2004; Paige et al., 2004; Ryan & Twibell, 2000; Williams, 2002). Retrospective analysis of study abroad experiences and qualitative research have corroborated these findings (Carlson & Widaman, 1988; Chieffo & Griffiths, 2004; Dwyer & Peters, 2004; McCabe, 1994; Peppas, 2005). Both pre- and post-test designs and meta-analysis of intergroup contact have also supported the theory that contact between international and domestic students can bring about positive changes (Hofman & Zak, 1969; Pettigrew & Tropp, 2006; Stephan & Stephan, 1992). Testing student groups over the course of several years as the curriculum was increasingly more internationalised has also indicated causality in outcomes for international knowledge Hembroff et al. (1990). Causality was also demonstrated in changed attitudes and knowledge in students of professors who were educated on the developing world (Drake, 1984). Together, these studies provide the basis for a quasi causal-comparative design. Although causality cannot be assumed for demographic variables, for those related to the primary inputs of internationalisation, it will be.

Research Questions

The research questions for this study were derived from the gaps in the literature on university internationalisation and its effects on domestic students. The five primary research questions guiding this study are:

1. Based on the literature and international education administrators, what are the expected student outcomes of the internationalisation of universities in the U.S. and Australia?
2. Are exiting undergraduate students at internationalised universities significantly different than entering students, based on various measures of internationalisation?
3. What background variables are correlated with higher scores on the various measures of internationalisation?
4. What aspects of internationalisation are correlated with higher scores on the various measures of internationalisation?
5. How do the three universities in the study differ on the various measures of internationalisation?

Participants

The target population for this study was first- and final-year undergraduate students at two universities in the U.S.: Kennesaw State University (KSU) in Kennesaw, Georgia, and University College at Buffalo State (also known as Buffalo State) (UCBS) in Buffalo, New York, and at one university in Australia, Griffith University (GU) in Brisbane, Queensland. Permission to conduct research on human participants was received from all three universities prior to pilot testing. Because the instrument consisted of over 100 questions, a low response rate was expected (5%). As such, all first- and final-year students from each university were requested to complete the survey, rather than using a random sample. First-year students were contacted at the beginning of their studies and final-year students at the end of their studies, so as to maximise the amount of time they had spent at university. As the purpose of the instrument is to measure the effects of internationalisation on domestic students, only those students who were citizens or permanent residents of the country in which they were studying were requested to complete the survey. Students who completed the online survey instrument were entered into a raffle of three $100 prizes.

A total of 1302 students from the three universities completed some or all of the survey: 575 GU first-year students, 265 GU final-year students, 90 UCBS first-year students, 151 UCBS final-year students, 67 KSU first-year students and 154 KSU final-year students. This represented an overall return rate of 4.96%.

Procedure and Instruments

The content of the instrument for measuring the success of internationalisation was developed from those outcomes previously shown to result from one or more aspects of internationalisation, or theoretically proposed as expected results of internationalisation. The instrument consists of seven sections: (a) Foreign Language Proficiency, (b) Knowledge of a Specific Region or Country, (c) International Knowledge, (d) International Attitudes and Perceptions, (e) Cross-Cultural Skills, (f) International Behaviours, and (g) Background Information. The methods used for testing the validity and reliability of each subscale will be described by section. The final versions of the instrument for Australia and the U.S. can be found in Appendixes A and B.

Foreign Language Proficiency

It was decided that the Stanford FLOSEM (CFLP, 1994), which includes subscales on Listening Comprehension, Fluency, Vocabulary in Speech, Pronunciation, and Grammar in Speech, would be the most appropriate instrument for students' self-evaluation of their oral language skills. Permission was sought and granted to use the scale in this study (see Appendix C). This instrument has already been tested for validity through comparison of high school teachers' ratings of their students with students' self-ratings (CFLP, 1994). Student and teacher ratings were significantly correlated (r=.71, p<.001).

Because the Stanford FLOSEM covers only oral skills, equivalent reading and writing scales were developed with reference to the newest versions of the ACTFL reading (ACTFL, 1986, 1999) and writing (Breiner-Sanders, Swender, & Terry, 2001) guidelines. The new scales were tested for validity in the same manner as the Stanford FLOSEM. The scales were administered to 61 students from first- and third-year Chinese and second- and third-year Italian classes at GU. The lecturers were asked to rate the students on the same scales. Pearson Product Moment Correlations were performed to determine whether there was a correlation between the ratings of the teachers and the students' self-ratings (see Table 3). The correlation for the reading scale was significant at the .01 level. The correlation for the writing scale was also significant at the .01 level. For the individual classes of students, only the correlations for the third-year Chinese students reached significance, at the .05 level. Although these correlations were not as strong as those reported for the Stanford FLOSEM, this was not a surprising result. The FLOSEM was tested on high school students, who usually have much closer contact with their teachers than do university students with their lecturers.

Table 3

Pearson Product Moment Correlations for Reading and Writing Scales Pilot Study

Language groups	Reading	Writing
Chinese 1	0.42	0.47
Chinese 3	0.61*	0.60*
Italian 2	0.28	0.37
Italian 3	0.30	0.47
All groups	0.37**	0.37**

*$p < .05$ level (2-tailed). **$p < .01$ level (2-tailed).

Overall, the students rated themselves higher on these scales than did the teachers. This is similar to results for other self-rating instruments, where students tended to rate themselves higher than did their teachers (Carlson, Burn, Useem, & Yachimowicz, 1990; Padilla & Sung, 1997). However, because the emphasis of this study is not on determining an absolute level of foreign language proficiency, but rather on comparing students, and because potentially inflated scores due to self-rating should be present in all student groups, such score inflation will not be relevant in this study. The only potential exception is that students who have had actual exposure during a study abroad program to the language they study tend to rate their abilities more realistically (Carlson et al., 1990). In order to control for this, students who had visited countries in which their target language was used were identified through a question and compared to those who had not.

Knowledge of a Specific Region or Country

This self-rating scale was developed based on the literature, including concepts drawn from one previous scale (Carlson et al., 1991), and with additions from the author. For each area, participants were asked to rate their knowledge according to the following criteria, which were assigned numerical values from one to six afterwards: (a) familiar enough to have a casual conversation on this topic, (b) familiar enough to write a paper on this topic, (c) familiar enough to accept employment where knowledge of area was required, (d) familiar enough to give a formal presentation on this topic, and (e) familiar enough to teach a short course on this topic (with preparation), and (f) none of the above. Because this was essentially a new scale, content validity needed to be established. Two international educators from the U.S. were requested to serve as content validity judges. They examined the test for both sampling validity (i.e., how well the instrument samples the total content area) and item validity (i.e., whether the test items are relevant to measure the content area) (Gay & Airasian, 2003). Changes were made based on their suggestions. No criterion reference validation was possible for this scale, as there are no other existing scales of this nature (other than Carlson et

al., 1991, which has not been validated independently, but rather as part of a much larger instrument).

International Knowledge

This instrument was based on the Barrows (1981) survey of global understanding's test of Knowledge. Permission for use of this instrument is included in Appendix D. The sampling validity of this test was established during the instrument's initial development by a committee of experts in international affairs. The test was administered to a total of 2,106 first- and fourth-year undergraduate students randomly sampled from 119 universities of varying sizes and types across the U.S., as well as 908 students from 68 two-year U.S. institutions. The internal consistency of the test was examined using the Kuder-Richardson formula #20. Reliability coefficients for the test were .84 for first-year students, .86 for fourth year students, and .87 for two-year college students (Barrows, 1981).

In modifying this test for use in this study, there were three primary considerations. First, questions were selected that remain relevant today, given the age of the test. This meant that questions were not selected that contained information that was out-of-date or no longer accurate, and there was not a preponderance of questions on issues that are not as important today as they were in 1981 (e.g., U.S.-Soviet relations). Second, questions could not be biased towards either American or Australian students; and third, when possible, questions were selected to represent an even distribution of easier and harder questions, based on student performance on the original test (as determined by the researcher with reference to the Barrows' data). In addition, to the largest extent possible, the number of questions from each original subject area were retained in the same proportions. However, none of the four questions from the area of distribution of natural characteristics were included, because they required graphic images incompatible with the survey-making software used to administer the test. Some questions were altered to bring the test up-to-date and clarify the language, and 13 additional questions were written to cover current issues not adequately covered in the original test (e.g., terrorism and climate change). Selection of questions from Barrows, identification of new issues, and development of questions and answers were done by the researcher in collaboration with two lecturers of International Relations from Griffith University. New questions related to climate change were also reviewed by two individuals working in the environmental field, one with a Master's degree in Conservation Ecology and Sustainable Development and the other with a Master's degree in Environmental Marketing. In the first pilot test (found in Appendix E), the

new questions were numbers 5-8, 10-13, 16-18, 21, and 22. Only five of the new questions were retained in the final version of the test (numbers 5, 6, 8, 13, & 16 in the final instrument, Appendixes A & B).

The first iteration of this test was piloted on 72 first-year students (25% of whom were international students) in a class in the Department of International Business & Asian Studies at GU. The test with the correct answers in bold can be found in Appendix E.

The mean score for the 23 questions was 11.88 and the standard deviation was 2.52. The reliability of the entire scale, calculated using Cronbach's alpha, was quite low (.29), indicating that it did not measure one homogeneous concept. Factor analysis did not yield any type of interpretable multi-dimensional structure. However, 10 of the questions positively loaded on one factor with a Cronbach's alpha of .53. As a result, a number of questions were eliminated, the wording of others was changed, and the incorrect responses to others were changed to determine if that would improve their reliability. Additional questions from the original test were added to create a new pilot test consisting of 27 questions, which can be found in Appendix F.

A random sample of 500 GU, final-year students was invited to take this second test in online format. The sample was taken by selecting every 13th student from a list of all GU final-year students. Only domestic students were invited to participate, in order to sample a population similar to the target population. Forty-two students completed the test. The mean score was 15.02, with a standard deviation of 4.84. Cronbach's alpha for the entire scale was .78. Questions 5, 11, 12, 14, 18, 25, and 26 were the least reliable of all the questions, and were deleted to create a 20-item scale with an alpha of .80, which is considered within the desirable range for demonstrating reliability (Anastasi & Urbina, 1997). The final scale consists of the following distribution of questions by subject: population (3); relations among states (2); international trade and monetary arrangements (2); energy (1); environment (1); food (2); health (1); arts and culture (1); war, armaments, and terrorism (3); religion (1); human rights (1); racial and ethnic issues (2).

International Attitudes and Perceptions

Because this was a new scale, content validity needed to be established. The first step was to establish sampling validity, or complete coverage of the content area, during the stage in which the list of concepts to be covered had not yet been converted to questions. A panel of seven experts drawn from the international education communities in the U.S. and Australia was contacted via e-mail to examine the list of content areas

for any omissions in the concept of international attitudes and perceptions. The content area experts were either previous colleagues of the author in the field of international education or individuals who had come to the attention of the author through leadership positions in international education in the U.S. or Australia, conference presentations they had given on intercultural issues, or articles they had written on internationalisation of the curriculum. All were individuals who through their education, professional experience, and personal qualities were believed by the researcher to be internationally-minded, experienced, and educated in these concepts. More information on these individuals can be found in Appendix G. Feedback from the six experts who submitted their responses by the deadline was incorporated into the final definitions in Table 4.

Table 4

Final Definitions of International Attitudes and Perceptions

Attitude or Perception	Definition
Respect for other cultures and nations	Self-awareness and knowledge of one's own culture. Acceptance, appreciation, and understanding of differences and diversity in people, cultures, languages, races, values, and ways of living. Understanding the logic and coherence of other cultures from their frame of reference. Ability to objectively observe and appreciate both the good and bad in one's own country and culture, and awareness of how they might be perceived by outsiders. Absence of irrational fear of other people, cultures, and nations. Willingness to make the extra effort required to interact and work productively with people from other cultures.
Interest in other countries, cultures, and global affairs	Curiosity about and interest in other cultures, other countries, their inhabitants, and world affairs, especially in the area of international relations.
International political and humanitarian concern	Concern for meeting universal human needs, especially for those in the developing world, and a positive attitude towards international cooperation and solidarity. Interest in the establishment and protection of human rights, peace, and justice. Empathy for people from other countries. Recognition and acceptance of the interconnectedness of lands and peoples and its importance for the survival of mankind.

After content validity was established, the researcher wrote questions for each area and submitted them to these experts to establish item validity. The same method for establishing item validity was used as in Hett (1994), where the judges marked each item on a 4-point Likert scale from *not valid* to *very valid*. A Content Validity Index (Waltz, Strickland, & Lenz, 1984, cited in Hett, 1994) was calculated for each item and less valid items were deleted. Items with the highest validity scores were retained for pilot testing. The UCBS pilot version of this test can be found in Appendix H.

In order to establish construct validity and internal consistency reliability (Gay & Airasian, 2003), a pilot study on a population similar to the one to be studied was conducted. All participants were asked to complete this section of the test, as well as the

sections on Cross-Cultural Skills and International Behaviours, and a shortened portion of the Barrows (1981) scale of Attitudes and Perceptions. The researcher selected only 20 of the 32 Likert scale questions from the Barrows test in order to prevent participant fatigue. Questions selected were representative of the whole test and relevant for today.

Two hundred and fifteen domestic students from all three participating universities completed the pilot test. This included 38 final-year students in one- or two-year programs from GU who completed the test online, 78 first-year students from UCBS who completed the paper version of the test in their residence halls or in various classes (INS 207: Success in College; HON 100: All-College Honors Seminar; HUM 100: Introduction to Humanities; and SWK 105: Interpersonal Relations), and 99 first-year students from KSU who completed the test in class either using the paper version or online in different sections of KSU 1101 (KSU Freshman Seminar) and ENGL 1101 (Composition I). The version used for GU and KSU students did not include section titles, but the UCBS version did, in order to determine the effect of these on student responses. No differences were found on the basis of the inclusion of titles, so they were included in the final version of the test. Australian and American versions of the tests differed only in spelling and word usage.

The reliability for the scale of 28 items calculated with Cronbach's alpha was .89. Three items were deleted in order to make the scale more reliable: 1, 16, and 24, resulting in an alpha of .90. Because the scale was highly reliable and too long for the final version, factor analysis was performed using Principal Axis Factoring with a Varimax rotation to determine which questions to eliminate. An interpretable multiple factor structure could not be identified. However, the remaining questions loaded strongly on one factor (and not the theoretical three-factor structure as designed), and those with the lowest loadings were eliminated. This included 8, 13, 20, and 23. Number 6 was the next lowest, but because it was the only question that covered political chauvinism, it was retained. Number 27 was the next lowest, but because it was one of the few questions that covered ethnocentrism/chauvinism and it was a two-part question (It upsets me when migrants or international visitors criticise my country. If they don't like it, they should leave.), which may have had caused confusion, the second sentence of the question was deleted and the question was retained. The two with the next lowest loadings, 15 and 17, were deleted, to produce a 19-item scale with a Cronbach's alpha of .89 with factor loadings for all questions exceeding 0.30. However, when the test was transferred to the online version, question 21 was inadvertently deleted, so the resulting scale consisted of only 18 questions.

Students were tested on the Barrows scale of Attitudes and Perceptions at the same time to establish construct validity via their correlation. The reliability of the 20 questions from the Barrows scale was lower than that of this scale (α=.76). However, this was not surprising given that it was an incomplete, and 24-year old instrument. However, it was still reliable enough for the purpose of establishing construct validity. Anastasi (1988, cited in Hett, 1994) suggests that a moderate correlation in the range of .40 to .70 between two scales is preferable for establishing construct validity, but that a correlation above .70 would indicate that the new instrument is unnecessary as it measures the same concept. The Pearson correlation coefficient for the two scales was .50 (p<.01, 2-tailed), indicating that the two scales measured similar but not identical constructs.

Cross-Cultural Skills

In order to establish content validity for this scale, definitions established for Cross-Cultural Skills were sent to the seven content area experts as previously described. Feedback from the six judges who responded by the deadline produced the final definitions in Table 5.

Table 5

Final Definitions of Cross-Cultural Skills

Skill	Definition
Cognitive and behavioural flexibility and openness	Ability to modify and adapt opinions based on new information and to understand issues from more than one perspective. Ability to adapt behaviour, and adjust to new people, places, situations, customs, and food. Ability to deal with ambiguity and cultural differences without feeling anxious, threatened, or hostile.
Cross-cultural communication skills	Ability to communicate successfully both on surface and deeper levels with people from other cultures who have different communication styles.
Cross-cultural relational skills	Ability to form and maintain effective interpersonal relationships in various settings (school, work, personal) for various purposes with people from other cultures.

Questions were written by the researcher for each area of the definitions and submitted to the same content area experts to establish item validity. Based on the responses from six of the judges, 17 questions were left for use in the pilot study. The UCBS version of the pilot test can be found in Appendix I.

Two hundred and fourteen domestic students from all three participating universities completed the pilot test. This included 38 students from GU, 77 students from UCBS, and 99 students from KSU. The students' year in school and location and test format was the same as described in the International Attitudes and Perceptions section.

Reliability for the 17-item scale using Cronbach's alpha was .85. Two questions were deleted in order to improve the scale's reliability: 1 and 6, leaving a 15-item scale with an alpha of .87. This scale was expected to correlate significantly with the Barrows (1981) scale of Attitudes and Perceptions as well, but not as strongly as the International Attitudes and Perceptions scale from this instrument. It was significantly correlated with a Pearson correlation coefficient of .30 ($p<.01$, 2-tailed). Factor analysis was performed using Principal Component Analysis (PCA) with a Varimax rotation[1]. It did not reveal a three-factor structure as designed, but, as with the previous scale, the questions loaded strongly on one factor, with factor loadings exceeding 0.30.

International Behaviours

To create this section of the instrument, a list of behaviours that should be evidenced by an internationally-minded person was created by the researcher. This list included donating to or volunteering for an international charity, attending an international event (e.g., art exhibit, concert, dance, or food festival), approaching someone from another country at a party, inviting an international student to your home, having friends from other countries, travelling to another country, reading a book for pleasure by a foreign author (in translation or original language), and prioritising international issues in voting for elected officials. The following four behaviours were drawn from the Hett (1994) scale of international behaviours: discussing international issues with friends, reading about other cultures, watching TV shows about other cultures, and reading news articles about international events. These behaviours were then condensed and rearranged to match with the conception of the International Attitudes and Perceptions section into three areas reflecting respect, interest, and concern, as shown in Table 6.

After feedback on content validity from six of seven experts, the definitions in Table 7 were finalised. Questions were written to match the concepts in the definitions and submitted to the same content area experts. Based on their responses, 19 questions were retained for pilot testing. The UCBS pilot test version can be found in Appendix J.

Two hundred and fourteen domestic students from all three participating universities completed the pilot test. This included 38 students from GU, 78 students from UCBS, and 98 students from KSU. The students' year in school, location and test format was the same as described in the International Attitudes and Perceptions section.

[1]Due to inexperience with factor analysis, a different method was inadvertently used from the previous one for this scale and the scale of International Behaviours.

Table 6

Preliminary Definitions of International Behaviours

Behaviour	Definition
Respect for other cultures and nations	Behaviours that indicate respect for other cultures and nations, such as learning another language (not as a requirement), objecting when someone voices a stereotype about foreigners, withholding judgment when someone from another culture behaves differently, or critiquing your own country's foreign policy.
Interest in other countries, cultures, and global affairs	Behaviours that indicate interest in foreign countries, cultures, people, and events, such as attending an international event, reading a foreign novel, paying attention to international news, travelling to another country, or initiating a conversation or friendship with a person from another country.
International political and humanitarian concern	Behaviours that reflect international humanitarian and political concern, for example, donating to or volunteering for an international charity, prioritising international issues in voting for elected officials, or writing letters to effect international political change.

Table 7

Final Definitions of International Behaviours

Behaviour	Definition
Respect for other cultures and nations	Behaviours that indicate respect for other cultures and nations, such as learning another language (not as a requirement), treating people as individuals rather than based on stereotypes, sharing knowledge of another culture with people from your own, or withholding judgment when someone from another culture behaves differently.
Interest in other countries, cultures, and global affairs	Behaviours that indicate interest in other countries, cultures, people, and events, such as attending an international event, reading foreign publications, consistently following international news, travelling to another country, or initiating a conversation or a friendship with a person from another country.
International political and humanitarian concern	Behaviours that reflect international humanitarian and political concern, for example, donating to or volunteering for an international charity, prioritising international issues in voting for elected officials, writing letters to effect international political change, or critiquing your own country's foreign policy.

As with the other scales, internal consistency reliability for this scale was quite high (α=.88). This reliability could not be improved by deleting any questions. However, as a shorter scale was required, and the three-factor structure proved uninterpretable, factor analysis (PCA with Varimax rotation) was used to examine a single factor solution. Items with the smallest factor loadings (11, 15, & 18) were deleted, leaving a 16-item scale with a Cronbach's alpha of .87 and all factor loadings exceeding 0.30. Again, this scale was significantly correlated with the Barrows (1981) scale of Attitudes and Perceptions with a Pearson's correlation coefficient of .36 (p<.01, 2-tailed).

Background Information

A questionnaire asking for relevant background information on the participants was created by the researcher with reference to previous instruments (Barrows, 1981; Carlson et al., 1990; Hett, 1994). Variables that were included were those that were identified as relevant in the literature, as well as those related to internationalisation. This included citizenship; age; sex; length of time at university; whether the student or their parents were born out of the country; age of arrival for participants born out of the country; parents' level of education; grade point average (GPA); course of study; whether the course of study was international; number of classes with international content; travel and study abroad experience (including level of immersion, purpose, and length of stay); whether students had visited a developing country and for what purpose; number of international friends and when they met them; number of international TAs and lecturers; preferred stations for TV news; international news viewing, listening, and reading habits; race/ethnic group, socio-economic status; political beliefs; religion; and frequency of attendance at religious services.

Materials and Test Administration

Content validity judging was conducted via e-mail. Pilot tests were conducted online and in person with students from all three participating universities. For the final version of the test, students were contacted via e-mail to participate in the study. They were directed to a password-protected web site in order to complete the survey. Students who did not respond were contacted with one follow-up e-mail.

Data Analysis

Multivariate analyses of variance (MANOVAs) were used to examine associations between background and internationalisation variables and scale scores. For each MANOVA, for the scales in which the Levene's test for homogeneity of variance was significant at the $p<.01$ level, nonparametric statistics (Kruskal-Wallis) were used to confirm the effects obtained via the MANOVAs.

Summary

The experimental design, research questions, development of the instrument, and pilot testing were described in this chapter. Details of test administration, participants, and materials, as well as procedures for the analysis of the data, were also discussed. In the next chapter, the results of the study are presented.

Results

Findings related to four of the five primary research questions guiding this study are presented in this chapter. The literature review and development of the survey instrument described in the method section provide a response to the first research question. The chapter is organised into five sections. In the first, information is provided on the state of internationalisation at each participating university. The second is an account of the researcher's treatment of missing data. The third contains background information about the survey respondents and a descriptive analysis of their responses. It also details how data were condensed into analysable groups for purposes of the statistical analyses. The fourth addresses psychometric properties of the dependent scales on the survey instrument. The relationship between the background and internationalisation characteristics of the participants, and the six dependent scales and their subscales representing areas of internationalisation, is outlined in the final section.

The State of Internationalisation at Participating Universities

Griffith University

Christopher Madden, Pro-Vice Chancellor (International) from Griffith University (GU) met with the researcher in May of 2006 and rated the university on the internationalisation criteria outlined in the ACE publication *Measuring Internationalization at Comprehensive Universities* (Green, 2005). For articulated commitment, organisational infrastructure, and international students and student programs, he gave GU a high rating. For institutional investment for faculty and external funding, he gave the university a medium-high rating, and for academic offerings, a medium rating. According to Mr. Madden, "Griffith values the social, education, financial, and cultural benefits that derive from the internationalisation of the university. It believes that a global university is the appropriate vision to educate the world's global citizens" (personal communication, May 10, 2006). During the 2006 academic year, GU had a population of 8,244 international students, which represented 23.5% of the total student body of 35,130 (Planning and Statistics Office, GU, 2006). In the same year, they sent 181 (primarily undergraduate) students abroad on semester or academic year exchange programs, and gave grants to 164 students for short-term overseas experiences including internships, short-term study abroad, and conferences (H. Piper, personal communication, April 2, 2007). Those students whose study abroad experiences were tracked by the international office for the 2006 academic year represented about 0.01% of the student body.

Kennesaw State University

Kennesaw State University (KSU) has been actively seeking institutional engagement in international and intercultural education for almost two decades (Whittlesey & Adebayo, n.d.). KSU was one of the universities selected to participate in ACE's *Global Learning for All* study (ACE, 2007). In their peer review site visit report from November, 2004, ACE wrote: "As the institution moves forward in developing and implementing its assessment plan, Kennesaw State University has the promise of serving as a national model for articulating, infusing, and assessing for global learning outcomes." (ACE, 2004, p. 7). KSU is rare in that they have articulated the international learning outcomes they desire to see in their graduating undergraduate students.

KSU's Global Learning Outcomes for Graduating Seniors

Global Perspectives (Knowledge) - Graduating students recognize and incorporate the diversity, commonalities, and interdependence of the world's people, nations, and/or environmental systems into their general knowledge, academic specializations and worldviews.

Intercultural Engagement (Skills) - Graduating students demonstrate effective and appropriate communication, interaction and teamwork with people of different nationalities and cultures, either locally or internationally.

Global Citizenship (Attitudes) - Graduating students demonstrate respect and support for the common good of the world community, including its diversity, attention to human rights, concern for the welfare of others, and sustainability of natural systems and species. (KSU, n.d.)

In August of 2005, Dan Paracka, Director of International Services & Programs at KSU, rated the university on ACE's internationalisation criteria. On articulated commitment, academic offerings, and organisational infrastructure, he gave the university a high rating. On external funding, institutional investment in faculty, and international students and student programs, he gave the university a medium-high rating. During the 2006-2007 academic year, there were 549 international students at KSU. This represented 2.77% of the total student body of 19,854. In the 2005-2006 academic year, 278 KSU undergraduate students studied abroad, which represented 1.66% of undergraduates (D. Paracka, personal communication, April 17, 2007). Of the 2005-2006 graduating class, 5.44% had studied abroad (D. Paracka, personal communication, April 19, 2007). As part of KSU's institutional accreditation in 2006-2007, the university selected *Global Learning* as their Quality Enhancement Plan topic for re-accreditation through the Southern Association of Colleges and Schools (D. Paracka,

personal communication, 2007). The plan, which will be implemented between 2007 and 2012, focuses on global learning for an engaged citizenship (Whittlesey & Adebayo, n.d.).

University College at Buffalo State

At the time that University College at Buffalo State (UCBS) agreed to participate in this study, Lee Ann Grace, Assistant Dean of International and Exchange Programs, put the university at the lower end of the medium range of ACE's internationalisation criteria (L.A. Grace, personal communication, August 3, 2005; Green, 2005). During the 2006-2007 academic year, there were 72 international students at UCBS. This represented 0.6% of the total student body of 11,226. In the 2005-2006 academic year, 83 UCBS undergraduate students studied abroad, which represented 0.9% of undergraduates. Of the 2005-2006 graduating class, 4.92% had studied abroad (L.A. Grace, personal communication, March 29, 2007). According to Dr. Grace, the university is seeking to increase participation in education abroad, increase the number of international students on campus, and infuse international themes into the curriculum (L.A. Grace, personal communication, October 23, 2005).

Missing Data

Two different situations caused missing data. The online software on which the students completed the questionnaire was designed to require answers to most questions. However, if a student pressed "back" on their internet browser while taking the test to change an answer, either two answers or no answers appeared in the data set. Students were contacted via e-mail to clarify their intended responses, but only about half of them replied. Values for those that did not reply were left blank in those fields. Because this type of malfunction was essentially random, it was not considered necessary to compare the students who had missing values on the background information portion of the instrument. The second cause for missing data was students who did not complete the instrument. If the students completed at least the first question in the set of dependent variables (if they had studied a foreign language) their data were retained. Students who completed only the background information portion were removed from the data set. For students who stopped partway through a dependent scale, the data for that scale were removed, with the exception of international knowledge. Those who completed at least half of that scale received average scores based on the 10 questions they did complete. Most who failed to complete the instrument dropped out after the Foreign Language Proficiency and International Knowledge scales (61 and 87 students, respectively) as they were first on the test. The

number of participants who dropped out after the remaining scales was much smaller (2 after Knowledge of a Specific Region or Country, 7 after International Attitudes and Perceptions and 18 after Cross-Cultural Skills). For the first two groups, scores on the measures preceding dropout for those who dropped out versus those who completed the following measure were compared using an ANOVA and a MANOVA. There were no significant differences found in their scores. The number of students who dropped out after the subsequent measures was too small for any meaningful comparisons.

Descriptive Analysis

This section contains a descriptive analysis of the data set. It is divided into Demographic Variables, Academic Performance and Course of Study, Political Beliefs and Religion, News Media, and Internationalisation Indicators.

Background Variables

A summary of background information about the participants is shown in Table 8. A total of 1302 students completed some or all of the survey, but due to flaws in the online survey software as previously described, there are missing data for almost all questions. Consequently, all frequencies do not add up to 1302, but percentages given reflect the percentage of valid answers and should therefore sum to 100%.

There is a higher number of participants from GU. This is due to two factors: first, GU is much larger than the two American universities, and second, first-year GU students had a higher return rate (6.4%) as compared to the other groups, which ranged from a low of 3.2% for final-year Kennesaw students to a high of 5.8% for UCBS first-year students. As shown in Table 8, females were much more likely to complete the survey than males. Participants ranged in age from 16 to 73, and the data were condensed into three age groups. There is a large number aged 23 or older. Options for identifying race/ethnic group were different for each country, based on categories used by the participating universities in their own records. Because there were not enough members in each category for purposes of valid statistical analysis and because many people selected more than one race, different racial groups were combined to create the categories in Table 8. For further analysis, race/ethnic group was combined for both countries. This resulted in the following composite categories: White: 1046 (80.5%), all or part Aboriginal, Torres Strait Islander, Black, or African-American: 74 (5.7%), other or multiracial (White + other): 180 (13.8%).

Students identified by the participating universities as first-year students made up 56.2% of the sample, and those identified as final-year students made up 43.8%. However, when asked how many years of university the students had attended, after

Table 8

Demographic Characteristics of Participants

Country (where survey taken)	Frequency	Percent
Australia	840	64.5%
U.S.	462	35.5%
University		
Griffith University	840	64.5%
Kennesaw State University	221	17.0%
University College at Buffalo State	241	18.5%
Age		
16-18 years	433	33.3%
19-22 years	423	32.5%
23 years or older	446	34.3%
Sex		
Male	380	29.2%
Female	922	70.8%
Total years at university		
1 or less	600	46.1%
>1 and ≤ 2	88	6.8%
>2 and ≤ 3	156	12.0%
>3 and ≤ 4	209	16.1%
>4 and ≤ 5	99	7.6%
>5	150	11.5%
Socio-economic status		
Lowest 25%	74	5.7%
Between 25 and 50%	492	37.9%
Between 50 and 75%	669	51.5%
Highest 25%	64	4.9%
Race/ethnic group Australia		
White	680	81.0%
Aboriginal or Torres Strait Islander (or part)[a]	25	3.0%
Other or multiracial	135	16.1%
Race/ethnic group U.S.		
White, European American, non-Hispanic	366	79.6%
Black, African-American, non-Hispanic (or part) [a]	49	10.7%
Other or multiracial	45	9.8%

[a]Students were able to select all races that applied. If they selected Aboriginal or Torres Strait Islander, or Black, African-American, non-Hispanic plus another race/ethnic group, they were put in one of the former two categories.

combining part- and full-time years (2 part-time years were considered equivalent to 1 full-time year), many participants fell between the desired demographic of students who had just started their studies or who were about to complete them, which can be seen in the "total years of university" section of Table 8. After cross-tabulating first- and final-year students and the number of years of university completed, it became obvious that either the calculations made in combining part-time and full-time studies obscured the fact that some part-time students may have taken only one course at a time; some

students had been misidentified by the universities or had completed previous studies prior to the degree they were currently completing; or the length of certain degree programs was quite short. For example, 65 first-year students had already completed two or more years of university, and 21 final-year students had completed two years or fewer of university. Therefore, number of years of study completed may prove to be a more valuable variable than first or final-year status. For further analysis, years of study was condensed to create four groups of students based on their years of university studies completed: 1 year or less (46.1%), greater than 1 and less than or equal to 3 years (18.7%), greater than 3 and less than or equal to 4 years (16.1%), and greater than four years (19.1%).

Most students in this study identified themselves as belonging to the middle class, with 89.4% placing themselves within the 25-50% or 50-75% income brackets. In combination, the two lower income brackets represented 43.6% of students, and the upper two, 56.4%. The highest education level of the students' parents was wide-ranging, with 43.9% of mothers and 43.2% of fathers having a high school qualification or less, 25.0% of mothers and 22.3% of fathers having a TAFE, vocational, Associate's degree, or some university studies (but no degree), and 31.1% of mothers and 34.5% of fathers having an undergraduate degree or some postgraduate or research studies or more.

Most students were citizens of the country where surveyed (95.1%). The remainder (4.9%) were permanent residents. Because of the uneven split between citizens and permanent residents, these groups were not used for subsequent analyses (Rummel, 1970, cited in Tabachnick & Fidell, 1996). A relatively large proportion of students had international experience by virtue of being born in another country or having parents born in another country. While 12.2% of the students were born outside of the country, 26.1% had a father born outside the country, and 26.1% had a mother born outside the country. Of those born outside the country, 24.3% came to the country where they took the survey when between 0.5 and 4 years old, 22.2% between 5 and 9 years old, 25.3% between 10 and 15 years old, and 25.3% at age 16 or older. In addition, 17.4% of students surveyed spoke or understood a second language at home. Cross tab analysis was done between race and these factors. The majority of those from the other race category spoke or understood a second language at home (64.4%), had parents from another country (77.2% had a mother born abroad, 71.1% had a father born abroad), and a large proportion were born out of the country in which they took the test (37.2%).

Academic Performance and Course of Study

GPA proved to be difficult to measure because of the variety of student backgrounds and grading systems, particularly in Australia. In the U.S., all students replied with a high school or university GPA on a 4.0 scale. In Australia, students replied with high school GPAs in multiple formats, university GPAs, and Overall Position (OP), Tertiary Entrance (TER), and University Admissions Index (UAI) scores, which are rankings given by different states for the purposes of comparing students for university admission. They rank students' performance as compared to that of their peers. In addition, many first-year GU students replied with unidentified numbers that could have belonged to more than one of these categories and thus were unusable. Consequently, GPAs for 124 students were dropped from the data set. All scores were converted to a 1.0 point scale. U.S. grades on a 4-point system were converted using 1=0.65, 2=0.75, 3=0.85, 4=0.95 and even intervals calculated in between. Australian high school GPAs were listed in a variety of formats. Letter grades were converted as A=0.95, A-=0.92, B+=0.88, B=0.85, B-=0.82, C+=0.78, C=0.75, C-=0.72 and intervals in between. Achievement codes were converted as follows: Very High Achievement (VHA)=0.95, High Achievement+ (HA+)=0.88, High Achievement (HA)=0.85, Sound Achievement (SA)=0.75. All TER and UAI scores were converted to OP Scores (the Queensland system) using the conversion scale used by Bond University (Bond University, n.d.) for the purposes of scholarship qualification. OP Scores, which range from 1 (best) to 25 (worst) were then converted to scores out of 1, equating 1 with 1.0 and 25 with 0.60 and calculating even intervals in between. Australian university grades, which are on a 7-point system, were compared to the U.S. grading system using a chart produced by AustraLearn (AustraLearn, n.d.) which led to the assignment of the following values: 7=1.0, 6=0.95, 5=0.85, 4=0.75, 3=0.65, 2=0.55, with even intervals created in between. The source of the GPA was recorded for each student, resulting in four different categories (U.S., Australian university, OP/TER/UAI scores, and Australian high school). Because the source of the GPAs interacted significantly with GPA, the file was split by GPA source and *z* scores (a calculation of the standard deviation from the group mean) were calculated and used to negate any further effects based on GPA source. Students were then split into rough quartiles based on the *z* scores of their GPA.

Course of study or major was also problematic because many students had two or more majors. Therefore, each major had to be remade into a dichotomous variable. Major participation was as follows: biological or physical sciences (106) 8.1%;

business, economics, or hospitality 259 (19.9%); communication, journalism, or media studies 84 (6.5%); creative or visual arts 95 (7.3%); education 229 (17.6%); engineering or aviation 43 (3.3%); environmental sciences 42 (3.2%); fashion and textiles, human services, other, or undecided 33 (2.5%); foreign languages, literatures, or linguistics 43 (3.3%); health, human, or medical sciences 185 (14.2%); humanities 53 (4.1%); information technology (IT) 87 (6.7%); international studies 46 (3.5%); law or criminology 93 (7.1%); mathematical sciences 28 (2.2%); and social sciences 168 (12.9%). Where possible, majors with very few students were collapsed into groups representing at least 10% of the participants by bringing together similar majors. Environmental sciences were combined with biological or physical sciences; creative or visual arts was combined with fashion, textiles, human services, or other (this category was not used for analysis with MANOVA as it did not reach 10% of the students); engineering or aviation was combined with IT and mathematical sciences; humanities was combined with foreign languages and communication, journalism, or media studies; and social sciences were combined with law or criminology and international studies.

Political Beliefs and Religion

Students' responses on questions relating to their political and religious beliefs and attendance at religious services are shown in Table 9. There are differences for U.S. and Australian students in the distributions. Australians were much less likely to identify themselves politically as being in the centre (16.6%) or right of centre or far-right (13.6%) than American students (24.2% and 23.2% respectively), but were much more likely to identify themselves as not interested in or knowledgeable about politics (27.2% Australia vs. 17.3% U.S.). Comparison of UCBS, a university in the north of the U.S. to KSU, a university in the south, also revealed political differences. While 34.6% of UCBS students identified themselves as far-left or left of centre, and 16.3% as far-right or right of centre, 25.5% of KSU students leaned left politically and 30.0% leaned right.

American students were also generally much more religious, with 33.3% identifying themselves as Catholic or Orthodox and 39.8% identifying themselves as Protestant or Evangelical, versus 25.1% and 27.7% respectively of Australians, while 39.4% of Australians described themselves as non-religious, secular, atheist, or agnostic, almost double the 19.7% of Americans who selected that option. Similarly, while 69.3% of Australians said that they rarely or never attended religious services and only 12.8% attended at least once a month, only 40.3% of Americans attended rarely or never and almost three times as many (36.0%) attended religious services at least once a

Table 9

Political and Religious Beliefs and Attendance at Religious Services

Political beliefs	Frequency	Percent
Far-left	59	4.5%
Left of centre	306	23.5%
Centre	251	19.3%
Right of centre	197	15.1%
Far-right	24	1.8%
Other	72	5.5%
Not interested in or knowledgeable about politics	392	30.1%
Religion		
Christian: Catholic or Orthodox	364	28.0%
Christian: mainline Protestant	347	26.7%
Christian: Evangelical	69	5.3%
Latter Day Saints	11	0.8%
Jewish	9	0.7%
Buddhist	17	1.3%
Muslim	21	1.6%
Hindu	8	0.6%
Non-religious/secular/atheist/agnostic	421	32.4%
Other	33	2.5%
Attendance at religious services		
Rarely or never	768	59.0%
A few times a year	260	20.0%
Once a month	58	4.5%
Every two weeks	46	3.5%
Once a week or more	170	13.1%

month. Again, because of low numbers, for purposes of further analysis, far-left and left of centre and far-right and right of centre were combined into one category under political beliefs. For the same reason, Protestant and Evangelical Christians were combined into one category and all non-Christian religions and other were grouped into one category.

News Media

Students' exposure to the news media was investigated with questions about (a) how often they watched international news on television or listened to it on the radio; (b) how often they read international news in a newspaper, magazine, or online; and (c) which one or two television stations they watched most frequently for international news. Results of these questions are summarised in Table 10. For further analysis, the first two groups in the category, how often international news was watched or listened to, were combined into one group, as were the last two categories under how often international news was read.

Internationalisation Indicators

Internationalisation of the curriculum. Items on the survey pertaining to the internationalisation of the curriculum were (a) international major, (b) courses taken

Table 10

Exposure to the News Media

How often international news was watched or listened to	Frequency	Percent
Never	69	5.3%
Rarely	265	20.4%
Occasionally	495	38.0%
Often	293	22.5%
Very often	180	13.8%
How often international news was read		
Never	208	16.0%
Rarely	401	30.8%
Occasionally	406	31.2%
Often	193	14.8%
Very often	94	7.2%
TV stations watched for international news – Australia		
Public stations only	272	33.4%
Public and commercial or other stations	205	25.2%
Commercial stations only or commercial and other stations	302	37.1%
None	35	4.3%
TV stations watched for international news – U.S.		
Public stations or public plus other, network, or cable stations	96	21.3%
Network stations or network and other stations	73	16.2%
Cable stations (CNN, MSNBC) or cable and network or other stations	123	27.3%
Fox News or Fox News and network, cable or other stations	130	28.8%
None	29	6.4%

with primarily international content, and (c) courses taken with some international content. Results are listed in Table 11. For purposes of further analysis, categories from courses with primarily international content were condensed into three groups (0, 1-2, and 3 or more) and categories from courses with some international content were condensed into three groups (0, 1-3, and 4 or more).

Table 11

Indicators of Internationalisation of the Curriculum

International major	Frequency	Percent
Yes	351	27.0%
No	951	73.0%
Courses taken with primarily international content		
0	729	56.0%
1-2	350	26.9%
3-4	131	10.1%
5-6	46	3.5%
7 or more	46	3.5%
Courses taken with some international content		
0	794	61.0%
1-3	392	30.1%
4-6	63	4.8%
7-9	16	1.2%
10 or more	36	2.8%

Further analysis by university showed that the percentage of students who said that their major was considered an international major was similar (GU: 26.8%, UCBS: 28.2%, KSU: 26.2%). However, there were differences in percentages of courses taken with a primary focus on international topics reported by university. Of GU students, 64.4% reported having taken no courses with primarily international content, versus only 38.2% of UCBS students and 43.4% of KSU students. Similarly, 69.5% of GU students reported having taken no courses with some international content, versus 45.6% of UCBS students and 45.5% of KSU students.

Cross tab analysis showed that 349 (61.6%) of the 567 students who put zero for both questions on international course content had attended only one year or less of university. However, 117 of those students (9.0% of the 1302 participants) had already attended 3 or more years of university without taking a single course with any type of international content. Because this speaks to the question of how internationalised the curriculum is within various departments and universities, further analysis was done to locate the majors and universities of students with over three years of university, and no international course content. The percentages are shown in Table 12 for students with three or more years of university in each major who reported no courses with any international content. The breakdown of students by university with over three years of university attendance who reported no courses with international content is provided in Table 13.

Table 12

Students with Three or More Years of University and No Courses with International Content by Major

Major	Students in major with >3 years of university and no international courses	Students with >3 years of university in major	Percentage in major with >3 years + no international courses
Health, human, or medical sciences	23	51	45.1%
Engineering, aviation, IT, or mathematics	21	56	37.5%
Biological or physical sciences	21	57	36.8%
Education	34	112	30.4%
Creative or visual arts, fashion, textiles, human services, or other	7	32	21.9%
Social sciences, law, criminology, or international studies	16	104	15.4%
Humanities, communication, journalism, or foreign languages	9	61	14.8%
Business, economics, or hospitality	7	77	9.1%

Study abroad. Items on the survey pertaining to study abroad were (a) participation in study abroad (yes or no), (b) level of schooling during study abroad, (c)

Table 13

Students with Three or More Years of University and No Courses with International Content by University

University	Students with no international course content	Students with >3 years university	Percentage of students with >3 years + no intl course content
Griffith University	77	192	40.1%
Kennesaw State University	19	131	14.5%
University College at Buffalo State	21	135	15.6%

level of immersion during study abroad, (d) number of study abroad experiences, and (e) duration of study abroad. Data are shown in Table 14. The second and third categories from level of immersion were combined for further analyses due to small sample sizes. Further analysis by university showed that a larger percentage of GU and KSU students had studied abroad (20.5% and 21.8%, respectively) than UCBS students (15.3%). However, at GU, only a small percentage (4.1%) had studied abroad during university, versus 9.3% for UCBS and 11.4% for KSU. In contrast, the study abroad experiences of GU students tended to be at a higher level of immersion (55.6% studied with host country natives, versus only 25.0% for the other two universities) and of greater duration (56.1% for more than one academic year and 25.7% more than a semester and less than an academic year) versus UCBS (30.6% and 5.6%, respectively) and KSU (27.1% and 10.4%, respectively). However, these results should be treated with caution, as 71.9% of the GU students who studied abroad for more than a year were born out of the country, versus only 36.4% of UCBS students and 46.2% of KSU students, so the majority of these longer and more immersed experiences took place before moving to Australia and attending university. In fact, examination of students' experiences with study abroad over the course of their lives indicates that only 9 of the 171 (5.3%) GU students who studied abroad during university had not previously studied abroad, versus 22 of the 48 (45.8%) KSU students and 17 of the 36 (47.2%) UCBS students. Overall, 9.1% of final-year students from the sample who had never studied abroad previously participated in study abroad during university. For purposes of future analyses due to small numbers in some groups, duration of longest study abroad experience was collapsed into four categories: 4 weeks or fewer, greater than 4 weeks and less than or equal to 1 semester, greater than 1 semester and less than or equal to 1 academic year, and greater than 1 academic year. Similarly, number of study abroad experiences was also collapsed into three categories: 1, 2, and 3 or more.

Internationalisation indicators related to intergroup contact theory. Internationalisation indicators which would speak to the validity of intergroup contact

Table 14

Descriptive Statistics on Study Abroad

Participated in study abroad	Frequency	Percent
Yes	255	19.8%
No	1036	80.2%
Studied abroad during elementary school		
Yes	116	45.5%
No	139	54.5%
Studied abroad during middle school		
Yes	68	26.7%
No	187	73.3%
Studied abroad during high school		
Yes	114	44.7%
No	141	55.3%
Studied abroad for technical, vocational, or language school		
Yes	34	13.3%
No	221	86.7%
Studied abroad during university		
Yes	174	68.2%
No	81	31.8%
Highest level of immersion during study abroad		
Studied and lived with people from home country	42	16.5%
Studied with people from home country but lived with people from host country	25	9.8%
Studied with international students and lived with international students or people from home country	31	12.2%
Studied with international students and lived with people from host country	41	16.1%
Studied with people from host country	116	45.5%
Duration of longest study abroad experience		
4 weeks or fewer	34	13.3%
More than 4 weeks and less than or equal to 8 weeks	23	9.0%
More than 8 weeks and less than or equal to 1 semester	27	10.6%
More than 1 semester and less than or equal to 1 academic year	51	20.0%
More than 1 academic year	120	47.1%
Number of study abroad experiences		
1	171	67.1%
2	34	13.3%
3	22	8.6%
4	14	5.5%
5 or more	14	5.5%

Note. All statistics from "Studied Abroad in Elementary School" on include only those students who studied abroad.

theory are (a) friendships with people from other countries or foreign cultures, (b) sites where those friends were made, (c) dating someone from another country, (d) participation in group projects with international students, and (e) international lecturers and TAs. These data are summarised in Table 15.

In the area of international friends, GU students had a higher level of internationalisation, with only 8.8% reporting no international friends or only acquaintances, versus 17.6% of KSU students and 27.4% of UCBS students. Similarly,

Table 15

Internationalisation Indicators Related to Intergroup Contact Theory

Number of international friends	Frequency	Percent
0	20	1.5%
Some acquaintances but no friends	159	12.2%
1-2 friends	231	17.8%
3-4 friends	234	18.0%
5 or more friends	655	50.4%
Sites where international friends were made		
At university	114	8.8%
Outside of university	475	36.5%
Both at university and outside of university	683	52.5%
Have no international friends	28	2.2%
Dated someone from another country or foreign culture		
Yes	441	33.9%
No	861	66.1%
Participated in group projects with international students		
Yes	899	69.0%
No	403	31.0%
Number of international lecturers or TAs		
0	213	16.4%
1	275	21.2%
2-3	455	35.0%
4-5	185	14.2%
6 or more	171	13.2%

74.2% of GU students reported having 3 or more international friends versus only 65.2% of KSU students and 51.5% of UCBS students. Majorities of students from all universities made international friends either while at university or both at university and outside it (GU: 59.2%, KSU: 71.0%, UCBS: 59.8%). However, almost double the percentage of students from the American universities reported making their international friends only at university (GU: 6.0%, KSU: 14.0%, UCBS: 13.7%), which is most likely indicative of a greater level of diversity at Australian primary and secondary schools, or at least the ones sending students to those universities. More Australian students had dated someone from another country (37.7%) versus 31.7% of KSU students and 22.4% of UCBS students. In the area of group projects with international students at university, KSU showed the highest percentage, with 77.8% of students answering positively, versus 71.3% at GU and 53.1% at UCBS. Nevertheless, considering that 46.1% of the students taking the survey had only completed one year or less of university, it is impressive that such a large number had already mixed with international students at the level of group projects. Comparing results for first- and final-year students, there was a 24.1% increase in the number who had been involved in a group project with an international student over the course of their studies. Finally,

UCBS evidenced a lower level of internationalisation of its teaching staff, with 23.2% of students having had no courses with an international lecturer or TA, versus only 14.7% for GU and 15.4% for KSU. In addition, only 8.3% of UCBS students reported having had 6 or more international lecturers or TAs, versus 14.0% for GU and 15.4% for KSU.

Other international variables. The four remaining variables indicating the level and nature of students' international experiences that do not fit into any of the previous categories are (a) number of international events attended in the previous year, (b) travel abroad for purposes other than study abroad (including living abroad prior to moving to the country where surveyed), (c) travel to a developing country, and (d) purpose of travel to a developing country. On the question of attendance at international events in the past year, there were 696 students (53.5%) who had attended none, 230 (17.7%) who had attended one, 256 (19.7%) who had attended two to three, and 120 (9.2%) who had attended four or more.

Travel abroad experience of the survey respondents is summarised in Table 16. For the question of the purpose of travel abroad, it was necessary to assign participants to the category believed to represent their highest level of cultural immersion, as there were various combinations of experiences for every participant. For purposes of further analysis, categories were further condensed to combine military with tourism, and cultural exchange with volunteer, internship, or paid work. A high percentage of students had already travelled out of the country and percentages were similar across universities (GU: 63.4%, UCBS: 64.2%, KSU, 72.1%). Also, 60.1% of students with one year or less of university had travelled abroad already, indicating that most families with university-bound students are now taking their children on trips abroad even before they start university. For further analyses, the last two groups in number of trips abroad were condensed into one group.

To gauge whether travel to a developing country had a different effect on students than travel to a developed country, students were also asked whether they had travelled to or lived in a developing country and the purpose of that travel. Unfortunately, the category of "study" was left off the question regarding purpose of travel to a developing country for the first group of respondents (GU final-year students) so there are some incomplete data for this question. These data are summarised in Table 17. For purposes of further analyses, categories that had too few respondents were combined with categories deemed to have an equivalent level of cultural immersion: cultural exchange, work, and study; and tourism and military.

Table 16

Travel Abroad Experience of Participants

Travel abroad experience	Frequency	Percent
Yes	843	65.0%
No	454	35.0%
Number of trips abroad		
0	454	35.0%
1	302	23.3%
2	199	15.3%
3	117	9.0%
4	65	5.0%
5 or more	160	12.3%
Travel abroad ages 0-4		
Yes	184	21.8%
No	659	78.2%
Travel abroad ages 5-9		
Yes	216	25.6%
No	627	74.4%
Travel abroad ages 10-13		
Yes	303	35.9%
No	540	64.1%
Travel abroad ages 14-17		
Yes	423	50.2%
No	420	49.8%
Travel abroad ages 18 and older		
Yes	430	51.0%
No	413	49.0%
Purpose of travel abroad		
Lived abroad with own family (or in combination with tourism or military)	146	17.3%
Cultural exchange (or in combination with tourism, lived with own family, or military)	83	9.8%
Tourism, holidays, business trip, or conference	498	59.1%
Military (or in combination with tourism)	27	3.2%
Volunteer, internship, or paid work (or in combination with any of the other categories)	89	10.6%
Duration of travel abroad		
3 weeks or fewer	366	43.4%
> 3 and < 10 weeks	206	24.4%
>10 weeks and <1 year	99	11.7%
>1 and <3 years	80	9.5%
>3 years	92	10.9%

Note. All statistics from "Travel Abroad Ages 0-4" on include only those students who had travelled abroad.

Table 17

Travel to a Developing Country

Travel to a developing country	Frequency	Percent
Yes	343	26.4%
No	956	73.6%
Lived with own family in a developing country		
Yes	88	25.7%
No	255	74.3%
Cultural exchange in a developing country		
Yes	20	5.8%
No	323	94.2%
Volunteer, internship, or paid work in a developing country		
Yes	40	11.7%
No	303	88.3%
Studied in a developing country		
Yes	20	7.8%
No	235	92.2%
Tourism, holidays, business trip, or conference in a developing country		
Yes	254	74.1%
No	89	25.9%
Military service in a developing country		
Yes	4	1.2%
No	339	98.8%

Note. All statistics from "Lived with Own Family in a Developing Country" on include only those students who had travelled to a developing country.

Psychometric Evaluation of the Instrument

This section describes the process of preparing the data set, and evaluating and describing the dependent scales in preparation for analysis with MANOVAs. This includes the removal of univariate and multivariate outliers, factor analysis of the dependent scales, examination of the correlation between the dependent scales, and individual scale statistics.

Removal of Univariate Outliers

Individual questions from each dependent scale were examined to find outliers. Item number 15 (I would support my brother or sister if he or she married someone from another country or culture.) from the scale of International Attitudes and Perceptions (IA&P) was deleted as 91.5% of the respondents agreed or strongly agreed with this item. Item number 2 (Even when I don't agree with someone else, I treat them with respect.) from the scale of Cross-Cultural Skills (CC Skills) was deleted as 90.3% of the respondents agreed or strongly agreed with it.

Factor Analysis

Explanatory factor analysis was performed on all the scales in the manner recommended by Costello and Osborne (2005). Based on examination of a histogram with a normal curve superimposed, scales determined to have a close to normal distribution [International Knowledge, IA&P, CC Skills, and International Behaviours-(IB)] were analysed with a Maximum Likelihood extraction. Those with a non-normal distribution (Foreign Language Proficiency and Knowledge of a Specific Region or Country) were analysed with Principal Axis Factoring. For all scales, an oblique rotation (Direct Oblimin) was used, with the expectation that the factors in these scales were correlated. For all factor analyses, eigenvalues over 1 were retained, then scree plots were examined to determine the appropriate number of factors. Factor analysis was then repeated with the number of factors suggested by the scree plot and the items were examined for logical coherence to arrive at a final number of factors (Costello & Osborne, 2005). Factor loadings over 0.30 were retained, given the large sample size.

Foreign Language Proficiency. Factor analysis with Principal Axis Factoring and a Direct Oblimin rotation was performed. This revealed a solid single factor structure.

Knowledge of a Specific Region or Country. Factor analysis using Principal Axis Factoring with a Direct Oblimin rotation was performed. This revealed a solid single factor structure.

International Knowledge. Factor analysis using Maximum Likelihood with a Direct Oblimin rotation was attempted. The scree plot suggested either a one or a three factor solution. The three factor solution was not satisfactory in that 11 of the 20 questions did not load sufficiently onto any factor and the deletion of these questions would have resulted in a much less reliable scale. In addition, in examining the questions for each suggested factor, there was no logical connection amongst them, so it was decided to leave the scale with the original 20 items.

International Attitudes and Perceptions. Factor analysis using Maximum Likelihood with a Direct Oblimin rotation resulted in three factors with eigenvalues over 1. An examination of the scree plot confirmed a three-factor solution. One question, number 14 (Our country shouldn't have to follow the mandates of the United Nations – we know what's best for us.) did not load onto any of the factors and was removed from the scale. Question 18 (I like the variety of people, races, languages and cultures – it enriches our world.) loaded onto two factors, so it was eliminated. Question 11 loaded onto two factors, as well, but the factor for which it had a higher loading

contained only two items, so it was retained and factor analysis was repeated without items 14 and 18. This resulted in a clear structure with no overlap, although the third factor contained only two items. It was decided to retain this factor so as not to lose those two questions and their data, which were believed to contribute in a unique way to the measure. Cronbach's alpha for Factor 1 was .80; for Factor 2 was .71 and for Factor 3 was .54, which, while not as high as desired, was considered acceptable for a 2-item factor. The breakdown of the factor analysis of this scale is shown in Table 18.

Table 18

Factor Analysis with Maximum Likelihood and Direct Oblimin Rotation – IA&P

Factor	Cronbach's alpha	Factor loading	Original category[a]	Question
1	.80	.64	C	9. I am concerned about how my consumption of natural resources affects the world.
		.60	C	10. I think we'll only solve world problems by cooperating more closely with other countries.
		.60	C	12. I believe we must go to greater lengths to avoid solving conflicts by warfare.
		.56	C	16. I think our country should contribute more to help people in poorer countries.
		.49	I	1. I'd like to better understand the causes of the various conflicts around the world.
		.48	R	13. We could learn a lot from the way they do things in other countries.
		.48	C	2. I think about how my behaviour might affect people in other countries.
		.43	R	7. I tend to think of myself as a citizen of the world rather than of just my country.
		.42	I	6. High School students should be required to learn as much about the history and politics of other countries as they do about their own country.
2	.71	-.77	R	3. I prefer not to talk to foreigners because it is difficult to understand their English.[b]
		-.66	I	4. It's interesting to talk to people from other countries and cultures and learn more about their customs and values.
		-.59	R	5. I prefer to work with students from my own country on group projects – it makes things easier.[b]
		-.37	I	8. I don't think knowing about international or intercultural issues will help in my career.[b]
3	.54	.54	R	17. It upsets me when migrants or international visitors criticise my country.[b]
		.45	I	11. I'm not really interested in why foreigners in my country behave differently from us – they've moved here and they need to adapt to the way we do things.[b]

[a]R: Respect for other cultures and nations; I: Interest in other countries, cultures, and global affairs; C: International political and humanitarian concern. [b]Reverse scored items.

as well as the original categories from which the questions were drawn and Cronbach's alpha for each subscale.

The nine items from Factor 1 dealt with topics that were environmental, humanitarian, or political in nature, and involved attitudes towards other countries as a whole as opposed to personal interactions with individuals from those countries. This factor was called *Global Interdependence and Cooperation*, which will be defined as concern and respect for, interest in, and a sense of kinship with other countries, their issues and peoples, and a desire to personally and nationally behave towards them in a way that is cooperative and beneficial. The second factor was a negative factor, indicating a grouping of those who responded negatively to these questions. It contained four questions that dealt primarily with attitudes towards interacting personally with people from other countries and cultures or learning about those countries and cultures. This factor was called *Cultural Pluralism* (similar to the category defined by Hett, 1994). It will be defined as the desire to interact with, work with, and learn from people from other countries and cultures, and a belief in the importance of international and intercultural issues. The third and final factor contained only two items, which related to the failure to be interested in or sympathetic to someone who was critical of one's country or failed to adapt well to one's culture. This factor was called *Cultural and National Self-Awareness,* as someone with those qualities would be more aware of the concept of culture and more open to the perspective of someone from another country or culture. It will be defined as empathy for migrants and international visitors and the ability to accept criticism of one's own country.

Cross-Cultural Skills. Factor analysis using Maximum Likelihood with a Direct Oblimin rotation was performed on this scale, resulting in a clear three-factor solution (three eigenvalues over 1 and scree plot to confirm). One question, number 14 (It is frightening for me to travel to new places, especially out of the country.) did not load on any of the factors and was removed from the scale. Factor analysis was repeated and the structure remained stable. The breakdown of the factor analysis, the original categories from which the questions were drawn, and Cronbach's alpha for each subscale are shown in Table 19.

The six items from Factor 1 related to communicating and interacting with people from other countries and cultures on a superficial level, seeing the perspective of a person from another culture, and studying and working with people from other cultures. It was called *Intercultural Communication and Teamwork*, and will be defined

Table 19

Factor Analysis with Maximum Likelihood and Direct Oblimin Rotation – CC Skills

Factor	Cronbach's alpha	Factor loading	Original category[a]	Question
1	.76	.80	C	4. Sometimes international students have different communication styles, but we still manage to communicate well.
		.71	C	6. Although there may be some miscommunications when I talk to people from other countries, I almost always manage to get my message across.
		.53	B	5. I find it easy to see issues from the perspective of a person from another culture.
		.46	R	1. I have worked successfully with international students on group projects.
		.44	B	3. I become anxious when I'm the only local student in a group of international students.[b]
		.40	C	13. I feel comfortable making small talk with people from other countries.
2	.82	-.85	R	9. Although I've spoken with people from other countries, I've never actually been able to form a friendship with someone from outside my country.[b]
		-.78	C	15. I have had real friendships with people from other countries or cultures with very different values or customs.
		-.56	C	8. I've had an in-depth discussion with someone from another country whose culture is very different from mine.
		-.49	R	7. It would be difficult for me to become close friends with someone who wasn't from my culture or one with similar values and customs.[b]
3	.65	.74	B	12. I have changed my behaviour when interacting with people from another culture in order to fit in or not give offence.
		.58	B	10. I'm willing to change my behaviour if it offends someone from another culture, especially if I'm in their country.
		.43	C	11. I know how to adjust my language to help someone with limited English skills understand better.

[a]B: Cognitive and behavioural flexibility and openness; C: Cross-cultural communication skills; R: Cross-cultural relational skills. [b]Reverse scored items.

as an ability to communicate, work, and feel at ease with people from other countries, and to see from the perspective of someone from another culture. Factor 2 was a negative factor with four items related to forming real friendships with people from other countries, so it was named Intercultural Friendship. It will be defined as the ability to form genuine friendships and have in-depth conversations with people from culturally different backgrounds. The three items from Factor 3 involved adjusting one's behaviour in order to better relate to people from other countries and cultures, so it was called *Behavioural Flexibility.* It will be defined as the ability to change one's behaviour in order to fit in, avoid giving offence, or help those with limited language skills.

International Behaviours. Factor analysis using Maximum Likelihood with a Direct Oblimin rotation was performed, resulting in four eigenvalues over 1. The scree plot suggested a three-factor solution, but the four-factor solution fitted the data better and retained more items. Question 11 (I don't like to read things that are critical of my country.) did not load onto any of the factors and was removed from the scale. Factor analysis was repeated and the four-factor structure remained stable. The factors are shown in Table 20 with their loadings, the original category from which they were drawn and the Cronbach's alpha for each subscale.

Table 20

Factor Analysis with Maximum Likelihood and Direct Oblimin Rotation – IB

Factor	Cronbach's alpha	Factor loading	Original category[a]	Question
1	.58	1.0	I	16. I have made it a priority to enrol in classes that cover international issues.
		.33	R	12. I've chosen to study a foreign language.
2	.76	.68	I	4. I don't usually try to get to know people from other countries.[b]
		.60	R	9. I try to ask people from other cultures about their values and customs.
		.56	I	8. I like to read articles or books about other countries or cultures.
		.52	R	2. When someone has stereotyped foreigners, I have spoken up.
		.50	I	7. I don't usually watch TV shows or see movies about other countries and their cultures.[b]
		.37	I	14. I have invited an international student to my home.
		.36	R	5. I've seen people from other cultures do things we wouldn't do here, but I don't think worse of them for that.
3	.62	.69	C	6. I have volunteered for a charity that works internationally.
		.60	C	3. I donate to charities that work internationally.
4	.68	-.75	C	13. I try (or will try) to become informed about the positions of politicians on international issues so I can be an informed voter.
		-.63	C	10. I put a high priority (or would put a high priority) on international issues when voting for elected officials.
		-.37	C	15. I have never criticised my own country's foreign policy.[b]
		-.36	I	1. I consistently follow international news.

[a]R: Respect for other cultures and nations; I: Interest in other countries, cultures and global affairs; C: International political and humanitarian concern. [b]Reverse scored items.

The two items in Factor 1 related to academic issues. It was called *Academic Involvement*, and will be defined as prioritising international issues and foreign

languages in the selection of academic subjects. The seven items in Factor 2 related to interpersonal and intercultural relationships, and interest in other countries and cultures. It was called Intercultural Curiosity and Involvement and will be defined as behaviours that reflect curiosity about, interest in, and openness to other countries and cultures and a desire to meet and interact with people from other countries. The two items in Factor 3 related to charitable giving and volunteer work, so it was named Charitable Involvement. It will be defined as volunteering for or donating to international charities. The four items in Factor 4, which was a negative factor, related to politics and keeping up with current events, so it was called Political Involvement. It will be defined as behaviours which demonstrate interest in and concern about international political issues and the ability to reflect critically on the foreign policy of one's own country.

Removal of Multivariate Outliers

To locate multivariate outliers, iterative regressions were performed with each dependent scale score treated as a dependent variable (DV) and the others as independent variables (IVs). Casewise diagnostics were used to eliminate respondents for subsequent analyses whose scores were identified as problematic on more than one scale. Five respondents were removed and the process was repeated. One more respondent was identified and removed from subsequent analyses, resulting in a total sample of 1296.

Correlation Between Dependent Scales

Pearson correlation coefficients were calculated to examine the relationship between the six dependent scales on the instrument. All scales were significantly correlated except International Knowledge and Foreign Language Proficiency (see Table 21). As expected, highest correlations were found amongst the affective measures (IA&P, CC Skills, and IB). The correlation between IB and IA&P (r=.72) slightly exceeded the correlation of .70 which would indicate that the scales are redundant (Tabachnick & Fidell, 1996). To look more closely at the factors that were highly correlated, Pearson correlation coefficients were calculated for the subscales of the three affective scales (see Table 21). None of the correlations exceeded the .70 level. Generally, the correlations were moderate, confirming the multidimensionality of the scales.

Table 21

Interdimensional Correlation Matrix for Six Scales

Scales	Foreign Language Proficiency	Knowledge of a Region or Country	International Knowledge	International Attitudes and Perceptions	Cross-Cultural Skills	International Behaviours
Foreign Language Proficiency	-					
Knowledge of a Region or Country	.35***	-				
International Knowledge	-.02	.27***	-			
International Attitudes and Perceptions	.18***	.27***	.29***	-		
Cross-Cultural Skills	.24***	.33***	.24***	.65***	-	
International Behaviours	.29***	.42***	.34***	.72***	.67***	-

*** $p<.001$ (2-tailed).

Table 22

Interdimensional Correlation Matrix for Subscales of Three Affective Scales

	IA&P - GIC[a]	IA&P – CP[b]	IA&P – CNS[c]	CC Skills – ICT[d]	CC Skills – IF[e]	CC Skills – BF[f]	IB – AI[g]	IB – ICI[h]	IB – CI[i]	IB – PI[j]
IA&P - GIC[a]	-									
IA&P – CP[b]	.54***	-								
IA&P – CNS[c]	.42***	.43***	-							
CC Skills – ICT[d]	.50***	.67***	.36***	-						
CC Skills – IF[e]	.38***	.54***	.28***	.59***	-					
CC Skills – BF[f]	.40***	.37***	.20***	.42***	.41***	-				
IB – AI[g]	.35***	.37***	.29***	.34***	.27***	.20***	-			
IB – ICI[h]	.60***	.65***	.39***	.66***	.65***	.44***	.45***	-		
IB – CI[i]	.34***	.24***	.11***	.25***	.25***	.14***	.27***	.37***	-	
IB – PI[j]	.56***	.39***	.34***	.41***	.31***	.28***	.39***	.54***	.29***	-

[a]GIC=Global Interdependence and Cooperation. [b]CP=Cultural Pluralism. [c]CNS=Cultural and National Self-Awareness. [d]ICT=Intercultural Communication and Teamwork. [e]IF=Intercultural Friendship. [f]BF=Behavioural Flexibility. [g]AI=Academic Involvement. [h]ICI=Intercultural Curiosity and Involvement. [i]CI=Charitable Involvement. [j]PI=Political Involvement.
*** $p<.001$ (2-tailed).

Individual Scale Statistics

Foreign Language Proficiency. Of the 1293 students who completed the question related to speaking or studying a foreign language, 80.7% spoke or had studied a language other than English and 19.3% neither spoke nor had studied another

language, so they received an automatic zero on the foreign language proficiency scales. The foreign language scales, which consisted of 11 levels each, with 1 being the lowest and 11 the highest), were completed by 1291 students. The mean for this scale (including zero scores) was 21.34 (26.57 without zero scores), standard deviation: 19.68, variance: 387.37, and Cronbach's alpha: .98. Of the 1037 students who did not receive automatic zeros on these scales, 156 (15.0%) put 1 for each of the questions, essentially indicating that they had no usable foreign language skills. Means (with/without zero scores) for the seven components were as follows: Reading: 3.17/3.93, Writing: 2.66/3.30, Speaking Vocabulary: 3.05/3.78, Speaking Fluency: 2.70/3.35, Speaking Pronunciation: 3.58/4.44, Speaking Grammar: 2.96/3.67, and Listening Comprehension: 3.31/4.10. Future analyses for this scale will use scores for all participants, including those who were automatically assigned a zero.

Knowledge of a Specific Region or Country. On the question of whether students had knowledge of a specific region or country other than their own, 506 (44.1%) of the 1148 respondents responded positively and the remaining 642 (55.9%) were given an automatic score of zero. Five hundred and one students completed the six-item scale. The mean (including zero scores) was 5.60 (12.77 without zero scores), standard deviation: 7.87, variance: 61.85, and Cronbach's alpha: .96. Means (with/without zero scores) on a scale of 1 to 5 (1 indicating the least knowledge and 5 the most) for individual questions were: "In relation to where knowledge of the country/region fits within my discipline (e.g., business, journalism, political science, literature)": 1:00/2.29; "History of the country/region": 0.94/2.14; "Culture (customs, etiquette, family life, religion, values, behaviour, etc.) of the country/region": 1.19/2.72; "Government and domestic politics of the country/region": 0.77/1.77; "Foreign policy of the country/region": 0.66/1.50; "Geography, population, and natural characteristics of the country/region": 1.03/2.36. Future analyses for this scale will use scores for all participants, including those who were automatically assigned a zero.

International Knowledge. The scale of International Knowledge was completed by 1230 students. Correct answers were scored 1, incorrect 0, and then an average score was computed from the 20 questions. The mean score was 0.51, standard deviation: 0.18, variance: 0.03, and Cronbach's alpha: .68. While this reliability was lower than desired, it may be because the original scale from which the instrument is drawn (Barrows, 1981) was more than five times longer (101 questions). Longer tests are generally more reliable (Jacobs, 1991). The Spearman-Brown Prophecy Formula can be used to predict the reliability of a test had it been the same as its original length (Brown,

2001). If this test were 100 questions, the Spearman-Brown Prophecy Formula shows that its Cronbach's alpha would be .91. Because of the lower reliability for this scale, individual items were examined to determine whether their elimination would improve scale reliability. Question 1 was the only question whose deletion would improve reliability (from .681 to .685), however only marginally so, so it was left in the scale. The percentage of students answering each question correctly is shown in Table 23.

Table 23

Correct and Incorrect Response Rates on International Knowledge Scale

Question	Percent correct	Percent incorrect
1	37.2%	62.8%
2	34.5%	65.5%
3	88.4%	11.6%
4	38.3%	61.7%
5	79.3%	20.7%
6	54.7%	45.3%
7	47.6%	52.4%
8	44.0%	56.0%
9	57.2%	42.8%
10	83.6%	16.4%
11	41.9%	58.1%
12	48.6%	51.4%
13	29.1%	70.9%
14	38.5%	61.5%
15	52.8%	47.2%
16	27.1%	72.9%
17	56.4%	43.6%
18	56.9%	43.1%
19	41.5%	58.5%
20	48.2%	51.8%

International Attitudes and Perceptions. This scale was completed by 1141 students. The mean score of the 15 items left in this scale after factor analysis was 54.62, standard deviation: 8.28, variance: 68.55, and Cronbach's alpha: .85. The mean scores, standard deviations and variances for the subscales were as follows: Global Interdependence and Cooperation: (M=33.17, SD=5.41, Var=29.28), Cultural Pluralism: (M=15.67, SD=2.75, Var=7.54), and Cultural and National Self-Awareness: (M=5.78, SD=1.81, Var=3.27). The breakdown of student responses for each question on this scale can be found in Appendix K.

Cross-Cultural Skills. This scale was completed by 1134 students. The mean score of the 13 items left in this scale after factor analysis was 49.49, standard deviation: 6.92, variance: 47.83, and Cronbach's alpha: .85. The mean scores, standard deviations and variances for the subscales were as follows: Intercultural Communication

and Teamwork: (*M*=22.07, *SD*=3.35, *Var*=11.19), Intercultural Friendship: (*M*=15.70, *SD*=3.19, *Var*=10.16), and Behavioural Flexibility: (*M*=11.72, *SD*=1.90, *Var*=3.60). The breakdown of student responses for each question on this scale can be found in Appendix L.

International Behaviours. This scale was completed by 1116 students. The mean score of the 15 items left in this scale after factor analysis was 51.09, standard deviation: 8.29, variance: 68.70, and Cronbach's alpha: .83. The mean scores, standard deviations and variances for the subscales were as follows: Academic Involvement: (*M*=5.97, *SD*=1.95, *Var*=3.79), Intercultural Curiosity and Involvement: (*M*=25.67, *SD*=4.27, *Var*=18.24), Charitable Involvement: (*M*=5.89, *SD*=1.81, *Var*=3.26), and Political Involvement: (*M*=13.73, *SD*=2.83, *Var*=8.03). The breakdown of student responses for each question on this scale can be found in Appendix M.

Relationship Between Independent Variables and Dependent Measures

In this section, the relationship between the background and internationalisation variables and the dependent scales and subscales representing areas of internationalisation is examined. First, the method of analysis is described, followed by a description of the multivariate and univariate effects.

Method of Analysis

Analyses of the relationship between the IVs, the three knowledge scales, and the 10 affective subscales were conducted using MANOVAs. Each of the 58 IVs considered was entered into the MANOVA with the DVs. Combinations of two to three IVs were also entered together to look for interactions, with IVs selected such that cell sizes equalled or exceeded 30 (i.e., sufficient cell size to ensure normalcy of distribution of individual differences). When significant interactions were found, the file was split by both variables and MANOVAs were conducted with the other variable and only the significant findings were reported. Whenever Levene's test for homogeneity of variance was significant at the $p<.01$ level (in most cases on one to four of the 13 scales and subscales), nonparametric statistics (Kruskal-Wallis) were used to confirm the effects obtained via the MANOVAs. When significant interactions were found on scales for which Levene's was significant, the file was split by the significant variable and Kruskal-Wallis was used to confirm the effects on the other variable. In almost all cases, the Kruskal-Wallis tests confirmed the findings of the MANOVAs. In those cases, the results of the MANOVAs only were reported. In cases where significant results were found on one test but not the other, they were not reported. Because of the large number of IVs and DVs, the consequent number of significance tests, and the increased

likelihood of making a Type I error, a Bonferroni correction was made such that only results significant at the $p<.001$ level were reported (Abdi, 2007).

Multivariate Effects

Significant multivariate effects were found for the majority of IVs (see Table 24). There were no significant multivariate effects for major: biological or physical sciences; major: social sciences, law, criminology, or international studies; and socio-economic status. In addition, no statistically significant results were found for students who had studied abroad in terms of the effect of level of school at which they studied abroad, duration, number of study abroad experiences, or level of immersion. Also, for students who had travelled abroad, no significant effects were found for travel abroad at any age except 18 and above. Among those who had travelled to a developing country, only non-significant effects were obtained in relation to those who had gone for the purposes of work, cultural exchange, or study abroad.

Univariate Effects: Background Variables

Country. Country was entered into a MANOVA with the DVs. Significant univariate effects were found on two scales and three subscales such that American students scored significantly higher on all five (see Table 25). Question-level examination of differences were performed for several scales using MANOVAs. On the scale of IB – Academic Involvement, significant differences were found on both questions. On the scale of IA&P – Cultural and National Self-Awareness, significant differences were only found for question 17: "It upsets me when migrants or international visitors criticise my country." On the scale of IA&P – Cultural Pluralism, significant differences were only found for question 5: "I prefer to work with students from my own country on group projects – it makes things easier."

Year at university. Year at university was entered into a MANOVA with the DVs. Significant univariate effects were found for year at university on two scales and three subscales such that final-year students scored significantly higher on all five (see Table 26).

Interaction between country and year at university. Country and year at university were entered into a MANOVA. One significant interaction was found on the scale of Knowledge of a Specific Region or Country ($F(1,1103) = 13.95$, $p<.001$). The file was split by country to examine the interaction. It was found that the improvement for final-year students on the scale of Knowledge of a Specific Region or Country held true only for American students. The file was then split by year at university and a

Table 24

Significant Multivariate Effects (at p<*.001 level)*

Variable(s)	Pillai's Trace	*F*	*df*	Error *df*
Country	.17	16.74	13	1093
Year at university	.07	6.65	13	1093
Country * year at university	.03	2.92	13	1091
University	.21	10.04	26	2186
University * year at university	.05	2.32	26	2180
Total years at university	.14	4.04	39	3279
Age	.14	6.37	26	2186
Gender	.16	15.83	13	1093
Race/ethnic group	.15	6.57	26	2182
Born out of the country	.09	7.88	13	1093
Second language spoken at home	.28	31.99	13	1092
Mother born abroad	.11	9.89	13	1093
Father born abroad	.10	9.42	13	1091
Mother born abroad * father born abroad	.03	2.87	13	1089
Mother's education	.14	2.33	65	5445
Father's education	.11	1.83	65	5405
GPA	.09	2.01	39	2595
Major: business, economics, or hospitality	.04	3.68	13	1093
Major: humanities, communication, journalism, or foreign languages	.06	5.45	13	1093
Major: education	.03	2.72	13	1093
Major: engineering, aviation, IT, or mathematics	.05	4.57	13	1093
Major: health, human, or medical sciences	.03	2.66	13	1093
Political beliefs	.34	7.84	52	4368
Religion	.19	5.53	39	3273
Frequency of attendance at religious services	.11	3.25	39	3279
How often international news was watched on TV or listened to on radio	.35	10.93	39	3279
TV stations watched for international news: Australia	.30	5.75	39	2043
TV stations watched for international news: U.S.	.30	2.30	52	1464
How often international news was read in newspaper, magazine, or online	.29	9.14	39	3279
International major	.11	10.41	13	1093
Courses with primarily international content	.16	7.20	26	2186
Courses with some international content	.16	7.39	26	2184
Participation in group projects with international students	.07	6.03	13	1093
Number of international friends	.37	11.69	39	3276
Dated someone from another country	.12	11.68	13	1093
Number of international events attended in the past year	.22	6.60	39	3279
Number of international lecturers or teaching assistants	.14	2.93	52	4360
Study abroad	.16	15.33	13	1086
Other travel abroad	.07	6.05	13	1089
Travel to a developing country (including only those who had studied or travelled abroad)	.08	5.04	13	737
Including only those who had travelled to a developing country:				
Purpose of travel to developing country: lived with own family	.19	4.97	13	277
Purpose of travel to developing country: tourism or military	.13	3.23	13	277
Including only those who had travelled abroad:				
Other travel abroad: ages 18 and up	.07	4.34	13	707
Other travel abroad: number of trips	.10	1.86	39	2121
Purpose of other travel abroad	.21	6.30	26	1414
Duration of other travel abroad	.20	2.80	52	2828

Table 25

Significant Univariate Effects for Country (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Country	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	1	1105	42.58	Australia	18.47	16.12	20.82
				U.S.	26.31	23.12	29.50
Knowledge of a Specific Region or Country	1	1105	18.07	Australia	4.90	3.93	5.86
				U.S.	6.99	5.68	8.30
IA&P - Cultural Pluralism	1	1105	12.90	Australia	15.46	15.12	15.80
				U.S.	16.08	15.62	16.54
IA&P – Cultural and National Self-Awareness	1	1105	13.16	Australia	5.64	5.42	5.86
				U.S.	6.05	5.75	6.35
IB – Academic Involvement	1	1105	100.09	Australia	5.37	5.14	5.60
				U.S.	6.55	6.24	6.86

Table 26

Significant Univariate Effects for Year at University (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Year at university	Means	99.9% confidence interval	
						Lower bound	Upper bound
Knowledge of a Specific Region or Country	1	1105	21.70	First-year	4.66	3.61	5.70
				Final-year	6.86	5.70	8.02
International Knowledge	1	1105	47.32	First-year	.48	.45	.50
				Final-year	.55	.52	.57
CC Skills – Intercultural Communication and Teamwork	1	1105	13.56	First-year	21.76	21.32	22.20
				Final-year	22.50	22.01	23.00
IB – Academic Involvement	1	1105	17.16	First-year	5.57	5.31	5.83
				Final-year	6.06	5.77	6.34
IB – Political Involvement	1	1105	29.33	First-year	13.32	12.95	13.69
				Final-year	14.24	13.82	14.66

MANOVA was performed to investigate the effects for country. It was found that final-year American students performed significantly better than final-year Australian students on the scale of Knowledge of a Specific Region or Country.

University. University was entered into a MANOVA with the DVs. Significant univariate effects were found on three scales and three subscales (see Table 27). Pairwise comparisons revealed that for the scales of Foreign Language Proficiency and IB – Academic Involvement, GU students scored significantly lower than students from both American universities. Further MANOVAs confirmed that the significant differences in IB – Academic Involvement held true for both questions. On the scales of Knowledge of a Specific Region or Country and CC Skills – Intercultural Communication and Teamwork, GU students scored significantly lower than students from KSU. Question-level comparisons for CC Skills – Intercultural Communication

Table 27

Significant Univariate Effects for University

Dependent variable	*df*	*df* error	*F*	University	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	2	1104	21.67	GU	18.47	16.12	20.82
				KSU	25.45	20.89	30.00
				UCBS	27.13	22.67	31.60
Knowledge of a Specific Region or Country	2	1104	9.53	GU	4.90	3.93	5.86
				KSU	7.40	5.53	9.27
				UCBS	6.60	4.77	8.44
International Knowledge	2	1104	11.55	GU	.52	.49	.54
				KSU	.53	.49	.58
				UCBS	.46	.41	.50
IA&P - Cultural and National Self-Awareness	2	1104	8.24	GU	5.64	5.42	5.86
				KSU	5.88	5.45	6.31
				UCBS	6.21	5.79	6.63
CC Skills - Intercultural Communication and Teamwork	2	1104	8.03	GU	21.85	21.44	22.26
				KSU	22.93	22.14	23.73
				UCBS	22.15	21.37	22.93
IB – Academic Involvement	2	1104	50.38	GU	5.37	5.14	5.60
				KSU	6.47	6.02	6.91
				UCBS	6.62	6.19	7.06

and Teamwork showed that KSU students scored significantly higher than GU students on questions 1 (I have worked successfully with international students on group projects.) and 4 (Sometimes international students have different communication styles, but we still manage to communicate well.) and higher than UCBS students on question 1 as well. On the scale of International Knowledge, students from UCBS scored significantly lower than students from the other two universities. On the scale of IA&P – Cultural and National Self-Awareness, GU students scored significantly lower than UCBS students. Question-level analysis showed that significant differences on this scale were only found on question 17 (It upsets me when migrants or international visitors criticise my country.)

Interaction between university and year at university. One significant interaction was found between university and year at university on the scale of Knowledge of a Specific Region or Country ($F(2,1101) = 6.78$, $p<.001$). To examine the interaction, the file was split by university and a MANOVA was run for year at university. Because GU was the only university in Australia, these results will be the same as for country and will not be repeated here. The only other significant finding was that final-year students from UCBS scored significantly higher than first-year students on the scale of Knowledge of a Specific Region or Country.

Total years at university. Total years at university was entered into a MANOVA with the DVs. Significant univariate effects were found for two scales and six subscales (see Table 28). Pairwise comparisons revealed that for Knowledge of a Specific Region

Table 28

Significant Univariate Effects for Total Years at University

Dependent variable	*df*	*df* error	*F*	Total years at university	Means	99.9% confidence interval	
						Lower bound	Upper bound
Knowledge of a Specific Region or Country	3	1103	18.07	1 or less	4.05	2.91	5.19
				>1 and ≤ 3	5.89	4.12	7.65
				>3 and ≤ 4	6.20	4.32	8.09
				>4	8.61	6.87	10.34
International Knowledge	3	1103	26.80	1 or less	.46	.43	.48
				>1 and ≤ 3	.53	.49	.57
				>3 and ≤ 4	.54	.50	.58
				>4	.57	.54	.61
IA&P – Cultural Pluralism	3	1103	5.73	1 or less	15.41	15.00	15.81
				>1 and ≤ 3	15.50	14.88	16.13
				>3 and ≤ 4	15.91	15.25	16.58
				>4	16.27	15.65	16.89
IA&P – Cultural and National Self-Awareness	3	1103	5.72	1 or less	5.71	5.44	5.97
				>1 and ≤ 3	5.61	5.20	6.02
				>3 and ≤ 4	5.66	5.22	6.10
				>4	6.23	5.83	6.64
CC Skills – Intercultural Communication and Teamwork	3	1103	5.86	1 or less	21.71	21.22	22.20
				>1 and ≤ 3	22.08	21.32	22.84
				>3 and ≤ 4	22.27	21.46	23.08
				>4	22.83	22.08	23.58
IB – Academic Involvement	3	1103	8.05	1 or less	5.53	5.24	5.81
				>1 and ≤ 3	5.81	5.37	6.25
				>3 and ≤ 4	5.86	5.39	6.33
				>4	6.29	5.86	6.73
IB – Intercultural Curiosity and Involvement	3	1103	5.23	1 or less	25.15	24.52	25.77
				>1 and ≤ 3	25.97	25.00	26.94
				>3 and ≤ 4	26.01	24.97	27.04
				>4	26.38	25.42	27.33
IB – Political Involvement	3	1103	18.92	1 or less	13.11	12.71	13.52
				>1 and ≤ 3	13.88	13.24	14.51
				>3 and ≤ 4	14.02	13.35	14.70
				>4	14.76	14.13	15.38

or Country, students with one year or less of university scored significantly lower than those with more than three years of university. On the scales of International Knowledge and IB – Political Involvement, students with one year or less of university scored significantly lower than all the other groups. On the subscales of IA&P – Cultural Pluralism, CC Skills – Intercultural Communication and Teamwork, IB –

Academic Involvement, and IB – Intercultural Curiosity and Involvement, students with one year or less of university scored significantly lower than those students with four or more years of university. Finally, on the subscale of IA&P – Cultural and National Self-Awareness, students with more than four years of university scored significantly higher than those with three years of university or less.

Age. Age was entered into a MANOVA with the DVs. Significant univariate effects were found on two scales and four subscales (see Table 29). Pairwise

Table 29

Significant Univariate Effects for Age (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Age	Means	99.9% confidence interval	
						Lower bound	Upper bound
Knowledge of a Specific Region or Country	2	1104	16.54	16-18 yrs	3.83	2.47	5.18
				19-22 yrs	5.88	4.53	7.23
				23+ yrs	7.08	5.78	8.39
International Knowledge	2	1104	60.23	16-18 yrs	.44	.42	.47
				19-22 yrs	.50	.47	.52
				23+ yrs	.58	.55	.61
IA&P – Cultural Pluralism	2	1104	12.90	16-18 yrs	15.28	14.80	15.75
				19-22 yrs	15.48	15.00	15.95
				23+ yrs	16.23	15.78	16.69
CC Skills – Intercultural Communication and Teamwork	2	1104	9.97	16-18 yrs	21.65	21.07	22.22
				19-22 yrs	21.90	21.32	22.47
				23+ yrs	22.68	22.13	23.24
IB – Intercultural Curiosity and Involvement	2	1104	9.55	16-18 yrs	25.00	24.26	25.74
				19-22 yrs	25.64	24.91	26.38
				23+ yrs	26.35	25.64	27.07
IB – Political Involvement	2	1104	21.30	16-18 yrs	13.10	12.62	13.59
				19-22 yrs	13.60	13.12	14.09
				23+ yrs	14.42	13.95	14.89

comparisons showed that for the scale of Knowledge of a Specific Region or Country, 16-18 year olds had significantly lower scores than both of the other age groups. On the scale of International Knowledge, all three age groups were significantly different from one another. On the subscales of IA&P – Cultural Pluralism and IB – Political Involvement, students aged 23 and over were significantly different from both of the other age groups. On the subscales of CC Skills – Intercultural Communication and Teamwork and IB – Intercultural Curiosity and Involvement, students aged 23 and over were significantly different than those between the ages of 16 and 18.

Gender. Gender was entered into a MANOVA with the DVs. Significant univariate effects were found for two scales and four subscales (see Table 30) such that males scored significantly higher than females on the scales of Knowledge of a Specific

Table 30

Significant Univariate Effects for Gender (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Gender	Means	99.9% confidence interval	
						Lower bound	Upper bound
Knowledge of a Specific Region or Country	1	1105	15.51	Male	7.04	5.63	8.45
				Female	5.02	4.09	5.95
International Knowledge	1	1105	53.41	Male	.57	.53	.60
				Female	.48	.46	.50
IA&P – Global Interdependence and Cooperation	1	1105	14.32	Male	32.22	31.25	33.20
				Female	33.56	32.92	34.20
IA&P – Cultural Pluralism	1	1105	26.62	Male	15.04	14.55	15.53
				Female	15.96	15.63	16.28
IB – Intercultural Curiosity and Involvement	1	1105	21.32	Male	24.79	24.03	25.55
				Female	26.07	25.57	26.57
IB – Charitable Involvement	1	1105	24.71	Male	5.49	5.17	5.81
				Female	6.07	5.86	6.29

Region or Country and International Knowledge and females scored significantly higher than males on the four affective subscales.

Race/ethnic group. Race/ethnic group was entered into a MANOVA with the DVs. Significant univariate effects were found on three scales and three subscales (see Table 31). Pairwise comparisons revealed that the differences on the scale of Foreign Language Proficiency were due to others scoring significantly higher than both of the other groups. On the scales of Knowledge of a Specific Region or Country and CC Skills – Intercultural Communication and Teamwork, others scored significantly higher than Whites. On the scales of IA&P - Cultural Pluralism and IB – Academic Involvement, Blacks scored significantly higher than Whites. On the scale of International Knowledge, none of the pairwise comparisons were significant at the *p*<.001 level.

Born out of the country. Born out of the country was entered into the MANOVA with the DVs. Significant univariate effects were found on two scales such that those who were born abroad had significantly higher scores (see Table 32).

Second language spoken at home. Second language spoken at home was entered into a MANOVA with the DVs. Significant univariate effects were found on three scales and four subscales (see Table 33). Those who spoke or understood a second language at home scored significantly higher on all the scales except one, International Knowledge, where they scored significantly lower.

Table 31

Significant Univariate Effects for Race/Ethnic Group (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Race/ ethnic group	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	2	1102	46.94	White[a]	18.72	16.66	20.79
				Black[b]	24.68	16.84	32.51
				Other[c]	34.47	29.45	39.49
Knowledge of a Specific Region or Country	2	1102	13.59	White[a]	5.08	4.22	5.94
				Black[b]	6.21	2.94	9.48
				Other[c]	8.64	6.54	10.73
International Knowledge	2	1102	6.85	White[a]	.52	.50	.54
				Black[b]	.45	.38	.53
				Other[c]	.48	.43	.52
IA&P – Cultural Pluralism	2	1102	8.88	White[a]	15.51	15.21	15.81
				Black[b]	16.76	15.61	17.90
				Other[c]	16.17	15.43	16.90
CC Skills – Intercultural Communication and Teamwork	2	1102	10.60	White[a]	21.86	21.50	22.23
				Black[b]	23.27	21.89	24.66
				Other[c]	22.91	22.02	23.80
IB – Academic Involvement	2	1102	7.50	White[a]	5.68	5.47	5.90
				Black[b]	6.57	5.75	7.38
				Other[c]	6.03	5.51	6.55

[a]White, European American/Australian, non-Hispanic. [b]Aboriginal, Torres Strait Islander, Black, or African-American (all or part). [c]Other or multiracial (White + other).

Table 32

Significant Univariate Effects for Born out of the Country (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Born out of the country	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	1	1105	66.06	Yes	34.17	28.59	39.75
				No	19.58	17.59	21.57
Knowledge of a Specific Region or Country	1	1105	24.42	Yes	8.89	6.58	11.19
				No	5.22	4.40	6.04

Mother born abroad. Mother born abroad was entered into a MANOVA with the DVs. Significant univariate effects were found on two scales such that those whose mothers were born abroad scored higher on both (see Table 34).

Father born abroad. Father born abroad was entered into a MANOVA with the DVs. Significant univariate effects were found on two scales and one subscale such that those whose fathers were born abroad scored higher on both (see Table 35).

Table 33

Significant Univariate Effects for Second Language Spoken at Home (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Second language spoken at home	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	1	1104	346.32	Yes	42.20	38.11	46.28
				No	16.91	15.06	18.76
Knowledge of a Specific Region or Country	1	1104	48.34	Yes	9.18	7.32	11.03
				No	4.89	4.05	5.73
International Knowledge	1	1104	13.28	Yes	.47	.42	.51
				No	.52	.50	.54
IA&P – Cultural Pluralism	1	1104	13.07	Yes	16.34	15.68	17.00
				No	15.54	15.24	15.84
CC Skills – Intercultural Communication and Teamwork	1	1104	16.67	Yes	22.99	22.19	23.79
				No	21.90	21.54	22.27
IB – Academic Involvement	1	1104	13.02	Yes	6.25	5.78	6.72
				No	5.69	5.48	5.90
IB – Intercultural Curiosity and Involvement	1	1104	11.79	Yes	26.65	25.63	27.68
				No	25.49	25.02	25.95

Table 34

Significant Univariate Effects for Mother Born Abroad (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Mother born abroad	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	1	1105	83.37	Yes	29.95	26.29	33.61
				No	18.19	16.03	20.35
Knowledge of a Specific Region or Country	1	1105	19.40	Yes	7.39	5.86	8.92
				No	5.02	4.12	5.92

Table 35

Significant Univariate Effects for Father Born Abroad (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Father born abroad	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	1	1103	71.32	Yes	29.42	25.72	33.13
				No	18.43	16.26	20.60
Knowledge of a Specific Region or Country	1	1103	25.6	Yes	7.67	6.14	9.21
				No	4.94	4.04	5.84
IA&P – Global Interdependence and Cooperation	1	1103	13.23	Yes	34.16	33.10	35.22
				No	32.80	32.18	33.42

Interaction between mother born abroad and father born abroad. Mother born abroad and father born abroad were entered into a MANOVA with the DVs. A significant interaction was found for the scale of Foreign Language Proficiency (see Table 36). The file was split by father born abroad and a MANOVA was run on mother

Table 36

Significant Interaction Between Mother and Father Born Abroad (at the p<*.001 level)*

Independent variable(s)	*df*	*df* error	*F*	Parent(s) born abroad	99.9% confidence interval		
					Means	Lower bound	Upper bound
Interaction of Mother * Father Born Abroad	1	1101	21.03	Both	34.14	29.84	38.45
				Mother only	19.88	13.22	26.54
				Father only	17.70	10.93	24.48
				Neither	18.27	16.02	20.51

born abroad to investigate the interaction. It was found that when the father was born abroad, if the mother was born abroad as well, the student's score was significantly higher on the scale of Foreign Language Proficiency.

Mother's education. Mother's education was entered into a MANOVA with the DVs. Significant univariate effects were found for three scales and two subscales (see Table 37). Pairwise comparisons showed that on the scale of Foreign Language Proficiency, students whose mother had less than a high school qualification scored significantly lower than those whose mother had some university studies or more. There was also a significant difference between those whose mother had a high school qualification and those whose mother had some university or an undergraduate degree. On the scale of Knowledge of a Specific Region or Country, those whose mother had a high school qualification scored significantly lower than those whose mother had some university or postgraduate or research studies or more. On the scale of International Knowledge, those whose mother had a TAFE or technical school degree scored significantly lower than those whose mother had some postgraduate studies or more. On the scale of IB – Academic Involvement, those whose mother had some university scored significantly higher than all other groups except those with some postgraduate studies or more. In addition, those whose mother had a high school qualification or less scored significantly lower than those whose mother had some postgraduate studies or more. On IB – Charitable Involvement, those whose mothers had a high school qualification scored significantly lower than those whose mothers had some postgraduate studies or more. Question-level examination revealed that this result held true only for question 6: "I have volunteered for a charity that works internationally."

Father's education. Father's education was entered into a MANOVA with the DVs. Significant univariate effects were found for three scales (see Table 38). Pairwise comparisons revealed that on the scale of Foreign Language Proficiency, the only significant difference was between those whose father had some postgraduate studies or more and those whose father had less than a high school qualification. On the scale of

Table 37

Significant Univariate Effects for Mother's Education (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Mother's education	Means	99.9% confidence interval Lower bound	Upper bound
Foreign Language Proficiency	5	1097	7.21	< High school	15.90	11.14	20.66
				High school	18.84	15.24	22.44
				TAFE/tech[a] school	21.00	15.67	26.33
				Some university	25.56	20.03	31.09
				Undergrad[b] degree	24.83	20.39	29.27
				Some postgrad[c]	24.36	19.05	29.67
Knowledge of a Specific Region or Country	5	1097	5.14	< High school	4.91	2.97	6.85
				High school	4.45	2.99	5.91
				TAFE/tech[a] school	6.03	3.86	8.20
				Some university	7.73	5.48	9.98
				Undergrad[b] degree	5.23	3.43	7.04
				Some postgrad[c]	7.34	5.18	9.50
International Knowledge	5	1097	4.06	< High school	.49	.45	.53
				High school	.50	.46	.53
				TAFE/tech[a] school	.47	.42	.52
				Some university	.51	.46	.56
				Undergrad[b] degree	.54	.50	.58
				Some postgrad[c]	.55	.50	.59
IB – Academic Involvement	5	1097	10.71	< High school	5.25	4.78	5.72
				High school	5.52	5.17	5.88
				TAFE/tech[a] school	5.76	5.23	6.29
				Some university	6.66	6.11	7.21
				Undergrad[b] degree	5.84	5.40	6.28
				Some postgrad[c]	6.17	5.64	6.70
IB – Charitable Involvement	5	1097	5.29	< High school	6.10	5.66	6.55
				High school	5.56	5.22	5.90
				TAFE/tech[a] school	5.71	5.21	6.21
				Some university	5.95	5.43	6.46
				Undergrad[b] degree	6.00	5.58	6.41
				Some postgrad[c]	6.39	5.90	6.89

[a]Tech=technical. [b]Undergrad=undergraduate. [c]Postgrad=postgraduate.

Knowledge of a Specific Region or Country, those whose father had less than a high school qualification scored significantly lower than those whose father had either some university but less than an undergraduate degree or some postgraduate studies or more. In addition, those whose father had a high school qualification scored significantly lower than those whose father had some postgraduate studies or more. On the scale of International Knowledge, those whose father had a high school qualification scored significantly lower than those whose father had an undergraduate degree or more.

Table 38

Significant Univariate Effects for Father's Education (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Father's education	Means	99.9% confidence interval Lower bound	Upper bound
Foreign Language Proficiency	5	1089	5.27	< High school	16.52	11.87	21.18
				High school	19.04	15.31	22.78
				TAFE/tech[a] school	23.34	17.87	28.82
				Some university	24.01	18.03	29.99
				Undergrad[b] degree	22.76	18.40	27.13
				Some postgrad[c]	25.03	19.97	30.09
Knowledge of a Specific Region or Country	5	1089	5.30	< High school	4.36	2.48	6.25
				High school	4.90	3.39	6.41
				TAFE/tech[a] school	4.97	2.76	7.18
				Some university	7.69	5.27	10.11
				Undergrad[b] degree	5.64	3.87	7.40
				Some postgrad[c]	7.61	5.57	9.65
International Knowledge	5	1089	4.58	< High school	.49	.45	.53
				High school	.48	.45	.52
				TAFE/tech[a] school	.50	.45	.55
				Some university	.50	.45	.56
				Undergrad[b] degree	.54	.50	.58
				Some postgrad[c]	.55	.50	.59

[a]Tech=technical. [b]Undergrad=undergraduate. [c]Postgrad=postgraduate.

Summary of Univariate Effects for Background Variables. Significant univariate effects were found for the background variables of country, university, year at university, total years at university, gender, age, race/ethnic group, born out of the country, mother born abroad, father born abroad, second language spoken at home, mother's education, and father's education on one or more scales. For year at university, significant differences were found favouring final-year students on five scales and subscales. For age and total years at university, significant differences were found for six and eight scales and subscales, respectively. While a steady increase was noted for each successive group, in general, significant differences were only found between those groups that were at least two levels apart.

Significant differences for country were found such that U.S. students scored significantly higher on five scales, two knowledge and three affective. When examined for each individual university, two of these effects were found to apply to both U.S. universities (those relating to interest and ability in foreign languages and interest in international courses), one was due to superior performance by KSU students as compared to GU students, and one was due to superior performance of UCBS students as compared to GU students. The final one did not reach significance when examined

by university. One additional significant difference was found at the university level whereby UCBS students scored significantly lower than KSU and GU students on International Knowledge. Interactions between university and year at university revealed superior performance for final-year American students only on Knowledge of a Specific Region or Country (as compared to final-year Australian students and first-year American students). The interaction between university and year at university further revealed that this last finding was the result of final-year UCBS students scoring significantly higher than first-year UCBS students.

Differences for gender favoured women for four affective subscales and men for the two international knowledge scales. Differences found for race/ethnic group favoured others on foreign languages, intercultural skills, and knowledge of other regions and countries, and favoured Blacks on two affective scales.

For each of the variables related to foreign ancestry (born out of the country, mother born abroad, father born abroad, and second language spoken at home), superior performance was found on the scales of Foreign Language Proficiency and Knowledge of a Specific Region or Country. There was also an interaction between mother and father born abroad on Foreign Language Proficiency such that those with both parents born abroad scored significantly higher than those with just one born abroad. In addition, those whose fathers were born abroad also performed better on IA&P – Global Interdependence and Cooperation and those who spoke a second language at home performed better on IA&P – Cultural Pluralism, CC Skills – Intercultural Communication and Teamwork, IB – Academic Involvement, and IB – Intercultural Curiosity and Involvement, and worse on International Knowledge.

Significant effects were found on the three knowledge scales for both mother's and father's education; however, there were differences between which groups were significantly different from one another. Generally, as education rose, scores rose, but there was a peak in scores at the level of *some university studies* for the first two knowledge scale scores for both variables. Significantly higher scores were also found for higher levels of mother's education on two affective subscales: IB – Academic Involvement and IB – Charitable Involvement, and the same peak at the level of *some university* was found for IB – Academic Involvement, which may indicate that this effect is some type of interaction with the variables related to foreign ancestry.

Significant univariate effects were found for thirteen background variables on one or more scales or subscales. Positive results were associated with being American, attending KSU in two instances and UCBS in one, having more years of university,

being female for affective scales and male for international knowledge scales, being older, not being White, having foreign ancestry, speaking a second language at home, and having more educated parents.

Univariate Effects: Academic Performance and Course of Study

GPA. GPA was entered into a MANOVA with the DVs. The only significant univariate effect found for GPA was on the scale of International Knowledge (see Table 39). Pairwise comparisons revealed that there were significant differences between those in the fourth quartile and all other groups.

Table 39

Significant Univariate Effects for GPA (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	GPA quartiles	Means	99.9% confidence interval	
						Lower bound	Upper bound
International Knowledge	3	875	11.04	1st quartile	.47	.43	.51
				2nd quartile	.50	.46	.54
				3rd quartile	.51	.47	.55
				4th quartile	.56	.53	.60

Major: business, economics, or hospitality. Major: business, economics, or hospitality was entered into a MANOVA with the DVs. A significant univariate effect was found on one scale: IA&P – Cultural and National Self-Awareness ($F(1,1105) = 17.67$, $p<.001$) such that students majoring in business scored significantly lower than those not majoring in business. The mean for those majoring in business was 5.34 (confidence interval: 4.94-5.73) and for those not majoring in business, it was 5.90 (confidence interval: 5.70-6.10).

Major: engineering, aviation, IT, or mathematics. Major: engineering, aviation, IT, or mathematics was entered into a MANOVA with the DVs. Significant univariate effects were found on two subscales such that students with those majors scored significantly lower than students without those majors (see Table 40).

Table 40

Significant Univariate Effects for Major: Engineering, Aviation, IT, or Mathematics (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Major: engineering, aviation, IT, or mathematics	Means	99.9% confidence interval	
						Lower bound	Upper bound
IA&P - Cultural Pluralism	1	1105	34.00	False	5.83	5.63	6.02
				True	5.44	4.91	5.97
IB - Intercultural Curiosity and Involvement	1	1105	20.55	False	25.89	25.44	26.34
				True	24.09	22.85	25.32

Major: humanities, communication, journalism, or foreign languages. Major: humanities, communication, journalism, or foreign languages was entered into a MANOVA with the DVs. Significant univariate effects were found on four scales such that students in those majors scored higher than students who were not in those majors (see Table 41).

Table 41

Significant Univariate Effects for Major: Humanities, Communication, Journalism, or Foreign Languages (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Major: humanities, communication, journalism, or foreign languages	Means	99.9% Confidence Interval Lower bound	99.9% Confidence Interval Upper bound
Foreign Language Proficiency	1	1105	29.65	False	20.00	17.96	22.04
				True	29.26	24.03	34.48
IA&P – Cultural and National Self-Awareness	1	1105	14.33	False	5.70	5.51	5.89
				True	6.31	5.82	6.80
IB – Academic Involvement	1	1105	34.11	False	5.65	5.45	5.86
				True	6.65	6.12	7.17
IB – Intercultural Curiosity and Involvement	1	1105	12.96	False	25.50	25.05	25.96
				True	26.86	25.70	28.01

Major: education and major: health, human, or medical sciences. Both majors were entered individually into MANOVAs with the DVs. While significant multivariate effects were found for these two majors, no corresponding univariate effects were found.

Summary of univariate effects for academic variables. Only one significant univariate effect was found for GPA, favouring those in the highest quartile over all others on International Knowledge. For course of study/major, students from three groups of majors showed significant differences from students not enrolled in those majors. The effects were negative for business, economics, or hospitality students on IA&P – Cultural and National Self-Awareness and for engineering, aviation, IT, or mathematics students on IA&P - Cultural Pluralism and IB - Intercultural Curiosity and Involvement. The effects for humanities, communication, journalism, or foreign languages students were positive on Foreign Language Proficiency and three affective subscales. There were no significant univariate effects for the remaining majors for which significant multivariate effects were found.

Univariate Effects: Political Beliefs and Religion

Political beliefs. Significant univariate effects were found for political beliefs on all scales except Foreign Language Proficiency (see Table 42). Pairwise comparisons

Table 42

Significant Univariate Effects for Political Beliefs (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Political beliefs	Means	99.9% confidence interval	
						Lower bound	Upper bound
Knowledge of a Specific Region or Country	4	1101	12.14	Far-left or left of centre	7.15	5.73	8.58
				Centre	6.12	4.39	7.86
				Far-right or right of centre	5.73	3.85	7.60
				Other	8.12	4.82	11.42
				Not interested/knowledgeable	3.31	1.89	4.73
International Knowledge	4	1101	30.90	Far-left or left of centre	.56	.53	.59
				Centre	.53	.49	.56
				Far-right or right of centre	.51	.47	.55
				Other	.58	.51	.65
				Not interested/knowledgeable	.43	.40	.46
IA&P – Global Interdependence and Cooperation	4	1101	31.84	Far-left or left of centre	35.38	34.43	36.33
				Centre	33.71	32.56	34.87
				Far-right or right of centre	30.95	29.70	32.19
				Other	34.38	32.19	36.58
				Not interested/knowledgeable	31.65	30.71	32.60
IA&P – Cultural Pluralism	4	1101	9.11	Far-left or left of centre	16.15	15.65	16.65
				Centre	15.93	15.32	16.54
				Far-right or right of centre	15.13	14.47	15.79
				Other	16.58	15.43	17.74
				Not interested/knowledgeable	15.19	14.69	15.69
IA&P – Cultural and National Self-Awareness	4	1101	9.11	Far-left or left of centre	6.43	6.11	6.76
				Centre	5.68	5.29	6.07
				Far-right or right of centre	5.03	4.61	5.45
				Other	6.52	5.78	7.26
				Not interested/knowledgeable	5.52	5.20	5.84
CC Skills – Intercultural Communication and Teamwork	4	1101	9.88	Far-left or left of centre	22.77	22.16	23.37
				Centre	22.31	21.57	23.05
				Far-right or right of centre	21.69	20.89	22.49
				Other	23.03	21.63	24.44
				Not interested/knowledgeable	21.33	20.72	21.93
CC Skills – Intercultural Friendship	4	1101	4.66	Far-left or left of centre	16.16	15.57	16.74
				Centre	15.71	14.99	16.42
				Far-right or right of centre	15.61	14.84	16.38
				Other	16.53	15.18	17.89
				Not interested/knowledgeable	15.21	14.63	15.79
CC Skills – Behavioural Flexibility	4	1101	4.44	Far-left or left of centre	12.02	11.67	12.37
				Centre	11.80	11.38	12.22
				Far-right or right of centre	11.58	11.13	12.04
				Other	11.90	11.10	12.70
				Not interested/knowledgeable	11.43	11.08	11.77
IB – Academic Involvement	4	1101	13.07	Far-left or left of centre	6.08	5.73	6.44
				Centre	5.97	5.54	6.40
				Far-right or right of centre	5.91	5.45	6.37
				Other	6.47	5.66	7.28
				Not interested/knowledgeable	5.17	4.82	5.52
IB – Intercultural Curiosity and Involvement	4	1101	19.75	Far-left or left of centre	26.93	26.17	27.70
				Centre	26.17	25.24	27.09
				Far-right or right of centre	24.88	23.88	25.88
				Other	26.97	25.20	28.73
				Not interested/knowledgeable	24.34	23.58	25.10

				Far-left or left of centre	6.13	5.80	6.46
				Centre	6.03	5.63	6.43
IB – Charitable Involvement	4	1101	5.05	Far-right or right of centre	5.88	5.44	6.31
				Other	6.10	5.34	6.86
				Not interested/knowledgeable	5.54	5.21	5.87
				Far-left or left of centre	15.12	14.65	15.58
				Centre	14.39	13.82	14.96
IB – Political Involvement	4	1101	71.77	Far-right or right of centre	13.59	12.97	14.20
				Other	14.37	13.29	15.45
				Not interested/knowledgeable	11.88	11.41	12.35

revealed that for the scales of Knowledge of a Specific Region or Country and IB – Academic Involvement, those who were not interested in or knowledgeable about politics scored significantly lower than all the other groups. On the scales of International Knowledge and IB – Political Involvement, those who were not interested in or knowledgeable about politics scored significantly lower than all other groups, and those whose beliefs were far-right or right of centre scored significantly lower than those on the far-left or left of centre. On the scale of IA&P – Global Interdependence and Cooperation, those on the left scored significantly higher than all other groups except other, and those on the right or in the not interested/knowledgeable group scored significantly lower than all other groups, except one another. On the scale of IA&P – Cultural Pluralism, those on the left and others scored significantly higher than those on the right and the not interested/knowledgeable. On the scale of IA&P – Cultural and National Self-Awareness, those on the left and others scored significantly higher than all groups except one another, and those in the Centre scored significantly higher than those on the right. On the scale of CC Skills – Intercultural Communication and Teamwork, all groups scored significantly higher than the not interested/knowledgeable except those on the right, and those on the left scored significantly higher than those on the right. On the scales of CC Skills – Intercultural Friendship, CC Skills – Behavioural Flexibility, and IB – Charitable Involvement, those on the left scored significantly higher than the not interested/knowledgeable. On the scale of IB – Intercultural Curiosity and Involvement, those on the left and others scored significantly higher than those on the right and the not interested/knowledgeable and those in the centre scored significantly higher than the not interested/knowledgeable.

Religion. Religion was entered into a MANOVA with the DVs and significant univariate effects were found on three scales and five subscales (see Table 43). Examination of pairwise comparisons showed that on the scale of Foreign Language Proficiency, Catholic or Orthodox Christians and others scored significantly higher than the non-religious, and others scored significantly higher than Protestant Christians

Table 43

Significant Univariate Effects for Religion (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Religion	Means	99.9% confidence interval Lower bound	Upper Bound
Foreign Language Proficiency	3	1101	13.96	Christian: Catholic or Orthodox	24.13	20.56	27.71
				Christian: Protestant	19.39	15.99	22.79
				Other	31.37	24.40	38.33
				Non-religious/secular/ atheist/agnostic	18.33	15.05	21.62
Knowledge of a Specific Region or Country	3	1101	6.73	Christian: Catholic or Orthodox	5.86	4.40	7.33
				Christian: Protestant	5.05	3.66	6.44
				Other	9.18	6.33	12.04
				Non-religious/secular/ atheist/agnostic	5.19	3.84	6.53
International Knowledge	3	1101	12.98	Christian: Catholic or Orthodox	.47	.43	.50
				Christian: Protestant	.50	.47	.53
				Other	.54	.47	.60
				Non-religious/secular/ atheist/agnostic	.55	.52	.58
IA&P – Global Interdependence and Cooperation	3	1101	10.08	Christian: Catholic or Orthodox	32.80	31.80	33.81
				Christian: Protestant	32.21	31.25	33.17
				Other	35.16	33.20	37.12
				Non-religious/secular/ atheist/agnostic	33.89	32.96	34.81
IA&P – Cultural and National Self-Awareness	3	1101	18.69	Christian: Catholic or Orthodox	5.61	5.27	5.94
				Christian: Protestant	5.35	5.03	5.66
				Other	6.54	5.89	7.18
				Non-religious/secular/ atheist/agnostic	6.17	5.86	6.47
CC Skills – Intercultural Friendship	3	1101	6.25	Christian: Catholic or Orthodox	15.19	14.59	15.78
				Christian: Protestant	15.81	15.24	16.37
				Other	16.78	15.63	17.94
				Non-religious/secular/ atheist/agnostic	15.84	15.30	16.39
IB – Charitable Involvement	3	1101	9.87	Christian: Catholic or Orthodox	5.99	5.66	6.33
				Christian: Protestant	5.90	5.58	6.22
				Other	6.78	6.13	7.43
				Non-religious/secular/ atheist/agnostic	5.62	5.32	5.93
IB – Political Involvement	3	1101	8.07	Christian: Catholic or Orthodox	13.47	12.95	14.00
				Christian: Protestant	13.32	12.82	13.82
				Other	14.44	13.42	15.46
				Non-religious/secular/ atheist/agnostic	14.17	13.69	14.65

(including Evangelicals). On the scales of Knowledge of a Specific Region or Country and IB – Charitable Involvement, others scored significantly higher than all the other groups. On the scale of International Knowledge, the non-religious scored significantly

higher than both Christian groups. On the scale of IA&P – Global Interdependence and Cooperation, others scored significantly higher than both Christian groups and the non-religious scored significantly higher than Protestant Christians. On the scale of IA&P – Cultural and National Self-Awareness, others and the non-religious scored significantly higher than both Christian groups. On the scale of CC Skills – Intercultural Friendship, others scored significantly higher than Catholic or Orthodox Christians. On the scale of IB – Political Involvement, the non-religious scored significantly higher than Protestant Christians.

Frequency of attendance at religious services. Frequency of attendance at religious services was entered into a MANOVA with the DVs and significant univariate effects were found on one scale and one subscale (see Table 44). Pairwise comparisons

Table 44

Significant Univariate Effects for Frequency of Attendance at Religious Services (at p<*.001 level)*

Dependent variable	*df* *df* error	*F*	Frequency of attendance at religious services	Means	99.9% confidence interval	
					Lower bound	Upper bound
Foreign Language Proficiency	3 1103	6.71	Rarely or never	19.12	16.64	21.60
			A few times a year	23.73	19.38	28.09
			Every two weeks to once a month	24.34	17.55	31.13
			Once a week or more	25.26	19.97	30.54
IB – Charitable Involvement	3 1103	12.95	Rarely or never	5.69	5.46	5.92
			A few times a year	5.84	5.44	6.24
			Every two weeks to once a month	6.41	5.78	7.04
			Once a week or more	6.60	6.11	7.09

showed that for the scale of Foreign Language Proficiency, those who attended religious services once a week or more scored significantly higher than those who attended rarely or never. For the scale of IB – Charitable Involvement, those who attended religious services once a week or more scored significantly higher than those who attended a few times a year or rarely or never, and those who attended every two weeks to once a month scored significantly higher than those who attended rarely or never.

Summary of univariate effects for political beliefs and religion. Political beliefs were significant for all scales except Foreign Language Proficiency. On nine of the scales, the lowest scoring group was composed of those who were not interested in or knowledgeable about politics, and on the remaining three, those with right leaning political attitudes were the lowest. Generally, the lowest scoring group or groups were significantly different from either the left-leaning group, who had the highest score on four scales or the group with "other" political beliefs, who had the highest score on

eight scales. On two scales, there were also significant differences between those in the centre and the lowest scoring group or groups.

For the variable of religion, significant differences were found on three scales and five subscales. For seven of the scales, those from the other category had the highest scores and for one the non-religious had the highest score (although the non-religious despite not having the highest score on one other scale, was the group with significant differences). Generally, the group with the highest score showed significant differences with one or both Christian groups, and for two scales, others scored higher than all other groups. In addition, Catholic or Orthodox Christians had significantly greater foreign language skills than the non-religious. For frequency of attendance at religious services, those who attended more frequently scored significantly higher in their foreign language skills and charitable involvement.

Univariate Effects: News Media

How often international news was watched on TV or listened to on radio.

Significant univariate effects were found for the question of how often students watched international news on TV or listened to it on the radio on all scales except Foreign Language Proficiency (see Table 45). Pairwise comparisons showed that for the scale of Knowledge of a Specific Region or Country, all groups were significantly different from one another except rarely or never and occasionally. On the scales of International Knowledge and IA&P – Global Interdependence and Cooperation, all groups were significantly different from one another, except often and very often. On the scales of IA&P – Cultural Pluralism, CC Skills – Intercultural Communication and Teamwork, and IB – Charitable Involvement, all groups were significantly different from one another, except occasionally, which was only significantly different from very often. On the scales of IA&P – Cultural and National Self-Awareness and IB – Academic Involvement, rarely or never was significantly different from often and very often and occasionally was significantly different from very often. On the scale of CC Skills – Intercultural Friendship, all groups were significantly different from one another except occasionally and often. On the scale of CC Skills – Behavioural Flexibility, all groups were significantly different from one another except occasionally and often, and often and very often. On the scales of IB – Intercultural Curiosity and Involvement and IB – Political Involvement, all groups were significantly different. It should be noted that the particularly robust results for IB – Political Involvement can be attributed in large part to the fact that one of the questions in this subscale is "I consistently follow international news."

Table 45

Significant Univariate Effects for Frequency of Watching or Listening to International News (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	How often do you watch international news on TV or listen to it on the radio	Means	99.9% confidence interval Lower bound	Upper bound
Knowledge of a Specific Region or Country	3	1103	38.08	Rarely or never	3.03	1.50	4.56
				Occasionally	4.66	3.46	5.86
				Often	6.85	5.28	8.42
				Very often	10.52	8.58	12.46
International Knowledge	3	1103	57.39	Rarely or never	.42	.39	.46
				Occasionally	.49	.46	.52
				Often	.56	.53	.60
				Very often	.61	.57	.66
IA&P – Global Interdependence and Cooperation	3	1103	27.71	Rarely or never	31.19	30.13	32.26
				Occasionally	32.81	31.97	33.65
				Often	34.25	33.15	35.34
				Very often	35.54	34.19	36.89
IA&P – Cultural Pluralism	3	1103	20.06	Rarely or never	14.90	14.35	15.45
				Occasionally	15.53	15.10	15.96
				Often	15.93	15.37	16.49
				Very often	16.92	16.22	17.61
IA&P – Cultural and National Self-Awareness	3	1103	8.57	Rarely or never	5.43	5.06	5.79
				Occasionally	5.71	5.42	6.00
				Often	5.96	5.59	6.34
				Very often	6.27	5.81	6.73
CC Skills – Intercultural Communication and Teamwork	3	1103	26.38	Rarely or never	21.03	20.38	21.69
				Occasionally	21.85	21.33	22.36
				Often	22.52	21.84	23.19
				Very often	23.77	22.94	24.61
CC Skills – Intercultural Friendship	3	1103	29.08	Rarely or never	14.56	13.93	15.18
				Occasionally	15.56	15.07	16.05
				Often	16.19	15.55	16.83
				Very often	17.29	16.49	18.08
CC Skills – Behavioural Flexibility	3	1103	15.04	Rarely or never	11.17	10.79	11.55
				Occasionally	11.67	11.37	11.97
				Often	12.02	11.64	12.41
				Very often	12.29	11.81	12.77
IB – Academic Involvement	3	1103	17.28	Rarely or never	5.26	4.87	5.64
				Occasionally	5.70	5.40	6.00
				Often	5.98	5.58	6.38
				Very often	6.57	6.08	7.06
IB – Intercultural Curiosity and Involvement	3	1103	57.31	Rarely or never	23.73	22.92	24.54
				Occasionally	25.27	24.64	25.91
				Often	26.45	25.62	27.28
				Very often	28.71	27.69	29.74
IB – Charitable Involvement	3	1103	16.52	Rarely or never	5.43	5.07	5.79
				Occasionally	5.84	5.56	6.12
				Often	5.98	5.61	6.35
				Very often	6.66	6.20	7.12
IB – Political Involvement	3	1103	142.33	Rarely or never	11.78	11.28	12.27
				Occasionally	13.31	12.92	13.69
				Often	14.78	14.28	15.28
				Very often	16.36	15.74	16.98

Top two TV stations watched for international news. The file was split by country to examine this question, which was entered with the DVs into the MANOVA. For Australia, significant univariate effects were found for one scale and

nine subscales (see Table 46). Pairwise comparisons revealed that for the scales of International Knowledge, IA&P – Cultural Pluralism, IB – Academic Involvement, and

Table 46

Significant Univariate Effects for TV Stations Watched for International News – Australia (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Two top TV stations watched for international news - Australia	Means	99.9% confidence interval	
						Lower bound	Upper bound
International Knowledge	3	691	40.38	Public stations only	.59	.56	.63
				Commercial or other stations only	.44	.41	.47
				Public & commercial or other stations	.54	.50	.59
				None	.44	.34	.54
IA&P – Global Interdependence and Cooperation	3	691	35.87	Public stations only	35.41	34.37	36.45
				Commercial or other stations only	31.16	30.15	32.16
				Public & commercial or other stations	34.12	32.88	35.36
				None	30.72	27.73	33.71
IA&P – Cultural Pluralism	3	691	19.28	Public stations only	16.37	15.80	16.95
				Commercial or other stations only	14.63	14.07	15.18
				Public & commercial or other stations	15.63	14.95	16.32
				None	14.38	12.73	16.03
IA&P – Cultural and National Self-Awareness	3	691	22.51	Public stations only	6.33	5.95	6.70
				Commercial or other stations only	5.04	4.67	5.40
				Public & commercial or other stations	5.70	5.26	6.15
				None	5.41	4.33	6.50
CC Skills – Intercultural Communication and Teamwork	3	691	17.06	Public stations only	22.87	22.16	23.58
				Commercial or other stations only	20.83	20.14	21.52
				Public & commercial or other stations	22.23	21.38	23.07
				None	20.86	18.82	22.91
CC Skills – Intercultural Friendship	3	691	8.58	Public stations only	16.53	15.87	17.19
				Commercial or other stations only	15.15	14.51	15.79
				Public & commercial or other stations	16.05	15.26	16.84
				None	15.41	13.51	17.32
CC Skills – Behavioural Flexibility	3	691	7.99	Public stations only	12.20	11.80	12.59
				Commercial or other stations only	11.45	11.06	11.83
				Public & commercial or other stations	11.98	11.51	12.45
				None	11.28	10.14	12.41
IB – Academic Involvement	3	691	11.83	Public stations only	5.78	5.39	6.18
				Commercial or other stations only	4.91	4.53	5.29
				Public & commercial or other stations	5.57	5.10	6.04
				None	4.52	3.38	5.66
IB – Intercultural Curiosity and Involvement	3	691	29.13	Public stations only	27.20	26.33	28.06
				Commercial or other stations only	23.96	23.12	24.79
				Public & commercial or other stations	26.27	25.24	27.30
				None	24.24	21.76	26.73
IB – Political Involvement	3	691	57.47	Public stations only	14.89	14.35	15.43
				Commercial or other stations only	12.30	11.78	12.82
				Public & commercial or other stations	14.31	13.67	14.95
				None	11.10	9.55	12.66

IB – Intercultural Curiosity and Involvement, those who watched only public stations scored significantly higher than those who watched only commercial and other stations or none at all. In addition, those who watched a mix of public and commercial or other stations scored significantly higher than those who watched only commercial or other stations. On the scales of IA&P – Global Interdependence and Cooperation and IB – Political Involvement, those who watched only public stations or a combination of public and commercial or other stations scored significantly higher than those who watched commercial or other stations or none. On the scale of IA&P – Cultural and National Self-Awareness, those who watched only public stations scored significantly higher than the other two groups who watched the news, and those who watched a combination of public and commercial stations scored significantly higher than those who watched only commercial or other stations. On the scale of CC Skills – Intercultural Communication and Teamwork, those who watched only public stations or a combination of public and commercial or other stations scored significantly higher than those who watched commercial or other stations. On the scales of CC Skills – Intercultural Friendship and CC Skills – Behavioural Flexibility, those who watched only public stations scored significantly higher than those who watched only commercial or other stations.

For the U.S. students, significant univariate results for the top two stations watched for international news were found on two scales and six subscales (see Table 47). Pairwise comparisons showed that for the scale of Knowledge of a Specific Region or Country, those who watched public television news only or in combination with any other type of station scored significantly higher than all other groups except those that watched the cable stations CNN or MSNBC (or plus network or other stations). On the scale of International Knowledge, those who watched public television news scored significantly higher than all other groups except none. On the scale of IA&P – Global Interdependence and Cooperation, those who watched public television news scored significantly higher than those who watched network news (or plus other stations). In addition, those who watched public television news or CNN or MSNBC (or plus network or other news) scored significantly higher than those who watched Fox News (or plus network, cable, or other stations). On the scales of IA&P – Cultural Pluralism and IA&P – Cultural and National Self-Awareness, those who watched public television news scored significantly higher than those who watched no news or those who watched Fox News (or plus network, cable, or other news). On the scales of CC Skills –

Table 47

Significant Univariate Effects for TV Stations Watched for International News – U.S. (at p<.001 level)

Dependent variable	*df*	*df* error	*F*	Two top TV stations watched for international news – U.S.	Means	99.9% confidence interval	
						Lower bound	Upper bound
Knowledge of a Specific Region or Country	4	375	6.63	Network (or + other)	4.26	.60	7.92
				Public (or + other, network, or cable)	10.35	7.44	13.27
				CNN, MSNBC (or + network or other)	7.39	4.83	9.96
				Fox News + network, cable, or other	5.90	3.28	8.51
				None	3.92	-1.46	9.30
International Knowledge	4	375	10.32	Network (or + other)	.41	.33	.49
				Public (or + other, network, or cable)	.59	.52	.65
				CNN, MSNBC (or + network or other)	.48	.43	.54
				Fox News + network, cable, or other	.47	.41	.52
				None	.52	.41	.63
IA&P – Global Interdependence and Cooperation	4	375	6.94	Network (or + other)	31.41	28.86	33.96
				Public (or + other, network, or cable)	35.00	32.97	37.03
				CNN, MSNBC (or + network or other)	33.89	32.10	35.68
				Fox News + network, cable, or other	31.33	29.51	33.15
				None	31.96	28.21	35.71
IA&P – Cultural Pluralism	4	375	5.37	Network (or + other)	15.63	14.44	16.82
				Public (or + other, network, or cable)	16.97	16.01	17.92
				CNN, MSNBC (or + network or other)	16.29	15.45	17.13
				Fox News + network, cable, or other	15.62	14.77	16.48
				None	14.72	12.96	16.48
IA&P – Cultural and National Self-Awareness	4	375	8.14	Network (or + other)	5.87	5.11	6.63
				Public (or + other, network, or cable)	6.74	6.14	7.34
				CNN, MSNBC (or + network or other)	6.23	5.70	6.76
				Fox News + network, cable, or other	5.51	4.97	6.05
				None	5.28	4.17	6.39
CC Skills – Intercultural Friendship	4	375	6.07	Network (or + other)	13.96	12.53	15.39
				Public (or + other, network, or cable)	16.60	15.46	17.74
				CNN, MSNBC (or + network or other)	15.33	14.33	16.33
				Fox News + network, cable, or other	15.59	14.57	16.62
				None	14.88	12.78	16.98
IB – Intercultural Curiosity and Involvement	4	375	7.29	Network (or + other)	24.52	22.65	26.39
				Public (or + other, network, or cable)	27.67	26.18	29.16
				CNN, MSNBC (or + network or other)	25.66	24.35	26.98
				Fox News + network, cable, or other	25.11	23.78	26.45
				None	24.16	21.41	26.91
IB – Political Involvement	4	375	9.18	Network (or + other)	13.00	11.76	14.24
				Public (or + other, network, or cable)	15.40	14.42	16.39
				CNN, MSNBC (or + network or other)	13.96	13.09	14.82
				Fox News + network, cable, or other	13.68	12.80	14.56
				None	12.68	10.86	14.50

Intercultural Communication and Teamwork and CC Skills – Intercultural Friendship, those who watched public television news scored significantly higher than those who watched network news (or plus other stations). On the scales of IB – Intercultural Curiosity and Involvement and IB – Political Involvement, those who watched public television news scored significantly higher than all other groups.

How often international news was read. The question of how often students read international news in a newspaper, magazine, or on the internet was entered into the MANOVA with the DVs. Significant univariate effects were found for all scales except Foreign Language Proficiency (see Table 48). Pairwise comparisons showed that for the scale of Knowledge of a Specific Region or Country, often or very often was significantly different from all other groups, and occasionally was also significantly different from never. On the scales of International Knowledge and IA&P – Global Interdependence and Cooperation, all groups were significantly different from one another except rarely and never. On the scales of IA&P – Cultural Pluralism and IB – Charitable Involvement, all scales were significantly different from one another except rarely and never, and occasionally and often or very often. On the scale of IA&P – Cultural and National Self-Awareness, never was significantly different from occasionally and often or very often, and rarely was significantly different from often or very often. On the scales of CC Skills – Intercultural Communication and Teamwork, IB – Behavioural Flexibility, and IB – Academic Involvement, never was significantly different from occasionally and often or very often, and rarely was significantly different from often or very often. On the scale of CC Skills – Intercultural Friendship, rarely and never were significantly different from occasionally and often or very often. On the scale of IB – Political Involvement, all groups were significantly different from one another. It should be noted that the particularly robust results for IB – Political Involvement can be attributed in large part to the fact that one of the questions in this subscale is "I consistently follow international news."

Summary of univariate effects for news media. For the two variables relating to the viewing, listening, or reading of international news media, scores increased steadily with greater international news exposure, with significant findings on all scales except Foreign Language Proficiency. In addition, significantly higher scores on one scale and nine subscales were found for Australians who watched some or all public television stations for their international news. For Americans, significant results were found on two scales and six subscales for TV stations watched for international news. On all scales, those who watched some or all public television news had the highest scores, and

Table 48

Significant Univariate Effects for Frequency of Reading International News (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Frequency of reading international news	Means	99.9% confidence interval Lower bound	Upper bound
Knowledge of a Specific Region or Country	3	1103	38.90	Never	2.52	.65	4.39
				Rarely	4.17	2.81	5.52
				Occasionally	5.66	4.31	7.00
				Often or very often	9.67	8.12	11.22
International Knowledge	3	1103	55.93	Never	.42	.38	.46
				Rarely	.46	.43	.49
				Occasionally	.52	.49	.55
				Often or very often	.61	.58	.64
IA&P – Global Interdependence and Cooperation	3	1103	31.38	Never	31.06	29.76	32.36
				Rarely	31.96	31.01	32.90
				Occasionally	33.80	32.86	34.73
				Often or very often	35.30	34.22	36.38
IA&P – Cultural Pluralism	3	1103	15.48	Never	14.82	14.15	15.49
				Rarely	15.28	14.79	15.77
				Occasionally	15.98	15.50	16.47
				Often or very often	16.38	15.82	16.93
IA&P – Cultural and National Self-Awareness	3	1103	11.34	Never	5.27	4.82	5.71
				Rarely	5.59	5.27	5.92
				Occasionally	5.93	5.61	6.25
				Often or very often	6.19	5.82	6.56
CC Skills – Intercultural Communication and Teamwork	3	1103	13.03	Never	21.26	20.44	22.08
				Rarely	21.61	21.01	22.20
				Occasionally	22.32	21.73	22.91
				Often or very often	22.99	22.31	23.67
CC Skills – Intercultural Friendship	3	1103	18.86	Never	14.65	13.88	15.43
				Rarely	15.18	14.62	15.74
				Occasionally	16.15	15.60	16.71
				Often or very often	16.58	15.94	17.22
CC Skills – Behavioural Flexibility	3	1103	8.09	Never	11.27	10.80	11.73
				Rarely	11.55	11.21	11.88
				Occasionally	11.87	11.54	12.21
				Often or very often	12.07	11.68	12.46
IB – Academic Involvement	3	1103	15.04	Never	5.14	4.66	5.61
				Rarely	5.59	5.24	5.93
				Occasionally	5.92	5.58	6.26
				Often or very often	6.31	5.92	6.71
IB – Intercultural Curiosity and Involvement	3	1103	41.12	Never	23.71	22.70	24.72
				Rarely	24.70	23.97	25.43
				Occasionally	26.24	25.52	26.97
				Often or very often	27.57	26.74	28.41
IB – Charitable Involvement	3	1103	14.25	Never	5.38	4.93	5.82
				Rarely	5.63	5.31	5.95
				Occasionally	6.09	5.77	6.41
				Often or very often	6.34	5.98	6.71
IB – Political Involvement	3	1103	102.98	Never	11.92	11.30	12.55
				Rarely	12.93	12.47	13.38
				Occasionally	13.85	13.40	14.30
				Often or very often	15.86	15.34	16.37

on all but one scale, the second highest scores were obtained by those who watched the

cable news channels CNN or MSNBC. The lowest scores were obtained by those who watched no news on five scales, Fox News on two scales, and network news on one scale. Significant differences were generally found between the highest group or groups and the lowest group or groups.

Univariate Effects: Internationalisation Variables

International major. International major was entered into a MANOVA with the DVs. Significant univariate effects were found for international major on two scales and six subscales such that those with an international major had significantly higher scores on all scales (see Table 49).

Table 49

Significant Univariate Effects for International Major (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	International major	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	1	1105	25.49	Yes	26.08	22.38	29.78
				No	19.47	17.25	21.70
Knowledge of a Specific Region or Country	1	1105	44.39	Yes	8.21	6.72	9.71
				No	4.70	3.81	5.60
IA&P – Global Interdependence and Cooperation	1	1105	32.42	Yes	34.68	33.65	35.71
				No	32.60	31.98	33.22
IA&P – Cultural Pluralism	1	1105	27.90	Yes	16.40	15.87	16.92
				No	15.42	15.10	15.73
CC Skills – Intercultural Communication and Teamwork	1	1105	28.98	Yes	22.98	22.34	23.62
				No	21.77	21.39	22.15
IB – Academic Involvement	1	1105	115.79	Yes	6.78	6.43	7.14
				No	5.43	5.21	5.64
IB – Intercultural Curiosity and Involvement	1	1105	34.32	Yes	26.92	26.11	27.73
				No	25.24	24.75	25.72
IB – Political Involvement	1	1105	29.58	Yes	14.49	13.95	15.03
				No	13.45	13.13	13.78

Courses with primarily international content. Courses with primarily international content was entered into the MANOVA with the DVs. Significant univariate effects were found on three scales and eight subscales (see Table 50). Pairwise comparisons revealed that for the scales of Knowledge of a Specific Region or Country, CC Skills – Intercultural Communication and Teamwork, CC Skills – Intercultural Friendship, and IB – Intercultural Curiosity and Involvement, those who had taken three or more courses with primarily international content scored significantly higher than the other two groups. For the scales of Foreign Language Proficiency, International Knowledge, IA&P – Global Interdependence and Cooperation, IA&P – Cultural Pluralism, and CC Skills – Behavioural Flexibility, those who had taken three

Table 50

Significant Univariate Effects for Courses with Primarily International Content (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Courses with primarily international content	Means	99.9% confidence interval Lower bound	Upper bound
Foreign Language Proficiency	2	1104	9.42	0	19.12	16.54	21.69
				1-2	22.71	19.02	26.40
				3 or more	25.52	20.99	30.04
Knowledge of a Specific Region or Country	2	1104	25.34	0	4.40	3.37	5.44
				1-2	6.02	4.54	7.49
				3 or more	8.86	7.05	10.67
International Knowledge	2	1104	8.43	0	.49	.47	.52
				1-2	.51	.48	.55
				3 or more	.55	.51	.59
IA&P – Global Interdependence and Cooperation	2	1104	8.01	0	32.70	31.98	33.43
				1-2	33.21	32.17	34.24
				3 or more	34.47	33.20	35.74
IA&P – Cultural Pluralism	2	1104	9.40	0	15.39	15.03	15.76
				1-2	15.82	15.30	16.34
				3 or more	16.33	15.69	16.98
CC Skills – Intercultural Communication and Teamwork	2	1104	19.59	0	21.68	21.25	22.12
				1-2	22.07	21.45	22.70
				3 or more	23.37	22.60	24.14
CC Skills – Intercultural Friendship	2	1104	7.89	0	15.53	15.11	15.96
				1-2	15.56	14.95	16.17
				3 or more	16.53	15.79	17.27
CC Skills – Behavioural Flexibility	2	1104	6.90	0	11.61	11.36	11.86
				1-2	11.65	11.29	12.02
				3 or more	12.17	11.73	12.61
IB – Academic Involvement	2	1104	78.29	0	5.25	5.00	5.49
				1-2	6.05	5.70	6.40
				3 or more	7.06	6.63	7.49
IB – Intercultural Curiosity and Involvement	2	1104	16.75	0	25.17	24.61	25.73
				1-2	25.75	24.94	26.55
				3 or more	27.16	26.17	28.15
IB – Political Involvement	2	1104	27.10	0	13.24	12.87	13.61
				1-2	13.97	13.44	14.50
				3 or more	14.86	14.21	15.52

or more international courses scored significantly higher than those who had taken none at all. For the scales of IB – Academic Involvement and IB – Political Involvement, there were significant differences between all groups. Note that the particularly robust results for IB – Academic Involvement is likely due in large part to the question in this subscale: "I have made it a priority to enrol in classes that cover international issues."

Courses with some international content. Courses with some international content was entered into the MANOVA with the DVs and significant univariate effects

were found on all the scales and subscales except IB – Charitable Involvement (see Table 51). Pairwise comparisons revealed that for the scales of Foreign Language Proficiency, IA&P – Global Interdependence and Cooperation, and IA&P – Cultural Pluralism, those who had taken no courses with any international content scored

Table 51

Significant Univariate Effects for Courses with Some International Content (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Courses with some international content	Means	99.9% confidence interval Lower bound	Upper bound
Foreign Language Proficiency	2	1103	12.98	0	18.87	16.43	21.31
				1-3	24.65	21.15	28.16
				4 or more	25.66	19.37	31.94
Knowledge of a Specific Region or Country	2	1103	41.40	0	4.27	3.31	5.24
				1-3	6.69	5.30	8.08
				4 or more	11.23	8.74	13.72
International Knowledge	2	1103	15.21	0	.49	.47	.51
				1-3	.52	.48	.55
				4 or more	.59	.54	.65
IA&P – Global Interdependence and Cooperation	2	1103	17.86	0	32.46	31.79	33.14
				1-3	33.84	32.86	34.82
				4 or more	35.47	33.72	37.22
IA&P – Cultural Pluralism	2	1103	18.35	0	15.32	14.97	15.66
				1-3	16.06	15.57	16.56
				4 or more	16.82	15.94	17.71
IA&P – Cultural and National Self-Awareness	2	1103	10.32	0	5.59	5.36	5.82
				1-3	6.07	5.74	6.40
				4 or more	6.16	5.57	6.74
CC Skills – Intercultural Communication and Teamwork	2	1103	19.70	0	21.67	21.25	22.08
				1-3	22.46	21.86	23.06
				4 or more	23.69	22.61	24.76
CC Skills – Intercultural Friendship	2	1103	11.41	0	15.41	15.00	15.81
				1-3	16.00	15.42	16.58
				4 or more	16.87	15.84	17.91
CC Skills – Behavioural Flexibility	2	1103	9.96	0	11.58	11.34	11.82
				1-3	11.79	11.45	12.13
				4 or more	12.46	11.85	13.08
IB – Academic Involvement	2	1103	62.71	0	5.34	5.11	5.57
				1-3	6.23	5.90	6.57
				4 or more	7.28	6.67	7.88
IB – Intercultural Curiosity and Involvement	2	1103	31.91	0	25.00	24.47	25.52
				1-3	26.28	25.52	27.04
				4 or more	28.24	26.88	29.59
IB – Political Involvement	2	1103	45.61	0	13.17	12.82	13.52
				1-3	14.28	13.78	14.78
				4 or more	15.64	14.74	16.53

significantly lower than both other groups. On the scales of Knowledge of a Specific Region or Country, CC Skills – Intercultural Communication and Teamwork, IB – Academic Involvement, IB – Intercultural Curiosity and Involvement, and IB – Political Involvement, there were significant differences between all groups. Note that the particularly robust results for IB – Academic Involvement is likely due in large part to the question in this subscale: "I have made it a priority to enrol in classes that cover international issues." On the scale of International Knowledge, those who had taken four or more courses with international content scored significantly higher than both other groups. On the scale of IA&P – Cultural and National Self-Awareness, those who had taken no courses with any international content scored significantly lower than those who had taken one to three courses. On the scales of CC Skills – Intercultural Friendship and CC Skills – Behavioural Flexibility, those who had taken no courses with any international content scored significantly lower than those who had taken four or more courses.

Group projects with international students. Group projects with international students was entered into a MANOVA the DVs. Significant univariate effects were found on two scales and six subscales (see Table 52) such that those who had

Table 52

Significant Univariate Effects for Group Projects with International Students (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Participated in group projects with international students	Means	99.9% confidence interval	
						Lower bound	Upper bound
Knowledge of a Specific Region or Country	1	1105	26.41	Yes	6.44	5.51	7.37
				No	3.82	2.42	5.22
International Knowledge	1	1105	34.02	Yes	.53	.51	.55
				No	.46	.43	.49
IA&P – Global Interdependence and Cooperation	1	1105	11.58	Yes	33.52	32.88	34.17
				No	32.32	31.35	33.29
CC Skills – Intercultural Communication and Teamwork	1	1105	38.61	Yes	22.50	22.11	22.89
				No	21.17	20.58	21.76
CC Skills – Intercultural Friendship	1	1105	25.97	Yes	16.04	15.66	16.42
				No	14.99	14.43	15.56
CC Skills – Behavioural Flexibility	1	1105	12.94	Yes	11.86	11.63	12.08
				No	11.42	11.08	11.75
IB - Intercultural Curiosity and Involvement	1	1105	24.69	Yes	26.10	25.60	26.61
				No	24.73	23.97	25.49
IB – Political Involvement	1	1105	24.05	Yes	14.00	13.67	14.34
				No	13.10	12.60	13.61

participated in group projects with international students scored significantly higher than those who had not.

Number of international friends. Significant univariate effects were found for number of international friends on all scales except International Knowledge (see Table 53). Pairwise comparisons revealed that for the scales of Foreign Language Proficiency, Knowledge of a Specific Region or Country, CC Skills – Behavioural Flexibility, and IB – Academic Involvement, those with five or more friends from another country or foreign culture scored significantly higher than all the other groups. On the scale of IA&P – Global Interdependence and Cooperation, those with five or more international friends scored significantly higher than those with two or fewer friends. Those with three to four also scored significantly higher than those with none or only acquaintances. On the scales of IA&P – Cultural Pluralism and CC Skills – Intercultural Communication and Teamwork, those with five or more international friends scored significantly higher than all other groups and those with three to four scored significantly higher than those with none/acquaintances only. On the scale of IA&P – Cultural and National Self-Awareness, the only difference was between those who had five or more international friends and those who had none. On the scale of IB – Charitable Involvement, those with five or more friends scored significantly higher than those with none/acquaintances only. On the scale of CC Skills – Intercultural Friendship, all groups were significantly different. Note that because the factor CC Skills – Intercultural Friendship dealt with ability to make friends with people from other countries, it represents significant overlap with this question, which explains the extremely robust results. On the scale of IB – Intercultural Curiosity and Involvement, all the groups were significantly different except none/acquaintances only and one to two. On the scale of IB – Political Involvement, those who had five or more friends scored significantly higher than those with two or fewer.

Dated someone from another country. Dated someone from another country was entered into a MANOVA with the DVs. Significant univariate effects were found showing that those who had dated someone from another country scored significantly higher on two scales and eight subscales than those who had not (see Table 54).

Number of international events attended in the previous year. Number of international events attended in the previous year was entered into a MANOVA with the DVs. Significant univariate effects were found on all scales (see Table 55). Pairwise

Table 53

Significant Univariate Effects for Number of International Friends (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Number of international friends	Means	99.9% confidence interval Lower bound	Upper bound
Foreign Language Proficiency	3	1102	22.84	0/some acquaintances; no friends	17.24	12.18	22.29
				1-2	16.20	11.67	20.74
				3-4	16.20	11.83	20.56
				5 or more	25.87	23.24	28.50
Knowledge of a Specific Region or Country	3	1102	19.87	0/some acquaintances; no friends	3.85	1.79	5.91
				1-2	3.63	1.78	5.48
				3-4	4.00	2.22	5.78
				5 or more	7.40	6.33	8.47
IA&P – Global Interdependence and Cooperation	3	1102	15.90	0/some acquaintances; no friends	31.18	29.75	32.60
				1-2	32.01	30.73	33.29
				3-4	33.13	31.90	34.36
				5 or more	34.11	33.37	34.85
IA&P – Cultural Pluralism	3	1102	31.50	0/some acquaintances; no friends	14.45	13.75	15.16
				1-2	14.83	14.20	15.47
				3-4	15.44	14.83	16.05
				5 or more	16.39	16.02	16.76
IA&P – Cultural and National Self-Awareness	3	1102	6.42	0/some acquaintances; no friends	5.28	4.80	5.76
				1-2	5.66	5.23	6.09
				3-4	5.75	5.34	6.17
				5 or more	5.98	5.73	6.23
CC Skills – Intercultural Communication and Teamwork	3	1102	44.32	0/some acquaintances; no friends	20.24	19.39	21.08
				1-2	21.02	20.26	21.78
				3-4	21.72	20.99	22.45
				5 or more	23.09	22.65	23.54
CC Skills – Intercultural Friendship	3	1102	154.92	0/some acquaintances; no friends	12.15	11.44	12.87
				1-2	14.52	13.88	15.16
				3-4	15.63	15.01	16.25
				5 or more	17.13	16.76	17.51
CC Skills – Behavioural Flexibility		1102	18.82	0/some acquaintances; no friends	11.08	10.58	11.57
				1-2	11.35	10.91	11.79
				3-4	11.46	11.03	11.89
				5 or more	12.12	11.87	12.38
IB – Academic Involvement		1102	15.16	0/some acquaintances; no friends	5.32	4.81	5.83
				1-2	5.35	4.89	5.81
				3-4	5.51	5.06	5.95
				5 or more	6.17	5.90	6.43
IB – Intercultural Curiosity and Involvement		1102	65.69	0/some acquaintances; no friends	22.69	21.64	23.74
				1-2	24.01	23.07	24.95
				3-4	25.56	24.66	26.47
				5 or more	27.12	26.57	27.67
IB – Charitable Involvement	3	1102	13.53	0/some acquaintances; no friends	5.25	4.77	5.73
				1-2	5.67	5.25	6.10
				3-4	5.76	5.35	6.17
				5 or more	6.20	5.95	6.45
IB – Political Involvement	3	1102	11.44	0/some acquaintances; no friends	13.16	12.41	13.91
				1-2	12.99	12.32	13.66
				3-4	13.60	12.95	14.25
				5 or more	14.18	13.79	14.57

Table 54

Significant Univariate Effects for Dated Someone from Another Country (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Dated someone from another country	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	1	1105	39.11	Yes	26.26	23.00	29.52
				No	18.66	16.33	20.99
Knowledge of a Specific Region or Country	1	1105	45.01	Yes	7.82	6.50	9.14
				No	4.52	3.58	5.46
IA&P – Global Interdependence and Cooperation	1	1105	20.52	Yes	34.18	33.26	35.10
				No	32.63	31.97	33.29
IA&P – Cultural Pluralism	1	1105	21.95	Yes	16.21	15.75	16.68
				No	15.40	15.07	15.73
CC Skills – Intercultural Communication and Teamwork	1	1105	37.97	Yes	22.94	22.38	23.51
				No	21.66	21.25	22.06
CC Skills – Intercultural Friendship	1	1105	97.17	Yes	16.99	16.47	17.51
				No	15.07	14.70	15.44
CC Skills – Behavioural Flexibility	1	1105	32.93	Yes	12.17	11.86	12.49
				No	11.49	11.27	11.72
IB – Intercultural Curiosity and Involvement	1	1105	69.19	Yes	27.13	26.43	27.84
				No	24.94	24.44	25.45
IB – Charitable Involvement	1	1105	13.99	Yes	6.18	5.87	6.49
				No	5.75	5.53	5.97
IB – Political Involvement	1	1105	18.54	Yes	14.24	13.76	14.72
				No	13.47	13.12	13.81

comparisons revealed that for the scales of Foreign Language Proficiency, IB – Academic Involvement, and IB – Charitable Involvement, those who had attended four or more international events in the past year scored significantly higher than all the other groups, and those who had attended two to three scored significantly higher than those who had not attended any. For the scale of International Knowledge, those who had not attended any international events scored significantly lower than those who had attended two or more. On the scales of Knowledge of a Specific Region or Country, IA&P – Global Interdependence and Cooperation, IA&P – Cultural and National Self-Awareness, CC Skills – Intercultural Communication and Teamwork, and CC Skills – Intercultural Friendship, those who had attended four or more events scored significantly higher than those who had attended one or none and those who had attended two to three scored significantly higher than those who had not attended any. On the scale of IA&P – Cultural Pluralism, those who had attended no events scored significantly lower than all other groups. On the scale of CC Skills – Behavioural Flexibility, those who had attended four or more scored significantly higher than all the

Table 55

Significant Univariate Effects for Number of International Events Attended in Previous Year (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Number of international events attended	Means	99.9% confidence interval Lower bound	Upper bound
Foreign Language Proficiency	3	1103	23.44	0	17.47	14.91	20.03
				1	22.60	18.08	27.11
				2-3	24.64	20.39	28.89
				4 or more	32.45	26.51	38.39
Knowledge of a Specific Region or Country	3	1103	30.53	0	3.90	2.87	4.93
				1	5.82	4.00	7.64
				2-3	7.80	6.09	9.51
				4 or more	10.40	8.01	12.79
International Knowledge	3	1103	7.67	0	.49	.47	.51
				1	.50	.46	.54
				2-3	.54	.50	.58
				4 or more	.56	.51	.62
IA&P – Global Interdependence and Cooperation	3	1103	24.01	0	32.12	31.41	32.84
				1	33.14	31.88	34.41
				2-3	34.47	33.29	35.66
				4 or more	36.16	34.50	37.82
IA&P – Cultural Pluralism	3	1103	23.39	0	15.09	14.73	15.46
				1	15.95	15.31	16.59
				2-3	16.39	15.79	16.99
				4 or more	16.95	16.10	17.79
IA&P – Cultural and National Self-Awareness	3	1103	17.16	0	5.48	5.24	5.72
				1	5.89	5.47	6.31
				2-3	6.07	5.67	6.47
				4 or more	6.67	6.12	7.23
CC Skills – Intercultural Communication and Teamwork	3	1103	25.35	0	21.42	20.98	21.87
				1	22.13	21.36	22.91
				2-3	22.94	22.21	23.66
				4 or more	23.96	22.94	24.97
CC Skills – Intercultural Friendship	3	1103	25.33	0	15.08	14.66	15.50
				1	15.73	14.99	16.47
				2-3	16.62	15.93	17.32
				4 or more	17.39	16.42	18.36
CC Skills – Behavioural Flexibility	3	1103	9.88	0	11.59	11.34	11.84
				1	11.52	11.07	11.96
				2-3	11.83	11.41	12.25
				4 or more	12.59	12.00	13.18
IB – Academic Involvement	3	1103	36.19	0	5.34	5.09	5.60
				1	5.76	5.32	6.21
				2-3	6.35	5.94	6.77
				4 or more	7.10	6.52	7.69
IB – Intercultural Curiosity and Involvement	3	1103	53.14	0	24.47	23.93	25.02
				1	25.82	24.86	26.77
				2-3	27.22	26.32	28.12
				4 or more	28.95	27.69	30.20
IB – Charitable Involvement	3	1103	23.97	0	5.57	5.33	5.81
				1	5.89	5.46	6.30
				2-3	6.25	5.85	6.64
				4 or more	6.99	6.44	7.54
IB – Political Involvement	3	1103	30.10	0	13.11	12.74	13.48
				1	13.87	13.21	14.52
				2-3	14.39	13.77	15.00
				4 or more	15.52	14.66	16.38

other groups. On the scales of IB – Intercultural Curiosity and Involvement, all groups were significantly different. On the scale of IB – Political Involvement, all groups were significantly different except one and two to three.

Number of international lecturers or TAs. Number of international lecturers or TAs was entered into a MANOVA with the DVs. Significant univariate effects were found on two scales and five subscales (see Table 56). Pairwise comparisons revealed

Table 56

Significant Univariate Effects for Number of International Lecturers or TAs (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Number of international lecturers or TAs	Means	99.9% confidence interval	
						Lower bound	Upper bound
Knowledge of a Specific Region or Country	4	1099	9.63	0	4.28	2.38	6.18
				1	4.44	2.74	6.13
				2-3	5.20	3.88	6.51
				4-5	7.48	5.44	9.53
				6+	8.25	6.18	10.31
International Knowledge	4	1099	18.53	0	.45	.41	.49
				1	.49	.45	.53
				2-3	.49	.46	.52
				4-5	.56	.51	.60
				6+	.59	.54	.63
CC Skills – Intercultural Communication and Teamwork	4	1099	5.03	0	22.09	21.27	22.90
				1	21.40	20.68	22.12
				2-3	22.06	21.49	22.62
				4-5	22.41	21.54	23.29
				6+	22.88	22.00	23.76
CC Skills – Intercultural Friendship	4	1099	8.65	0	15.46	14.69	16.23
				1	15.11	14.43	15.80
				2-3	15.53	15.00	16.06
				4-5	16.34	15.51	17.17
				6+	16.77	15.94	17.61
IB – Academic Involvement	4	1099	6.73	0	5.49	5.02	5.96
				1	5.58	5.16	6.00
				2-3	5.66	5.33	5.98
				4-5	6.25	5.74	6.76
				6+	6.26	5.75	6.77
IB – Intercultural Curiosity and Involvement	4	1099	6.47	0	25.36	24.32	26.39
				1	24.84	23.91	25.76
				2-3	25.62	24.90	26.33
				4-5	26.29	25.18	27.41
				6+	26.87	25.75	27.99
IB – Political Involvement	4	1099	10.48	0	13.04	12.36	13.73
				1	13.40	12.79	14.01
				2-3	13.61	13.13	14.08
				4-5	14.25	13.51	14.99
				6+	14.77	14.03	15.52

that for the scale of Knowledge of a Specific Region or Country, those who had had six or more international lecturers or TAs during their university studies scored significantly higher than all the other groups except those who had had four to five, and those who had had four to five scored significantly higher than those who had had none or one. For the scale of International Knowledge, those who had had six or more international lecturers or TAs scored significantly higher than all the other groups except those who had had four to five, and those who had had four to five scored significantly higher than all the groups below them. On the scale of CC Skills – Intercultural Communication and Teamwork, the only significant difference was between those who had had six or more and those who had had one. On the scale of CC Skills – Intercultural Friendship, those who had had six or more international lecturers or TAs scored significantly higher than all other groups except four to five, and those who had had four to five scored significantly higher than those who had had one. On the scale of IB – Academic Involvement, those who had had more than four international lecturers or TAs scored significantly higher than those who had had zero or one. On the scale of IB – Intercultural Curiosity and Involvement, the only significant differences were between one and four or more. On the scale of IB – Political Involvement, those who had had six or more international lecturers or TAs scored significantly higher than all the other groups except those who had had four to five, and those who had had four to five scored significantly higher than those who had had none.

Study abroad. Study abroad was entered into a MANOVA with the DVs. Significant univariate effects were found for two scales and nine subscales such that those who had studied abroad scored significantly higher on all scales (see Table 57). This variable was also examined with the file split by whether a student had visited the country of the language they studied, in order to look at whether this caused them to temper their ratings of their foreign language skills, given they had actually put them to the test, as was found in Carlson et al. (1990). However, findings indicated that there were much higher scores in Foreign Language Proficiency for those who had visited the country of the language they had studied, so the effect found in Carlson et al. (1990) was not supported here.

Other travel abroad. Other travel abroad was entered into a MANOVA with the DVs. Significant univariate effects were found for two scales such that those who had travelled abroad scored significantly higher (see Table 58).

Table 57

Significant Univariate Effects for Study Abroad (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Study abroad	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	1	1098	114.36	Yes	33.21	29.07	37.35
				No	18.22	16.17	20.28
Knowledge of a Specific Region or Country	1	1098	112.46	Yes	10.43	8.75	12.11
				No	4.40	3.57	5.24
IA&P – Global Interdependence and Cooperation	1	1098	25.47	Yes	34.80	33.60	36.00
				No	32.75	32.16	33.35
IA&P – Cultural Pluralism	1	1098	17.84	Yes	16.37	15.76	16.98
				No	15.49	15.19	15.80
IA&P – Cultural and National Self-Awareness	1	1098	18.71	Yes	6.25	5.85	6.65
				No	5.66	5.46	5.86
CC Skills – Intercultural Communication and Teamwork	1	1098	27.57	Yes	23.14	22.40	23.88
				No	21.83	21.46	22.19
CC Skills – Intercultural Friendship	1	1098	32.14	Yes	16.79	16.09	17.49
				No	15.44	15.09	15.79
CC Skills – Behavioural Flexibility	1	1098	29.17	Yes	12.34	11.92	12.75
				No	11.57	11.36	11.78
IB – Academic Involvement	1	1098	38.12	Yes	6.49	6.06	6.91
				No	5.60	5.38	5.81
IB – Intercultural Curiosity and Involvement	1	1098	48.74	Yes	27.44	26.51	28.38
				No	25.23	24.77	25.70
IB – Political Involvement	1	1098	19.48	Yes	14.48	13.85	15.11
				No	13.54	13.23	13.85

Table 58

Significant Univariate Effects for Other Travel Abroad (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Other travel abroad	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	1	1101	29.96	Yes	23.58	21.22	25.93
				No	16.92	13.68	20.17
Knowledge of a Specific Region or Country	1	1101	43.52	Yes	6.78	5.82	7.73
				No	3.54	2.23	4.85

Age of other travel abroad. Only students who had travelled abroad for purposes other than study were selected and then MANOVAs were run for the different age groups in which they had travelled (0-4, 5-9, 10-13, 14-17, 18 and up). Only 18 and up was significant, with univariate effects on two scales and two subscales favouring those who had travelled abroad at age 18 or older (see Table 59). Note that some of those who had travelled abroad at age 18 or older may have travelled abroad at a younger age as well.

Table 59

Significant Univariate Effects for Other Travel Abroad: Ages 18 and Up (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Other travel: ages 18 and up	Means	99.9% confidence interval	
						Lower bound	Upper bound
Knowledge of a Specific Region or Country	1	719	12.21	Yes	7.82	6.40	9.24
				No	5.64	4.16	7.13
International Knowledge	1	719	35.13	Yes	.56	.53	.59
				No	.48	.45	.51
IB – Intercultural Curiosity and Involvement	1	719	10.97	Yes	26.70	25.98	27.41
				No	25.66	24.91	26.41
IB – Political Involvement	1	719	15.14	Yes	14.31	13.83	14.79
				No	13.49	12.99	13.99

Other travel abroad: number of trips abroad. Only students who had travelled abroad for purposes other than study were selected and then a MANOVA was run for number of trips abroad (for purposes other than study) and the DVs. Significant univariate effects were found for one scale and one subscale (see Table 60). Pairwise comparisons showed that for both scales, the only significant differences were between those who had taken only one trip abroad and those who had taken four or more trips.

Table 60

Significant Univariate Effects for Other Travel Abroad: Number of Trips (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Other travel abroad: number of trips	Means	99.9% confidence interval	
						Lower bound	Upper bound
Knowledge of a Specific Region or Country	3	717	6.78	1	5.34	3.61	7.06
				2	6.53	4.41	8.65
				3	6.68	3.91	9.46
				4 or more	8.85	6.92	10.79
IB – Intercultural Curiosity and Involvement	3	717	6.27	1	25.29	24.42	26.16
				2	26.61	25.54	27.68
				3	26.63	25.23	28.03
				4 or more	26.80	25.82	27.78

Purpose of other travel abroad. Only students who had travelled abroad for purposes other than study were selected and a MANOVA was run with purpose of other travel abroad and the DVs. Significant univariate results were found for two scales and six subscales (see Table 61). Pairwise comparisons revealed that for the scales of Foreign Language Proficiency, Knowledge of a Specific Region or Country, CC Skills – Intercultural Friendship, and IB – Intercultural Curiosity and Involvement, those who

Table 61

Significant Univariate Effects for Purpose of Other Travel Abroad (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Purpose of other travel abroad	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	2	718	26.65	Lived with family[a]	33.77	27.95	39.59
				Holidays or military	19.86	16.83	22.89
				Work or cultural exchange[b]	26.58	21.20	31.96
Knowledge of a Specific Region or Country	2	718	28.31	Lived with family[a]	9.64	7.23	12.06
				Holidays or military	5.04	3.78	6.29
				Work or cultural exchange[b]	9.82	7.59	12.05
IA&P – Global Interdependence and Cooperation	2	718	10.32	Lived with family[a]	34.44	32.86	36.02
				Holidays or military	32.77	31.95	33.59
				Work or cultural exchange[b]	34.76	33.31	36.22
CC Skills – Intercultural Communication and Teamwork	2	718	9.27	Lived with family[a]	22.80	21.82	23.78
				Holidays or military	21.99	21.48	22.50
				Work or cultural exchange[b]	23.26	22.35	24.16
CC Skills – Intercultural Friendship	2	718	18.28	Lived with family[a]	16.65	15.75	17.56
				Holidays or military	15.56	15.08	16.03
				Work or cultural exchange[b]	17.17	16.34	18.01
IB – Academic Involvement	2	718	8.94	Lived with family[a]	5.94	5.38	6.49
				Holidays or military	5.81	5.52	6.10
				Work or cultural exchange[b]	6.56	6.05	7.08
IB – Intercultural Curiosity and Involvement	2	718	23.10	Lived with family[a]	27.00	25.78	28.23
				Holidays or military	25.43	24.79	26.07
				Work or cultural exchange[b]	27.94	26.81	29.07
IB – Charitable Involvement	2	718	10.32	Lived with family[a]	6.16	5.62	6.71
				Holidays or military	5.75	5.47	6.03
				Work or cultural exchange[b]	6.51	6.01	7.02

[a]Or lived with family plus holidays or military. [b]Or work or cultural exchange plus lived with family, holidays, or military.

had travelled abroad for holidays or the military scored significantly lower than both of the other groups. On the scales of IA&P – Global Interdependence and Cooperation, CC Skills – Intercultural Communication and Teamwork, IB – Academic Involvement, and IB – Charitable Involvement, those who had travelled abroad for holidays or the military scored significantly lower than those who had travelled abroad for volunteer or paid work, an internship, or a cultural exchange.

Duration of other travel abroad. Only students who had travelled abroad for purposes other than study were selected and a MANOVA was run for duration of other travel abroad and the DVs. Significant univariate results were found for three scales and four subscales (see Table 62). Pairwise comparisons revealed that for the scale of Foreign Language Proficiency, those whose longest trip abroad lasted more than three years scored significantly higher than those whose longest trip was less than 10 weeks

Table 62

Significant Univariate Effects for Duration of Other Travel Abroad (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Duration of other travel abroad (longest trip)	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	4	716	9.10	3 weeks or fewer	20.16	16.46	23.86
				> 3 and < 10 weeks	21.91	16.91	26.91
				>10 weeks and <1 year	27.76	20.84	34.69
				>1 and <3 years	26.07	18.20	33.94
				>3 years	33.66	26.36	40.97
Knowledge of a Specific Region or Country	4	716	14.72	3 weeks or fewer	4.70	3.18	6.21
				> 3 and < 10 weeks	6.39	4.34	8.44
				>10 weeks and <1 year	9.00	6.16	11.84
				>1 and <3 years	8.84	5.62	12.06
				>3 years	11.46	8.47	14.46
International Knowledge	4	716	5.84	3 weeks or fewer	.50	.46	.53
				> 3 and < 10 weeks	.53	.48	.57
				>10 weeks and <1 year	.52	.46	.58
				>1 and <3 years	.61	.54	.68
				>3 years	.54	.47	.61
IA&P – Global Interdependence and Cooperation	4	716	6.19	3 weeks or fewer	32.47	31.48	33.46
				> 3 and < 10 weeks	33.66	32.32	34.99
				>10 weeks and <1 year	33.89	32.04	35.74
				>1 and <3 years	35.01	32.91	37.12
				>3 years	35.03	33.07	36.98
CC Skills – Intercultural Friendship	4	716	6.93	3 weeks or fewer	15.66	15.09	16.23
				> 3 and < 10 weeks	15.74	14.97	16.52
				>10 weeks and <1 year	16.35	15.28	17.42
				>1 and <3 years	17.48	16.26	18.70
				>3 years	16.81	15.68	17.94
CC Skills – Behavioural Flexibility	4	716	6.53	3 weeks or fewer	11.47	11.14	11.81
				> 3 and < 10 weeks	12.02	11.56	12.47
				>10 weeks and <1 year	12.15	11.52	12.78
				>1 and <3 years	12.26	11.55	12.98
				>3 years	12.29	11.62	12.95
IB – Intercultural Curiosity and Involvement	4	716	6.81	3 weeks or fewer	25.49	24.71	26.27
				> 3 and < 10 weeks	26.03	24.98	27.08
				>10 weeks and <1 year	26.65	25.19	28.11
				>1 and <3 years	27.70	26.04	29.35
				>3 years	27.53	25.99	29.07

long. On the scale of Knowledge of a Specific Region or Country, those whose longest trip abroad lasted more than three years scored significantly higher than those whose longest trip was less than 10 weeks long, and those whose longest trip was between 10 weeks and three years scored significantly higher than those whose longest trip lasted three weeks or fewer. On the scales of International Knowledge and CC Skills – Behavioural Flexibility, those whose longest trip lasted from one to three years scored significantly higher than those whose longest trip lasted three weeks or fewer. On the scales of IA&P – Global Interdependence and Cooperation and IB – Intercultural

Curiosity and Involvement, those whose longest trip was three weeks or fewer scored significantly lower than those whose longest trip was more than a year long. On the scale of CC Skills – Intercultural Friendship, those whose longest trip was between one and three years scored significantly higher than those whose longest trip was shorter than ten weeks.

Travel to a developing country. Only students who had been abroad for study or other travel were selected and then travel to a developing country and the DVs were entered into a MANOVA. Significant univariate effects were found on three scales and eight subscales such that those who had travelled to a developing country scored higher than those who had only travelled in the developed world (see Table 63).

Table 63

Significant Univariate Effects for Travel to a Developing Country (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Travelled to a developing country	Means	99.9% confidence interval	
						Lower bound	Upper bound
Foreign Language Proficiency	1	749	23.47	Yes	28.65	24.67	32.63
				No	21.29	18.23	24.35
Knowledge of a Specific Region or Country	1	749	41.93	Yes	9.31	7.70	10.92
				No	5.32	4.08	6.56
International Knowledge	1	749	12.53	Yes	.55	.52	.59
				No	.50	.48	.53
IA&P – Global Interdependence and Cooperation	1	749	13.32	Yes	34.41	33.35	35.46
				No	32.94	32.13	33.75
CC Skills – Intercultural Communication and Teamwork	1	749	14.63	Yes	23.01	22.37	23.66
				No	22.07	21.57	22.57
CC Skills – Intercultural Friendship	1	749	11.99	Yes	16.58	15.97	17.19
				No	15.77	15.30	16.24
CC Skills – Behavioural Flexibility	1	749	11.62	Yes	12.18	11.82	12.54
				No	11.71	11.44	11.99
IB – Academic Involvement	1	749	12.30	Yes	6.33	5.96	6.70
				No	5.84	5.55	6.12
IB – Intercultural Curiosity and Involvement	1	749	18.95	Yes	27.10	26.27	27.93
				No	25.72	25.09	26.36
IB – Charitable Involvement	1	749	14.34	Yes	6.30	5.94	6.66
				No	5.78	5.50	6.06
IB – Political Involvement	1	749	22.02	Yes	14.54	13.99	15.10
				No	13.54	13.12	13.97

Purpose of travel to a developing country. Only students who had travelled to a developing country were selected and then MANOVAs were run with the different purposes of that travel. Significant univariate effects were found on two scales

favouring those who had lived with their family in a developing country and on one scale favouring those who did *not* travel to a developing country for tourism or the military (see Table 64).

Table 64

Significant Univariate Effects for Purpose of Travel to a Developing Country (at p<*.001 level)*

Dependent variable	*df*	*df* error	*F*	Travelled for this purpose	Means	99.9% confidence interval	
						Lower bound	Upper bound
Purpose of travel: lived with family							
Foreign Language Proficiency	1	289	32.68	Yes	40.96	32.63	49.29
				No	24.49	19.76	29.22
Knowledge of a Specific Region or Country	1	289	25.50	Yes	13.78	10.34	17.21
				No	7.78	5.83	9.73
Purpose of travel: tourism or military							
Foreign Language Proficiency	1	289	19.17	Yes	25.42	20.61	30.23
				No	38.44	29.80	47.07

Summary of univariate effects for internationalisation variables. Significant univariate effects were found for all of the primary internationalisation variables for one or more scales, such that greater levels of international involvement were correlated with higher scores. For the three variables related to internationalisation of the curriculum (international major, courses with primarily international content, and courses with some international content), significant univariate effects were found for two of the knowledge scales (Foreign Language Proficiency and Knowledge of a Specific Region or Country) and six of the affective subscales (IA&P – Global Interdependence and Cooperation, IA&P – Cultural Pluralism, CC Skills – Intercultural Communication and Teamwork, IB – Academic Involvement, IB – Intercultural Curiosity and Involvement, and IB – Political Involvement). For both variables on international course content, significant effects were also found for the scale of International Knowledge, and the other two subscales of CC Skills. For courses with some international content, significant univariate effects were also found on the scale of IA&P – Cultural and National Self-Awareness. For the two course content variables, scores steadily increased as the number of international courses increased, although not every level demonstrated significant differences with the others.

For all four variables related to interaction with people from other countries (group projects with international students, number of international friends, dated someone from another country, and number of international lecturers or TAs), significant univariate effects were found on Knowledge of a Specific Region or

Country, CC Skills – Intercultural Communication and Teamwork, CC Skills – Intercultural Friendship, IB - Intercultural Curiosity and Involvement, and IB – Political Involvement. For the first three variables, which relate to interacting with peers, significant effects were also found for CC Skills – Behavioural Flexibility and IA&P – Global Interdependence and Cooperation. Those who had participated in group projects with international students or had greater numbers of international lecturers or TAs also had significantly higher scores on International Knowledge. Those who had more international friends or had dated internationally also had significantly higher scores on Foreign Language Proficiency, IA&P – Cultural Pluralism, and IB – Charitable Involvement. In addition, those with more international friends or international lecturers or TAs had significantly higher scores on IB – Academic Involvement, and those with more international friends had higher scores on IA&P – Cultural and National Self-Awareness. Significant differences within number of international friends did not appear between all levels, and for most scales only became evident for those who had three or more international friends. Effects found for number of international lecturers or TAs only became evident at the level of four to five or six or more international lecturers or TAs.

There were significant positive univariate effects found on one or more scales for the three primary variables related to travel and study abroad (study abroad, other travel abroad, and travel to a developing country), three additional variables related to other travel abroad (travel at age 18 and older, number of trips, purpose, and duration), and travel to a developing country for the purpose of living with your family. There were significant negative effects found for both travel to a developing country and other travel abroad for the purposes of tourism or the military (as opposed to work or cultural exchanges, living with family, or both for the variable of other travel abroad). These negative effects were found for both variables on the scale of Foreign Language Proficiency and for other travel abroad on the scale of Knowledge of a Specific Region or Country and six affective subscales. For study and other travel abroad, significant univariate effects favouring those who had been abroad were found on Foreign Language Proficiency and Knowledge of a Specific Region or Country. However, significant univariate effects were only found for study abroad on nine of the affective subscales (all except Charitable Involvement). For the three additional variables related to other travel abroad (number of trips, duration, and age 18 and older), significant univariate effects were found on Knowledge of a Specific Region or Country and Intercultural Curiosity and Involvement. In addition, for those who travelled at age 18

or older, there were significant effects found on International Knowledge and IB – Political Involvement. For longer stays abroad, significant effects were also found on the other two knowledge scales, and three additional affective subscales (IA&P – Global Interdependence and Cooperation, CC Skills – Intercultural Friendship, and CC Skills – Behavioural Flexibility). Positive effects were found for travel to a developing country on all three knowledge scales and eight affective subscales, and for living with one's family in a developing country for Foreign Language Proficiency and Knowledge of a Specific Region or Country.

Significant univariate effects were found for the remaining international variable, number of international events attended in the previous year. For those who attended more international events, higher scores were evidenced on all scales and subscales.

Summary and Conclusion

Procedures taken in preparing the data for analysis, descriptive statistics on the data, and statistical tests conducted on the data have been described in this chapter. Scores on the first three scales of internationalisation (Foreign Language Proficiency, Knowledge of a Specific Region or Country, and International Knowledge) and the subscales of the three affective scales (IA&P, CC Skills, and IB) were examined against all the background and internationalisation variables. Significant multivariate and univariate effects were found for the majority of variables on one or more of the scales. In order to see more clearly which variables were associated with higher scores on each scale, a table was created roughly summarising the results by scale and subscale (see Table 65). In the following section, the results and their implications with reference to the five research questions and the previous literature will be discussed.

Table 65

Summary of Results by Scale and Subscale

Scale or subscale	Background or academic variables correlated w/higher score	Internationalisation variables correlated w/higher score
Foreign Language Proficiency	U.S. participant; other race; born out of country; speak second lang at home; mother and/or father born abroad; mother w/some uni studies or an undergrad degree; father w/postgrad studies; major: humanities, comm, journalism, or foreign langs; Catholic, Orthodox or other religion (over non-religious); other religion (over Protestants); more frequent religious attendance.	Intl major, more partially or primarily intl classes, 5 or more intl friends, dated intl, attended more intl events, study abroad, other travel abroad, other travel abroad w/family or for work or cultural exchange, other travel: longer duration (>3 yrs over <10 weeks), travel to a dev country, lived w/family in a dev country, didn't travel to dev country for tourism or military.
Knowledge of a Specific Region or Country	U.S. participant; final-year UCBS student; KSU student (over GU); three or more years of uni; older age; males; other race (over White); born out of country; mother or father born abroad; speak second lang at home; mother or father w/some uni or postgrad studies; more intl news media; U.S.: watched public TV news; *other* religion; interested in politics.	Intl major; more partially or primarily intl classes; group projects w/intl students; 5 or more intl friends; dated intl; attended more intl events; more intl lecturers; study abroad; other travel abroad; other travel: age 18+, more trips, w/family or for work or cultural exchange, and longer duration (>3 yrs over <10 weeks & 10 weeks-3 years over ≤3 weeks); travel to a dev country; lived w/family in a dev country.
International Knowledge	Final-year student; GU or KSU student; KSU final-year student; more years at university; older age; males; no second lang spoken at home; mother w/some postgrad studies; father w/undergrad degree or more; GPA: highest quartile; watched or listened to more intl news; Australia & U.S.: watched public TV news; non-religious (over Christians); interested in politics; politically left (over right).	More partially or primarily intl classes, group projects w/intl students, attended more intl events, more intl lecturers, travel to a dev country, other travel: age 18+ and longer duration (>3 yrs over ≤3 weeks).
IA&P – Global Interdependence and Cooperation	Females; father born abroad; more intl news media; Australia & U.S.: watched public TV news; other religion (over Christian); non-religious (over Protestants); any political affiliation except not interested/knowledgeable (except right); politically left (except over other).	Intl major, more partially or primarily intl classes, group projects w/intl students, 3 or more intl friends, dated intl, attended more intl events, study abroad, travel to a dev country, other travel abroad for work or cultural exchange (over tourism and military), and longer duration (>1 yr over ≤3 weeks).
IA&P – Cultural Pluralism	U.S. participant; older age (23+); ≥4 years of uni; females; race: Black (over White); not majoring in engineering, aviation, IT, or mathematics; more intl news media; Australia: watched public TV news; U.S.: watched public TV news (over Fox news or + others); politically left (over right and not interested/knowledgeable).	Intl major, more partially or primarily intl classes, 3 or more intl friends, dated intl, attended more intl events, study abroad.

IA&P – Cultural and National Self-Awareness	U.S. participant; UCBS student (over GU); ≥4 years of uni; not majoring in business, economics or hospitality; major: humanities, comm, journalism, or foreign languages; more intl news media; Australia: watched public TV news; U.S.: watched public TV news (over Fox news or + others); *other* religion or non-religious (over Christians); politically left or other; politically centre (over right).	More classes w/some intl content, 5 or more intl friends, attended more intl events, study abroad.
CC Skills – Intercultural Communication and Teamwork	Final-year student; KSU student (over GU); older age (23+); ≥4 years of uni; race: other (over White); more intl news media; Australia: watched public TV news; U.S.: watched public TV news (over network or + others); any political affiliation except not interested/knowledgeable (except over right); politically left (over right).	Intl major, more partially or primarily intl classes, group projects w/intl students, 3 or more intl friends, dated intl, attended more intl events, 6 or more intl lecturers, study abroad, travel to a dev country, other travel abroad for work or cultural exchange (over tourism and military).
CC Skills – Intercultural Friendship	More intl news media; Australia: watched public TV news; U.S.: watched public TV news (over network or + others); other religion (over Catholic or Orthodox Christians); politically left (over not interested/ knowledgeable).	More partially or primarily intl classes, group projects w/intl students, more intl friends, dated intl, attended more intl events, more intl lecturers, study abroad, travel to a dev country, other travel abroad w/family, for work or cultural exchange and longer duration (1-3 yrs over <10 weeks).
CC Skills – Behavioural Flexibility	More intl news media, Australia: watched public TV news, politically left (over not interested/knowledgeable).	More partially or primarily intl classes, group projects w/intl students, 5 or more intl friends, dated intl, attended more intl events, study abroad, travel to a dev country, other travel: longer duration (>3 yrs over ≤3 weeks).
IB – Academic Involvement	U.S. participant; final-year student; older age (23+); ≥4 years of uni; race: Black (over White); speak second lang at home; mother w/some uni studies or postgrad studies; major: humanities, comm, journalism, or foreign langs; more intl news media; Australia: watched public TV news; interested in politics.	Intl major, more partially or primarily intl classes, 5 or more intl friends, attended more intl events, more intl lecturers, study abroad, travel to a dev country, other travel abroad for work or cultural exchange (over tourism and military).
IB – Intercultural Curiosity and Involvement	Older age (23+); ≥4 years of uni; females; not majoring in engineering, aviation, IT, or mathematics; major: humanities, comm, journalism, or foreign langs; more intl news media; Australia & U.S.: watched public TV news; politically left or centre (over not interested/knowledgeable) and politically left (over right).	Intl major; more partially or primarily intl classes; group projects w/intl students; more intl friends; dated intl; attended more intl events; more intl lecturers; study abroad; travel to a dev country; other travel: age 18+, more trips, w/family or for work or cultural exchange, and longer duration (>1 yr over ≤3 weeks).
IB – Charitable Involvement	Females; mother w/some postgrad studies; more intl news media; other religion; more frequent religious attendance; politically left (over not interested/knowledgeable).	5 or more intl friends, dated intl, attended more intl events, travel to a dev country, other travel abroad for work or cultural exchange (over tourism and military).

IB – Political Involvement	Final-year student; more years at uni; older age (23+); more intl news media; Australia & U.S.: watched public TV news; non-religious (over Protestants); any political affiliation except not interested/ knowledgeable; politically left (over right).	Intl major, more partially or primarily intl classes, group projects w/intl students, 5 or more intl friends, dated intl, attended more intl events, more intl lecturers, study abroad, travel to a dev country, other travel: age 18+.

Note. Abbreviations used: lang=language, uni=university, dev=developing, comm=communication, intl=international, postgrad=postgraduate, w/=with, undergrad=undergraduate.

Discussion

In this chapter, the results of this study are discussed as they relate to each of the five questions that structured the research:

1. Based on the literature and international education administrators, what are the expected student outcomes of the internationalisation of universities in the U.S. and Australia?
2. Are exiting undergraduate students at internationalised universities significantly different than entering students, based on various measures of internationalisation?
3. What background variables are correlated with higher scores on the various measures of internationalisation?
4. What aspects of internationalisation are correlated with higher scores on the various measures of internationalisation?
5. How do the three universities in the study differ on the various measures of internationalisation?

This is followed by a discussion of the limitations of the study, a summary of the discussion, and a suggested model of the process of internationalisation in individuals.

Discussion of Research Question One

For years now, international educators and researchers have attempted to delineate and measure the advantages of internationalisation, in particular study abroad, but also internationalisation of the curriculum and the presence of international students on a university campus (Anderson et al., 2006; Barrows, 1981; BCCIE, 2001; Carlson & Widaman, 1988; Carlson et al., 1991; Cash, 1993; Chieffo & Griffiths, 2004; Davies, 1992; Drake, 1984; Dwyer & Peters, 2004; Engle & Engle, 2004; Farrell & Suvedi, 2003; Fernández, 2006; Freedman, 1998; Hansel, 1986; Hansel & Grove, 1986; Hanvey, 1976; Hembroff et al., 1990; Hett, 1994; Hofman & Zak, 1969; Ingraham & Peterson, 2004; Kehl, 2005; Lambert, 1993; Leask, 2001; McCabe, 1994; Medina-López-Portillo, 2004; O'Leary, 2001; Nilsson, 2003; Paige et al., 2004; Peppas, 2005; Ryan & Twibell; Savicki et al., 2004; Sharma & Jung, 1986; Stephan & Stephan, 1992; Stronkhorst, 2005; Sutton & Rubin, 2004; Torney-Purta, 1986; Williams, 2002; Woyach, 1988). Hundreds of studies have been devoted to validating these claims in the area of study abroad (see Chao, 2000; Comp, 2003; and Weaver, 1989 for bibliographies of these studies), but fewer have looked at the other two areas (Barrows, 1981; Drake 1984; Hembroff et al., 1990; Hett, 1994; Matross et al., 1982; Nesdale & Todd, 2000; Nilsson, 2003; O'Leary, 2001; Paige, 1983; Sarles, 1998; Sharma & Jung,

1986). In some cases, the empirical literature validates some of these claimed benefits, but in others, offers support in only certain areas or with some of the cohorts studied (Barrows, 1981; Carlson et al., 1991; Cash, 1993; O'Leary 2001; Sutton & Rubin, 2004; Torney-Purta, 1986). However, the general consensus among the international educators and researchers cited in and consulted for this study is that a student who has participated in an internationalised education should be open-minded and accepting towards people from other countries and cultures, showing curiosity and interest, and a desire to learn further. Those who have spent significant time abroad should be able to see things from the perspective of someone from another culture. They should have skills in dealing with people from other cultures and language backgrounds, feel comfortable working in teams with people from other cultures, and hopefully have experienced deeper relationships with people from other countries as well. They should advocate a world view in which countries are interdependent and cooperative, and should be concerned with the betterment of mankind, not just the well being of their fellow countrymen. Many students should have useable foreign language skills, and all should have a solid base of general international knowledge, including both historical and current events, especially as they touch upon the history and actions of their own country and its effects on people in other countries. Some students will have engaged in study of another region or country such that they have sufficient knowledge to be able to gain work for which this knowledge is a prerequisite. Furthermore, these internationalised students should exhibit behaviours that reflect their worldmindedness, and will tend to be involved politically, charitably, academically, and personally with international issues and people.

These characteristics were operationalised as six general areas of internationalisation, three knowledge and three affective, and were included in the instrument developed for this study. With some small adjustments, these six areas and their definitions were validated through the data collected. Once the definitions within the three affective areas were adjusted and questions correctly placed within each of 10 subscales, a more accurate picture of the affective side of an internationalised education was produced. The expected outcomes described by the instrument now accurately reflect the theoretical expectations of those who have published articles related to internationalisation and the areas that this researcher would expect to see in students who have had an internationalised education. The correlations found between aspects of such an education and superior performance on the scales of this instrument further validate the areas selected and their final definitions.

In summary, students who participate in an internationalised education are expected to differ from other students in a number of ways. Their international and foreign language knowledge is expected to be superior to that of other students. They will have attitudes, perceptions, and behaviours that reflect a multicultural and international perspective, rather than a provincial or nationalistic perspective, and they will have skills in interacting and working effectively with people from other countries and cultures.

Discussion of Research Question Two

In some areas, exiting undergraduate students exhibit differences from entering undergraduate students. However, the fact that not all students follow a linear path to their degree means that the more meaningful variable for distinguishing between students at the beginning and end of their studies is the number of years they have spent at university. When looking at this variable, the response is more positive, as these students exhibit many differences from students with fewer years of tertiary studies.

One of the primary areas in which growth was evident was in international knowledge, which is appropriate, given that students attend university to increase their knowledge base. This is also supported by the literature (Barrows, 1981; Drake, 1984; Hembroff et al., 1990; Woyach, 1988). This increase in international knowledge may be the springboard for increased political involvement found for these students. Students with more years of university were also more able to interact successfully with people of other cultures, less threatened by their presence, and exhibited higher levels of curiosity about other countries and cultures. This is consistent with a conclusion that the presence of international students on campus (and through encounters during study abroad) has been effective in training students for situations they will be likely to encounter once finished with their studies, as well as for better citizenship in a multicultural society.

While students overall exhibited affective growth in interpersonal areas, they did not exhibit similar growth in their political worldview. It appears that changes in this area might well require more extended and deeper involvement with internationalisation to produce growth, than do the interpersonal and knowledge areas. This result is confirmed by Hett (1994) who also did not find differences in worldmindedness in students based on their year at university. It is likely that as internationalisation becomes more wide-ranging at these universities, results will become apparent in this area as well. Students also failed to demonstrate growth in foreign language skills. This is not surprising given that the foreign language requirement for graduation from those

universities that have one, is not significantly different from the requirement for admission to university (for typical American universities, two years at the high school level for admission to university, and two semesters at the university level for graduation from university). Foreign language skills that do not reach a certain level quickly deteriorate, so this kind of requirement does little more than sustain the low levels of foreign language skills with which most students leave high school.

To summarize, students exiting university and those with more years of university exhibit growth primarily in areas related to international knowledge, cross-cultural relations, international curiosity, and political involvement. A move towards a more interdependent worldview requires greater exposure by the entire student body to the elements of internationalisation before changes are exhibited. Greater foreign language skills will only become apparent with a stringent proficiency-based foreign language requirement or more widespread participation in study abroad in non English-speaking destinations.

Discussion of Research Question Three

The background variables found to have the widest-ranging influence are those related to exposure to international news media, and political interest and beliefs. Variables related to foreign ancestry are primarily operative for foreign language skills and knowledge of other countries, with the exception of speaking a second language at home, which has a wider sphere of influence. Most academic variables are primarily operative in academic domains, except major/course of study. Results for major appear to be related to the amount of exposure within the various majors to curriculum internationalisation and possibly to political beliefs. Effects for age are wide-ranging and similar to results for those who have spent more time at university, suggesting that age effects are related to the extent of exposure to the various methods of internationalisation. Gender, country, and race/ethnic group exhibit a more limited effect in a smaller number of areas.

Three variables were associated with higher scores across the instrument: exposure to international news media, political beliefs (left equals higher), and an interest in politics, all three of which were mostly supported by the literature (Barrows, 1981; Drake, 1984; Hembroff et al., 1990; Hett, 1994; Woyach, 1988), except for the finding that television and radio news was effective in bringing about greater international-mindedness. While student political beliefs are not under the control of universities, their exposure to international news is a factor in which universities could have an input, which might have an impact on their interest in politics. It follows that

universities who wish to see greater international-mindedness in their students could foster this by offering a free newspaper or magazine subscription to every student, showing international news programming in student centres or dormitories, or encouraging students to watch, read, or listen to international news. However, this study also showed that news programs are not all created equal, so the emphasis should be on public television news, which was found to bring about much greater growth in international-mindedness than commercial media. This result was especially strong for Australia, probably due to the influence of SBS, which in addition to being a public station, is a multicultural station that features a large amount of international news. Results for the U.S. favouring public television news, although not present on as many affective subscales, also indicate the importance of publicly-funded, non-biased news coverage that does not serve commercial interests, whose financial concerns have prompted greater and greater reductions in the international content of network news in the U.S. since the 1970s (McChesney, 2000).

Differences found favouring students with foreign ancestry or birth or from *other* race categories (which basically functioned as a repeat of these factors) support a conclusion that for the most part, the knowledge and skills that are gained through foreign ancestry do not extend beyond knowledge about a specific country and language. Only when the additional benefit of speaking a second language at home was added, did students begin to outshine peers in several areas of intercultural relations and interest. Lower levels of general international knowledge in these students might reflect an academic gap, perhaps due to lower English language skills, which corresponds to Hembroff et al.'s (1990) similar finding for those born outside the U.S.

The effect for age was the same but less than that for years at university, which would seem indicative of the fact that increases in international-mindedness are in fact connected with the university experience and not just ageing and maturing. Outcomes related to gender did not offer additional insights, except that, as in previous studies, males outperform women in knowledge areas (Drake, 1984; Hembroff et al., 1990; Woyach, 1988), and women outperform men in some affective areas (Barrows, 1981; Drake, 1984; Hett, 1994). However, this outcome supports a conclusion that males and females have particular gaps in their growth and learning that could benefit from tailored interventions.

This study found that Blacks, African Americans, Aborigines, and Torres Strait Islanders are greater cultural pluralists and more interested in studying international topics and foreign languages than Whites. This outcome has some support in the

literature, for instance, Drake's (1984) finding that Blacks and African Americans were more empathetic to those in the developing world. This might be related to members of these groups not sharing the mainstream culture in which they are studying. Consequently, superior scores on measures related to internationalisation may reflect growth that they have made in assimilating to that culture and a desire to continue to grow in this area by learning about the rest of the world, and in particular about their own roots.

With academic variables, the connection between parents' education and superior academic performance as demonstrated by GPA confirmed that students from an educated background, or who do better academically themselves, have an international knowledge advantage. The findings for GPA are supported in the literature (Barrows, 1981; Hembroff et al., 1990; Woyach, 1988), as are results for mother's education (Woyach, 1988). That higher levels of mother's education were also associated with greater international volunteer activity may indicate that mothers have an impact on their children's charitable involvement, most likely through their own example. However, on the whole, the academic variables were generally only correlated with higher scores on knowledge variables, and not attitudinal, skill-related, or behavioural variables.

Two of the findings for the other academic variable, course of study/major, appear to be primarily correlated with the amount of international content within these majors: engineering, aviation, information technology, or mathematics students were one of the groups most likely to have had no courses with international content after three or more years of university; and humanities, communication, journalism, or foreign languages students were one of the groups most likely to have had international course content. These findings replicate those of Hett (1994). Lower performance for business, economics, or hospitality students in one affective area may be a result of generally more right-leaning political attitudes among business students.

Results in the area of religion are most favourable towards those who are of *other* religions or the non-religious. This is likely connected to the general trend among the non-religious to be politically progressive, and among Protestant Christians to be politically conservative, which finds support in Drake's (1984) findings for religious conservatism. However, Protestant Christians were also less involved with international politics, which is likely due to the emphasis that has been put on domestic political issues in the last three decades among politically vocal U.S. Evangelicals. The more frequent attendees of religious services were partially redeemed in the finding of greater

charitable involvement, which is a tenet of all major faiths (Intelligent Giving, 2007).

Finally, the findings favouring American students over Australian students in five areas offer different explanations. Despite the fact that Americans have a reputation for poor foreign language skills, they significantly outshone Australians, confirming what is quickly evident to visitors to Australia: there are relatively few people with anything but rudimentary foreign language skills who do not come from a foreign background. This is understandable due to its geographical isolation, but an area that certainly has room for growth if Australians see internationalisation as a priority. The foreign language requirements in the U.S. at the high school and university levels are probably responsible for the superior results here, or perhaps the geographical proximity of the U.S. to Spanish- and French-speaking areas. These two factors might also account for greater interest in taking foreign languages amongst U.S. students. Students who start a language in high school or see some use for it at or near home would be more likely to want to continue it at university. Why Americans are more interested in taking international courses as well is not as obvious, but may be due to more flexibility in selecting subjects at university compared to the more fixed curriculum system present in Australian universities. Greater interest in international subjects would likely then result in greater knowledge of other regions or countries (which may also be related to larger levels of participation in study abroad). Another area in which Griffith University (GU) students performed worse than American students, that is in their readiness to participate in group projects with international students, may be a demonstration of sub-optimal conditions of contact. With such a large international student population at GU, students may be frequently forced into group projects with international students against their will and without any preparation or support. At both participating universities in the U.S., the international student population is so small that students would probably not be required to associate with international students if they did not choose to. Nevertheless, Kennesaw State University (KSU) students had the largest response to the question of whether they had worked with an international student on a group project, so there appears to be a different dynamic at work at these two universities, which would benefit from further research.

The final area in which Americans outperformed Australians, their comfort at hearing criticism of their own country, may be a matter of familiarity or agreement. American students who have had contact with foreigners are probably more accustomed to hearing criticism of the U.S. Also, given the place of the U.S. in the world and the political climate when the study was conducted, with the Iraq war in progress, American

students themselves may have been more critical of their own country and hence more open to outside criticism.

In summary, many factors were associated with differences in internationalisation results: country, individual characteristics (age, gender, and race/ethnic group), factors related to foreign ancestry (born out of the country, mother/father born abroad, and second language spoken at home), academic factors (GPA, course of study/major, and mother's/father's education), politics and religion (political beliefs, religion, and frequency of attendance at religious services), and exposure to news media (how often international news was watched or listened to, and stations watched for international news). The most important of these factors in their overall effect were exposure to international news media, interest in politics, and left-leaning political views. While universities cannot take action regarding most of these factors, there are ways in which they could promote greater exposure to international news among their students.

Discussion of Research Question Four

The variables of study abroad, friendship or romantic relationships with people from other countries, international course content, and attendance at international events predicted greater levels of internationalisation in students in the widest number of areas. Differences between these variables appeared mostly in whether they were operative for general international knowledge, which was not the case for study abroad and relationships with people from other countries, but was true for curriculum internationalisation variables and attendance at international events. Study abroad proved significantly more important than travel abroad in its effects on students; but the more a travel abroad experience resembled a study abroad experience, the greater the effects. Travel to developing countries also proved more influential than travel to developed countries. The remaining internationalisation variables (international major, group projects with international students, and number of international lecturers or teaching assistants) were also important in the majority of areas examined, although fewer than the primary internationalisation variables.

The results confirmed an affirmative answer to the primary question guiding this study: Is the internationalisation of universities effective in producing change in students? Furthermore, all primary areas of internationalisation (having international students on campus, internationalisation of the curriculum, and study abroad) were effective in producing change in the majority of areas, as was the variable of attendance at international events. This supports findings in the literature for affective growth

related to greater contact with international students (Hett, 1994; Hofman & Zak, 1969; O'Leary, 2001; Sharma & Jung, 1986) and greater international knowledge related to greater levels of international course content (Hembroff et al., 1990; Woyach, 1988). While some of the literature of study abroad and affective instruments offers mixed results (Barrows, 1981; Carlson et al., 1991; Cash, 1993; O'Leary 2001; Sutton & Rubin, 2004; Torney-Purta, 1986), this study found consistent support in all affective areas. However, it does not support previous findings that study abroad leads to greater general international knowledge (Barrows, 1981; Woyach, 1988). Findings for greater foreign language proficiency were consistent with previous studies (Barrows, 1981; BCCIE, 2001; Carlson et al., 1991; Cash, 1993; Engle & Engle, 2004; Hansel, 1986).

Students who had studied abroad proved to fit the model of an internationalised individual in almost all areas. The strong distinction between these results and those for international travel (particularly for holidays) are indicative of the importance of the study abroad experience per se. While students who are studying abroad are exposed to another culture in a variety of settings: academic, social, familial, and commercial, most of those who travel abroad for holidays generally do not venture outside heavily tracked tourist routes and commercial interactions, which does not force them outside their comfort zone or require any change on their part. Their contacts would most likely be with people accustomed to dealing with tourists, who speak English, and whose behaviour accommodates the visitors, not the opposite. In contrast, with study abroad, students are quickly pushed outside their comfort zone and often have dealings with people who are not accustomed to relating to foreigners. More positive findings for other travel abroad for purpose and duration show that the more a travel abroad experience shares the positive characteristics of a study abroad experience, the greater the effects. Presumably, this would also work in the other direction, whereby the more a study abroad program is a glorified holiday, the fewer the benefits that will likely result. While in two previous studies of worldmindedness (Hett, 1994; Kehl, 2005), significant differences were found for duration of study abroad, none were found in this study, most likely due to the small number of participants who had studied abroad. While perhaps the majority of the benefits of study abroad accrue to all participants, there may be more subtle benefits based on the type, length, and immersion of the experience and the age at which it occurs that only become visible in much larger samples (as they were found in the larger sample from this study of students who had travelled abroad). The differences found for other travel abroad for ages 18 and older also indicate that

students of a younger age may not be mature enough to develop as a result of a short-term visit abroad.

One final encouraging result related to travel abroad found in this study was the strong and consistent advantage found for students who had travelled to a developing country over those who had travelled, but only in the developed world. While there is much anecdotal evidence of the power of the effect of exposure to poverty, this study confirms its importance. This finding offers guidance to international education professionals who wish to see the greatest growth in their students but need to accommodate the desires of students, most of whom are not inclined to spend extended periods of time in a developing country. A short-term program or even holiday to a developing country can lead to similar benefits (except in the area of foreign language skills) that derive from a longer-term program to a developed country.

Results for the variables associated with contact with people from other countries indicate that the closer the contact with people from other countries, the greater the potential effects. However, these positive effects may not manifest themselves until students have had a number of international friends, indicating a long-term process of development. Therefore, even if most students make international friends prior to university, they can still benefit from the presence of international students at university, provided the minimum conditions of contact are met. However, growth was evident even for variables not specifically related to friendship, such as group projects and international lecturers, suggesting there may be a developmental process of knowledge and growth as the relationships with people from other countries deepen. Looking at the progression of significance on scales for contact variables as they move from more superficial to deeper contact, it is possible to postulate an order of learning and development. First one gains international knowledge through superficial contact with people from another country (which may be specific to one country or more general, based on whether the contact is of an academic nature). This leads to greater curiosity about other countries, cultures, and peoples, and the development of the cross-cultural skills necessary to interact with them, which is followed by heightened political involvement. As contact deepens, people become more flexible in their behaviour, and their attitudes begin to change such that they start to value interdependence and cooperation over nationalism. For the deepest contact (true friendship or romantic involvement), cultural beliefs are altered such that people become cultural pluralists, and even begin to get involved in helping people from other countries through charitable involvement. The last beliefs to change relate to one's own

country and openness towards others being a part of it without giving up their cultural identity, even to the point of being able to accept criticism of one's own country.

Differences among the three principal variables of internationalisation manifested themselves primarily around the topic of general international knowledge. While friendships with people from other countries and study abroad were effective in increasing students' knowledge about specific countries and regions, this learning did not extend to general international knowledge. Interestingly, it was the variables in the academic arena (international lecturers, group projects with international students, and curriculum internationalisation) that operated in the domain of international knowledge. (It might seem logical to include study abroad in this academic grouping, but as most students of study abroad would tell you, the study portion of study abroad is often the least significant in terms of growth, especially when courses offered are often similar to those from the home campus or may offer international information that is specific to the country or region of study only). It is possible that this connection with academic variables is because international knowledge is the most academic or knowledge-based of the variables (given its association with other academic variables and GPA). It also appears that having an infusion of international content into courses across the curriculum is just as effective in bringing about greater growth in students as having courses with primarily international content, such as global studies courses. This is an encouraging result, given that general curriculum internationalisation may be easier to accomplish at a university than adding required courses for all students (and generally it was not until the level of three or more primarily international courses that differences manifested themselves). While it seems logical that those with an international major would be more internationalised than those with just a few international courses, this did not turn out to be the case. However, this may be a reflection of fewer students being enrolled in an international major and the differences being too statistically subtle to appear with a smaller number of students, or possibly because many international majors are narrowly focussed on their subject area.

To summarise, all of the primary internationalisation variables proved to be associated with growth in most areas, which is a welcome result supporting the work of those pushing for wide-ranging campus internationalisation. Distinctions arose within the results for international knowledge, with only academic variables proving to be effective in this area. Study abroad proved much more effective than travel abroad in bringing about growth, and travel to developing countries more effective than travel to developed countries. Findings for variables related to contact with international students

suggest a progression of learning and growth as relationships with people from other countries deepen.

Discussion of Research Question Five

While international administrators from the three universities in the study placed their universities at different stages of internationalisation, and there were several large differences between the universities in their international emphases, they were quite similar in their international outcomes. Two of the largest differences noted were found between students from the U.S. and Australia, leaving only a few differences particular to any one university and attributable to greater internationalisation.

The major differences in internationalisation methods and support found between the universities in the study, through self-description and descriptive statistics, indicated that KSU was likely to be the most internationalised of the three universities and University College at Buffalo State (UCBS) the least. While GU is quite advanced in terms of the number of international students on campus, it lags behind the other two universities in terms of study abroad and internationalisation of the curriculum. That these findings favouring KSU were supported somewhat in the results, serves as a preliminary indication that as a university internationalises, its students will begin to demonstrate differences from students at other universities. Nevertheless, the differences in outcomes between the universities were few and slight, except in terms of foreign language skills and interest in foreign languages and international subjects, which seemed to be country-wide rather than university-level phenomena. This suggests that despite a university's commitment to internationalisation and the administrative structures to implement it, it may still be in the early stages of producing outcomes in its students. It likely takes significant and widespread curriculum internationalisation, much greater participation in study abroad, and many more international students than observed at these universities (with the exception of GU for number of international students) to start exhibiting greater effects. It appears that the benefits of internationalisation in two or more of the primary areas have not yet reached enough of the student body in these three universities.

The one counterintuitive finding, that UCBS students performed better in accepting criticism of their country, is more likely attributable to country- and region-level differences than internationalisation. The southeast of the U.S. is known to be more politically conservative, and therefore students at KSU would be less likely to be accepting of criticism of their country than students in the northeast at UCBS. The only remaining finding of note was the difference between KSU and GU students in their

preferences for working on group projects with people from their own country. KSU had the highest percentage of students reporting having worked with an international student on a group project, and it appears that their experiences have been positive. GU had a very high level as well, but less favourable responses in this area. This could be a result of the manner in which these projects are arranged or the nationality or English language skills of the international students attending each university. It does point to the possibility that the much higher number of international students at GU is leading to student fatigue with constantly having to overcome the challenges associated with working quite frequently with international students. More research into these results at GU would be beneficial in order to continue internationalisation in a way that would be beneficial to all parties concerned.

In summary, some of the differences between the three universities participating in the study were likely the result of national or regional differences rather than the result of internationalisation. However, a few remaining differences favouring KSU serve as preliminary support that the more a university internationalises, the greater the detectable outcomes in its students.

Limitations

There are a number of limitations to this study related to the validity or reliability of individual sections of the instrument, coverage of the subject area, method of test development, and cross-cultural validity. In addition, cautions in interpreting the data and presumption of causality are discussed.

There are a number of concerns regarding the validity of certain sections of the instrument. For the reading and writing scales from the section on Foreign Language Skills, the correlations between the students' self-ratings and the ratings of the lecturers were lower than desirable, even though they did reach significance. Further validation of these scales would be desirable in foreign language classes with low student to teacher ratios where the teacher knew each student's abilities well. In addition, students' understanding of the wording should be examined and future testing should exclude students whose native language is not English (although that information was not collected, it appeared that there were a number of international students in the test population). However, it is also possible that the low correlation is not due to the scales but rather to the accuracy of the teachers' ratings. This is an ongoing problem in attempting to measure and categorise foreign language competence.

Other limitations of this study relate to the international knowledge test. Because of the shortness of the test, validity was lower than desired. Adding additional questions

might solve this concern without having to return to the original test length of 101 questions. Questions will also have to be updated as current events mentioned in the test change (e.g., the signing of the Kyoto Protocol by Australia in December of 2007). Another limitation with this section of the test is that only four individuals (two professors and two environmental professionals) were consulted for the composition of the new international knowledge questions. Though these two professors have international and national repute in the field, it is acknowledged that the concept of international knowledge is difficult to define, and it would have been ideal to assemble a larger group of professors and other professionals to agree on the how the concept of international knowledge would be operationalised. However, the new questions only composed one quarter of the international knowledge test in the end, and the researcher and the professors who helped with the questions attempted to stay faithful to the format and nature of the Barrows' (1981) questions in composing the new questions. To reach a true consensus on the nature of international knowledge and to compose a completely new test to measure it would be an appropriate task for another doctoral student, and was beyond the scope of this project.

Another section of the test, Knowledge of a Specific Region or Country, may be less valid than the other sections, due to its self-report nature, although the scale was written to try to temper students' self-confidence regarding their own knowledge. In addition, many significant results on this scale may have been an artefact of the scoring, as even the lowest level of skill on each item (reflecting knowledge that is not useful in a practical sense) would give a score of six, which was significantly higher than the zero that was given to anyone who did not have any specific knowledge of another country or region and did not complete that section.

Another limitation is that while every effort was made to create an instrument that covered as wide a definition as possible of the knowledge, attitudes, perceptions, skills, and behaviours that should result from an internationalised education, some concepts were inevitably lost as questions were eliminated during content judging, pilot testing, and factor analysis. Consequently, there may be areas that are not covered in this instrument that some would consider essential areas of growth as a result of internationalisation. One regrettable example of question loss was from the scale of International Attitudes and Perceptions: "Our country shouldn't have to follow the mandates of the United Nations – we know what's best for us." This question touched in a unique way on the nuts and bolts of international cooperation but did not load onto the same factor as other related questions. In future use of this instrument, it would be ideal

to run a pilot test with more questions that relate to this area to determine if there is another factor that could be incorporated. In addition, some areas are underrepresented, resulting in several factors of only two items (although in some cases the two items cover the desired area completely).

In addition, some would interpret the manner in which questions were written for the affective section to be a limitation, as they were not derived from actual student statements. However, it is argued here that no test that purports to measure specific areas and cover these areas exhaustively has the luxury of relying exclusively on student statements, as certain statements might not be made in the course of many interviews or focus groups. In addition, it seems likely that student statements would have to be rewritten at least somewhat to be appropriate for inclusion on a test instrument. Finally, what one student actually uttered might be something that the vast majority of the students taking the test would never utter, so an actual statement made by one individual is in no way superior to a statement written by a researcher with extensive international experience, validated by six other individuals with content area expertise, and subjected to pilot testing and factor analysis.

Another caution regarding use of this test is that it is written from a Western perspective and does not claim cross-cultural validity. It is also written specifically for the purpose of assessing university students in developed countries. However, it would be interesting to conduct future research that tested whether it would be applicable in other world regions.

Finally, because this research is not experimental in nature, it is impossible to be sure of the directionality of any of the correlations found. It is distinctly possible that those who are more internationally-minded participate in overseas travel, international courses and activities, and seek out people from other countries and cultures, which then reinforces existing attitudes, skills, and behaviours. The reality is likely to be somewhere in between.

Summary

Answers have been provided to the five research questions posed in this work. The empirical and theoretical literature of internationalisation has predicted changes in students in internationalised universities in the areas of foreign language skills, general and country- and region-specific international knowledge, international attitudes and perceptions, cross-cultural skills, and international behaviours. These changes have been demonstrated in exiting undergraduate students from the three participating universities, who are significantly different from entering undergraduate students on some of the

measures. Those students with more years of university demonstrate even more growth. With greater exposure to the components of internationalisation, differences between entering and exiting students are predicted to increase. Background variables also affect the level of internationalisation any individual demonstrates. Those related to exposure to news media and political beliefs were the most important overall, but those related to foreign ancestry, academic background and performance, individual characteristics, and country were relevant as well. All internationalisation variables examined were associated with greater internationalisation outcomes in students in some areas. However, the primary variables connected with the three principal methods of internationalisation: contact with international students, study abroad, and internationalisation of the curriculum, all showed consistent, positive correlations with greater internationalisation in students. Furthermore, the superiority of study abroad over travel abroad, and travel to developing countries over travel to developed countries was demonstrated. The three universities included in the study differed in their support for and methods of internationalisation, and outcomes for the university that appeared to be the most internationalised partially justified this distinction. Nevertheless, other than the strong differences between Australia and the U.S. on foreign languages and international academic involvement, students from the three universities were very similar in their results on the scales.

The answers to these research questions lead to the proposal of the following model of international development in individuals. Family background (including foreign ancestry and language variables, race/ethnic group, country, and parental education), travel experiences, academic experiences, and international friendships begin to plant the seeds of international knowledge and exposure prior to university. This exposure for some individuals may be superficial or may already be quite deep prior to attending university. The deeper the exposure, the more attitudes begin to change. At an internationalised university, students are exposed to greater international knowledge through an internationalised curriculum and the presence of international students, which leads to greater curiosity about other peoples and cultures, and development of the cross-cultural relational skills necessary to interact with them. Prior to and during university, students are also increasingly exposed to international news, which continues their development of international knowledge. This exposure and other international activities, such as international course content, engender greater political interest and involvement. Some students whose interest is sufficiently peaked or whose families have already taken them abroad, choose to study abroad, further enhancing

their international development. As relationships with people from other countries both at home and abroad deepen, and international knowledge continues to increase, individuals learn to alter their behaviour, and their political attitudes begin to change such that they start to value interdependence and cooperation over nationalism. For those who reach the deepest levels of contact (true friendship or romantic involvement), culture begins to take on relative status, and international attitudes give way to behaviours geared towards helping people from other countries. Finally, those with the greatest levels of international involvement reach a point in which their beliefs change with regard to their own country, such that they can accept others into it who are different without being threatened by them, and can see their own country objectively. Throughout this process, certain mediating variables (including gender, religion, and political beliefs) may further encourage or limit individual development. This model is represented in Figure 1. This model accounts both for the variables that cause international development in an individual and the order in which various components of that development take place.

In this model, the first four boxes at the top represent the inputs prior to university that place a student at a certain level of international development. The arrows down the sides represent the four variables that usually increase during university (age, international knowledge, exposure to international news, and years spent at university). The two on the right are incidental to development (age and years spent at university) and the two on the left promote development (international knowledge, exposure to international news). The areas in the ovals represent the growth areas for students in successive order. The diagonal words represent the intervening variables (in no particular order) that may either advance or hold back an individual in their international development, represented by moving down the model.

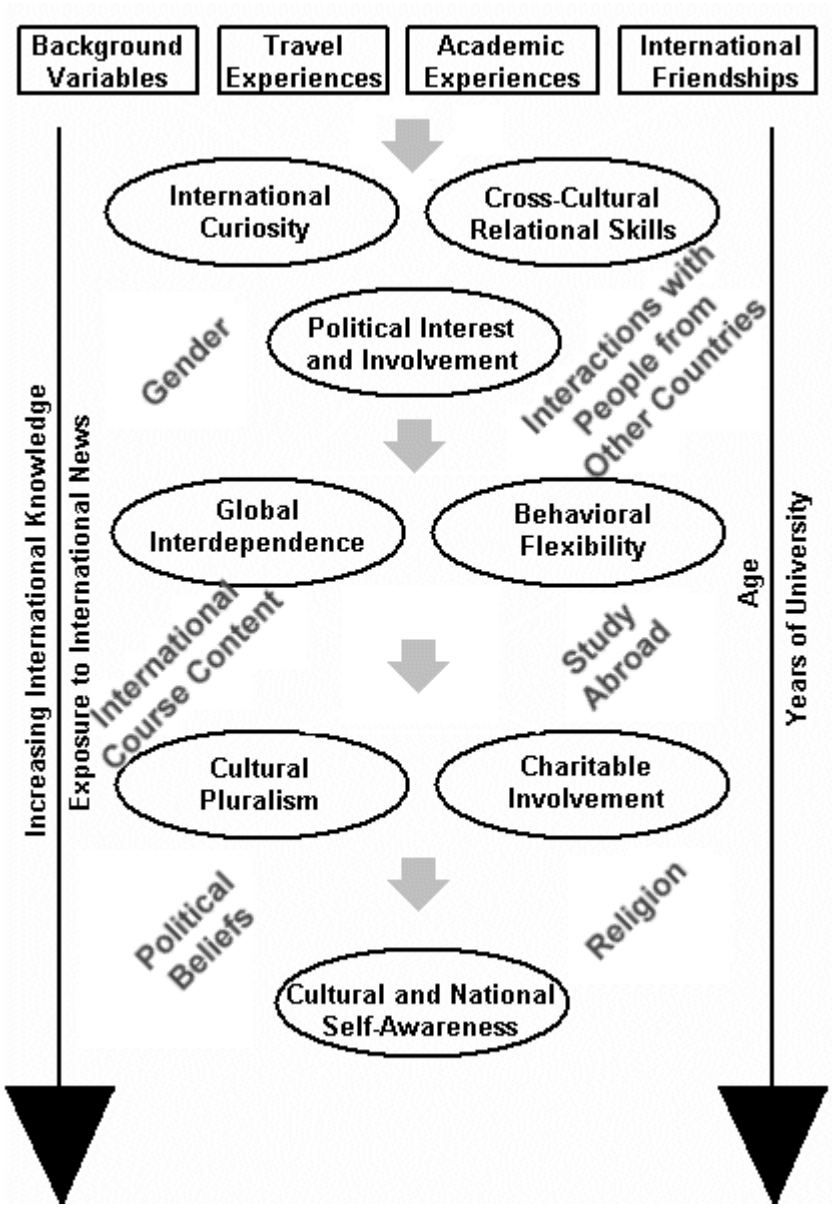

Figure 1. Model of international development in students.

Conclusion

This study was initiated with a bit of scepticism. After five years in the study abroad profession in the U.S., I was questioning the meaningfulness of my work. While the occasional student entered the study abroad office at the university where I was working with an original request, the vast majority participated in the same programs in Western European (and in large part English-speaking) destinations for as short a period of time as possible (usually just a summer). They took classes with students primarily from their own university, with lecturers primarily from their own university, and often even stayed in group housing. It was the very rare student who participated in an exchange program, even in English-speaking countries, in which they would be immersed in a foreign university and would likely form friendships with students from the host country.

Furthermore, observations of the primarily postgraduate international student population at this university led me to believe that interactions with domestic undergraduate students were quite rare. It seemed that only those few students on incoming exchange programs actually diversified the primarily white, middle class campus atmosphere at the undergraduate level.

Curriculum internationalisation, although discussed, had hardly begun and there was resistance to the idea among teaching staff. Furthermore, the more strident advocates of study abroad were adamant in their insistence that nothing could replace study abroad in its effects on students and that all students should participate in it. This was a tenable position if one were working for a small, private, liberal arts college, but just not realistic when dealing with a large, land-grant university where the set goal of 25% participation in study abroad was much more realistic.

Higher administration at universities around the U.S. had come to embrace internationalisation in their strategic plans, but I was somewhat sceptical of the actual importance they truly placed on it. Few American universities had any type of international requirements in the curriculum, there was inadequate staff in most international offices, and there were few universities with incentives for professors to be involved in international activities in terms of hiring and tenure.

So the questions began to pose themselves. Is study abroad as effective as it purports to be, even if the program is six weeks long, the students associate almost entirely with people from their own country, and they never even have to learn a foreign language? Is there any benefit to domestic students in bringing international students to campus, given that they interact primarily with one another, are hardly present at the

undergraduate level, and most domestic students do not seem interested in getting to know them? Are the students the university graduates any different from those it accepts in terms of their international worldview? Could the university experience do anything to temper the nationalistic political mentality that seemed to have taken over the U.S. after the attacks of September 11th? Does the work of international education actually matter in changing and shaping students? Is it important enough to devote one's career to it? This study was composed in a way as an answer to these questions in hopes of giving meaning to my chosen profession.

It was therefore a relief that the outcomes of this study have to some extent quelled these doubts and questions. In relation to my motivation for beginning the study, the most important question was whether the elements of international education change students for the better. The answer would inform my reflections on the meaningfulness of international study experiences and my own professional involvement in this field. The results provided the basis for a resounding answer in the affirmative.

All of the primary elements of internationalisation were effective in bringing about changes in almost all areas measured. It was also found that interaction and friendship with people from other countries was in fact widespread among students, particularly in Australia, but also in the U.S., such that concerns regarding the isolation of international students were probably not as great as originally thought. Furthermore, it appeared that despite concerns regarding the nature and location of study abroad programs, the experience brought about positive results, and differences related to duration, age, and level of immersion were not significant. However, some suspicions about the impact of sending students to developed countries rather than to developing countries, were, in fact, justified. This is not to say that there are no benefits received by students when they study in a developed country, just that there are much greater benefits when the experiences occur in a developing country. The on-the-ground realisation of the differences in how "others" live in relation to "us" cannot be replaced in its power to change attitudes.

Findings supporting the inclusion of international content in the curriculum were also encouraging, given that this seemed to affect not just the knowledge realm, but the affective realm, and it is an area that can potentially reach all students at any given university. While institutions may find that adding a requirement of international studies courses for all students is difficult to accomplish without widespread support, the

finding that general internationalisation was just as effective as offering some type of global studies requirement offers an attainable alternative.

Other questions in the study, although secondary in importance to my personal quest, also informed issues that had generated my concerns. Were students changed on exiting university? The positive results are not as wide-ranging as with the elements of internationalisation, but the answer is still "yes". The longer they stay, the better the outcomes. But if internationalisation is so effective, why were the effects not seen in a greater number of areas? The answer may lie in the fact that the universities studied are actually in the early stages of their internationalisation. While Griffith University (GU) is doing very well in admitting international students, most Australian university students have already had many international friendships prior to beginning their tertiary studies. Therefore, they stand to benefit much more from an internationalised curriculum and greater participation in study abroad than the addition of more international students.

In addition, exclusive reliance at GU on exchange programs as a means of sending students abroad is limiting growth in study abroad. The reality is that while an immersed experience in a foreign university may bring about the most growth in an individual, most students are not ready for this type of experience, and many need an easier entry point for studying abroad, and one in which they receive greater support than is given in a typical exchange program. Australian universities would benefit from adopting some elements of the American model in which students can study abroad for shorter periods of time in programs with greater support structures, and still be able to transfer credit back to their home university. This would help particularly in boosting the poor performance of Australian students in terms of foreign language skills. However, Australian universities should be wary of moving too far towards the American model, in which many programs have dubious internationalisation value. One way of assuring that programs meet a higher standard would be to require them to meet one of four characteristics geared towards greater quality: longer duration, more challenging location, greater immersion, or foreign language environment. That is, a program would only be acceptable to a developed country if it was in a non-English speaking country, students were directly enrolled at a foreign university, or it lasted at least a semester. Students participating in programs in developing countries could opt for shorter programs with a lower level of immersion. These suggestions could apply also to American universities wishing to see better outcomes from their study abroad programs.

For the two American universities in the study, there is still much room for improvement in bringing more international students to campus, particularly in the case of UCBS, which could also benefit from the addition of more international teaching staff. Both American universities could also benefit from greater internationalisation of the curriculum, such that no student could say that he or she had taken no classes with international content after spending three years on campus, whatever the course of study. Kennesaw State University is certainly heading in the right direction with its new initiatives towards internationalisation, and the results are already beginning to show.

In completing the picture of what moves some students closer to the internationally-minded ideal described in this study, demographic factors come into play. Some are expected: women are more empathetic while men are better with facts; older students, those with left-leaning politics, and those who consume international media more often, are more international-minded overall. Those of *other* races and religions have better cross-cultural skills, foreign language skills, and knowledge of other countries than Whites and Christians; those with foreign ancestry have more foreign language skills and knowledge of other countries; students whose parents are better educated are more knowledgeable. Other results are less expected and harder to explain definitively: Blacks are more open to people of other cultures and more interested in studying languages and taking international courses, people with highly educated mothers are more charitably involved, Americans are in some ways more internationalised than Australians.

What do these findings imply for practice? In most cases there is no policy implication for these demographic findings, they are basic data and more or less interesting depending on the reader's perspective. In other cases, there are practical implications. For example, men participate in much lower numbers in study abroad than women do. However, they are the ones who are most lacking in the affective growth that study abroad promotes. Perhaps they could be better targeted with programs in academic areas that are male-dominated and locations that attract men. Women, on the other hand, could benefit from more international course content or exposure to international media. While university administrators would be prevented from being involved in such decisions, independent individuals and groups who offer study abroad scholarships could target groups who trail most in the benefits that study abroad promotes: Whites, Christians, the politically conservative, those whose parents have lower levels of education. This goes almost entirely against conventional wisdom whereby minorities typically receive preference for scholarships.

This is the end game to internationalisation for most of us in the profession of international education. We are internationalists ourselves who value other countries and peoples as much as we value our own and we wish to see these values shared by the students with which we work. We hope that the process of education serves the higher purpose of creating better world citizens along with other professional or personal goals. To some extent, this study validates our efforts to date and offers some insight into how international education professionals might better address such issues, and universities might assess their progress in achieving their desired internationalisation outcomes.

The instrument developed in this study, with some adaptations, additions, and retesting, could serve the need in the field of international education for an up-to-date, valid, and reliable instrument to measure a wide-ranging set of outcomes of an internationalised education. In particular, some changes will likely be made to add questions to the sections on International Knowledge and Attitudes and Perceptions, to change and retest the foreign language Reading and Writing scales, and to possibly change and revalidate the scale on Knowledge of a Specific Region or Country. Unlike most of the other instruments developed under the rubric of intercultural competence and intercultural communication competence, this instrument is not designed exclusively for individuals who have spent time or are planning to go overseas. It is also the only instrument that covers not only attitudes and skills, but international behaviours, foreign language skills, and international knowledge. For the affective domain, a very large sample of students provided valid data for factor analysis, which more clearly defined the relationship between the attitudes and perceptions, skills, and behaviours described in the literature. This instrument also matches well with the Global Learning Outcomes for Graduating Seniors articulated by Kennesaw State University (n.d.), the only university in the study that had specifically outlined its desired internationalisation outcomes, and with the findings of Deardorff (2004) in both the institutional definitions of intercultural competence and the items rated the highest by university administrators.

Another area in which this study contributes to the field is through its use of participants from universities in two different countries, which thereby verifies that the knowledge, attitudes, perceptions, skills, and behaviours that are touted in the U.S. as resulting from an internationalised education are also applicable in an Australian context and vice versa. This instrument, with some modifications, offers a viable tool for ongoing future research at U.S. and Australian universities in the process of internationalisation to track their progress, gauge their success in achieving their goals,

and pinpoint strengths and weaknesses in the internationalisation process. This will allow for adjustments to the undergraduate education program that will benefit not only students, but the local community, and hopefully, the rest of the world.

Appendix A

University Internationalisation Survey Final Version (Australia)

Background Information

1. Citizenship status:
   ___ Australian citizen
   ___ Australian permanent resident
   ___ Citizen of another country (do not select if dual citizen with Australia or permanent resident of Australia)

2. Age: _____

3. Sex: __ Male __ Female

4. How many years have you attended university full-time? (Include all university studies, not just current degree. If you attended part-time only, see next question.)
   0 | Less than 1 | 1 | 2 | 3 | 4 | 5 | More than 5

5. How many years have you attended university part-time?
   0 | Less than 1 | 1-2 | 3-4 | 5-6 | More than 6

6. Were you born outside of Australia?__ Yes __ No

7. If yes on 6, age of arrival in Australia: _____

8. Do you or did you speak (or understand) a language other than English at home or with relatives?
   __ Yes __ No

9. Was your mother (or guardian) born or raised partially or completely outside of Australia?
   __ Yes __ No

10. Was your father (or guardian) born or raised partially or completely outside of Australia?
    __ Yes __ No

11. What is your mother or guardian's highest level of education?
    Less than high school qualification
    High school qualification
    TAFE degree
    Some university but less than an undergraduate degree
    Undergraduate degree
    Some postgraduate or research studies or more
    Other, please specify: _____

12. What is your father or guardian's highest level of education?
    Less than high school qualification
    High school qualification
    TAFE degree
    Some university but less than an undergraduate degree
    Undergraduate degree
    Some postgraduate or research studies or more
    Other, please specify: _____

13. Grade Point Average (most recent cumulative average; for first-year students, use high school average): _____

14. *What is your course of study (select up to 2)?*
    Biological or Physical Sciences
    Business or Hospitality
    Communication, Journalism, or Media Studies
    Creative or Visual Arts (e.g., Art, Dance, Drama, Music)
    Ecology or Environmental Studies
    Education
    Engineering or Aviation
    Ethnic, Indigenous, Culture, or Gender Studies
    Foreign Languages, Literatures, or Linguistics
    Health, Human, or Medical Sciences
    Humanities (e.g., Anthropology, Art History, English, Philosophy)
    International Studies
    Information Technology
    Law or Criminology
    Mathematical Sciences
    Social Sciences (e.g., History, Political Science, Psychology, Sociology, Social Work)
    Theology
    Other, please specify: _____

15. Is your course of study considered an international course of study or does it contain a significant international component ? __ No __ Yes

16. Since the beginning of your studies at university, how many classes (other than foreign language classes) have you taken or are you currently taking with a primary focus on international topics?
    0 | 1-2 | 3-4 | 5-6 | 7+

17. Excluding classes from the previous question, since the beginning of your studies at university, how many classes (other than foreign language classes) have you taken or are you currently taking with some international content or with a focus on countries other Australia or New Zealand?
    0 | 1-3 | 4-6 | 7-9 | 10 or more

18. Have you ever studied in a country other than Australia (at any age)? ___ Yes ___ No

19. If yes, please list details of each study abroad experience separately in the table below (including time spent studying in another country for those who were not born or raised in Australia): *(5 rows)*

Level of studies (circle all that apply)	Level of Immersion	Duration
A. Elementary school B. Middle school C. High school D. Technical School /TAFE/Language School C. University or beyond	A. Studied and lived with Australians B. Studied with Australians but lived partly or entirely with people from the host country C. Studied with international students and lived with either Australians or with international students D. Studied with international students and lived partly or entirely with people from the host country E. Studied with students from the host country	A. 4 weeks or fewer B. More than 4 and up to 8 weeks C. More than 8 weeks and up to one semester D. More than one semester and up to one academic year E. More than one academic year

20. Have you ever travelled or lived outside of Australia for any other purpose?
___Yes ___ No

21. If yes, please list details of each trip or living experience abroad below (including time spent elsewhere for those who were not born or raised in Australia): *(5 rows)*

Your Age at the Time of Departure	Purpose	Duration
A. 0-4 B. 5-9 C. 10-13 D. 14-17 E. 18+	A. Lived abroad with my family B. Cultural exchange C. Tourism/Holidays/ Business Trip/Conference D. Military E. Volunteer, internship or paid work	A. 3 weeks or fewer B. More than 3 and less than 10 weeks C. More than 10 weeks and less than 1 year D. More than 1 and less than 3 years E. More than 3 years

22. Have you ever travelled to or lived in a developing country? __ No __ Yes

23. If yes, for what purpose (select all that apply)?
Lived there with my family
Cultural exchange
Tourism/Holidays/Business Trip/Conference
Military
Volunteer, internship, or paid work
Study *(included in first-year student survey only)*

24. Over the course of your life, how many friends or acquaintances have you had who were from a different country or foreign culture than the one in which you grew up?
0 | some acquaintances but no friends | 1-2 friends | 3-4 friends | 5 or more friends

25. Did you make these international friends and acquaintances
At university
Outside of university (including during previous schooling)
Both at university and outside of university
I do not have any friends or acquaintances from a different country or foreign culture

26. Have you ever dated someone from a country other than the one in which you grew up? ___ Yes ___ No

27. During your university studies to date, have you worked with students from another country on any class projects or group assignments? ___ Yes ___ No

28. During your university studies to date, how many of your lecturers or teaching assistants have been from other countries?
    0 | 1 | 2-3 | 4-5 | 6+

29. How many international events have you attended (on or off campus) during the previous year (films, clubs, international theme nights, international festivals, talks, etc.)?
    0 | 1 | 2-3 | 4-5 | 6+

30. How often do you watch TV newscasts or listen to radio programs containing international news?
    Never | Rarely | Occasionally | Often | Very Often

31. What, if any, TV stations do you usually watch for national/international news? Check up to two most frequently watched.
    ABC
    Channel 7
    Channel 9
    Channel 10
    CNN
    SBS
    Sky News Australia
    Other
    None

32. How often do you read international news in a newspaper or magazine (in print or online format)?
    Never | Rarely | Occasionally | Often | Very Often

33. Race/ethnic group (select all that apply):
    White
    Aboriginal or Torres Strait Islander
    Other

34. How would you describe your political beliefs?
    Far-left
    Left of centre (e.g., Labour Party)
    Centre
    Right of centre (e.g., Liberal Party)
    Far-right
    Other
    Not interested in or knowledgeable about politics

35. How would you describe your (birth) family's socio-economic status?
    Lowest 25% | Between 25% and 50% | Between 50% and 75% | Highest 25%

36. What is your religion?
Christian: Catholic or Orthodox
Christian: Mainline Protestant (Presbyterian, Baptist, Uniting, Methodist, Anglican)
Christian: Evangelical
Latter Day Saints
Jewish
Buddhist
Muslim
Hindu
Non-religious/Secular/Atheist/Agnostic
Other, please specify: _____

37. How often do you attend religious services?
Rarely or never
A few times a year
Once a month
Every two weeks
Once a week or more

Foreign Language Skills

38. In each of the following seven scales on foreign language skills, please select one level to describe your highest level of knowledge/skill for the foreign language in which you have the most knowledge. If you have never studied or learned a foreign language in any capacity, please indicate below and skip this section.

For those whose native language is not English, please describe your skills in English or your best foreign language, if it is not English.

___ I have studied or know a foreign language.
___ I have no foreign language knowledge at all.

39. Reading

Select the one level below that describes your reading skills in your best foreign language.

Level 1	I can read a limited number of basic words or characters.
Between levels 1 & 2	
Level 2	I can read short dialogues or passages on familiar or everyday topics with very simple vocabulary and structure.
Between levels 2 & 3	
Level 3	I can consistently understand the main point of short readings with relatively simple vocabulary and structure, although I may misunderstand some of the details.
Between levels 3 & 4	
Level 4	I can read passages several paragraphs in length if the topic and context are clear and the language structure is not too complex. I understand the main ideas and most details in texts such as short stories, personal or business letters, or newspaper articles.
Between levels 4 & 5	
Level 5	I usually understand uncommon words or phrases. I can read any type of non-technical text at normal speed and with almost complete comprehension, even when on unfamiliar topics or with advanced or academic vocabulary or complex structure.
Between levels 5 & 6	
Level 6	I understand cultural references, nuances, subtleties, uncommon expressions, and slang, as would a native speaker of the language. I can read highly complex formal and informal texts at normal speed, including letters, newspaper articles, novels, poetry, song lyrics, academic articles, and technical material.

40. Writing

Select the one level below that describes your writing skills in your best foreign language.

Level 1	For languages with an alphabetic and/or syllabic writing system, I can write and understand the letters of the alphabet and produce a few words or phrases from memory. For languages with characters (such as Chinese), I can produce and understand isolated, basic strokes from memory.
Between levels 1 & 2	
Level 2	I can write simple texts such as lists, postcards, and notes on familiar or everyday topics, although I make errors and my control of grammar and vocabulary limits my ability to express more complex ideas.
Between levels 2 & 3	
Level 3	I can write short, simple communications and compositions on familiar, everyday topics, such as daily routines, common events, or personal experiences, usually in the present tense. I can attempt to use past or future tenses or express more complex ideas but may make mistakes.
Between levels 3 & 4	
Level 4	I can write easily on familiar topics and in a variety of tenses. This includes basic academic writing, social correspondence, stories, and descriptions of a factual nature. As the level of complexity increases, the structure of my writing is often translated from my native language and at times is awkward or difficult to understand.
Between levels 4 & 5	
Level 5	I can write easily on a variety of topics of interest to me and with precision and detail, including those requiring specialized vocabulary such as summaries, reports, and research papers. I tailor my writing to the reader (e.g., formal or informal). I make occasional grammatical, spelling, or vocabulary errors but a native speaker would easily understand my writing.
Between levels 5 & 6	
Level 6	I can write with fluency and ease on familiar and unfamiliar topics, including those requiring specialized vocabulary. My writing has the complexity, narrative structure, vocabulary, style, and tone required by the task, and would be perceived as written by a native speaker.

41. Speaking: Vocabulary

Select the one level below that describes your vocabulary while speaking in your best foreign language.

Level 1	I know a limited number of high frequency words and common conversational set expressions. (e.g., How are you? My name is ...)
Between levels 1 & 2	
Level 2	I have enough vocabulary to make simple statements and ask questions in a simplified conversation.
Between levels 2 & 3	
Level 3	I have an adequate working vocabulary. I know some synonyms and can express simple ideas in a limited number of different ways.
Between levels 3 & 4	
Level 4	I have enough vocabulary to participate in everyday conversation and know many alternative ways of expressing simple ideas.
Between levels 4 & 5	
Level 5	I have enough vocabulary to participate in more extended discussions on various topics. I also know some connotations and nuances of certain words and expressions.
Between levels 5 & 6	
Level 6	I have an extensive native-like vocabulary.

42. Speaking: Fluency

Select the one level below that describes your fluency while speaking in your best foreign language.

Level 1	I can speak using only short question-answer patterns such as *How are you? I am fine, thank you.*
Between levels 1 & 2	
Level 2	I can participate in a simple conversation on familiar everyday topics at slower-than-normal speed. I must frequently pause during conversation.
Between levels 2 & 3	
Level 3	I can express myself using simple language, but make mistakes and pause a lot when I try to express complex ideas.
Between levels 3 & 4	
Level 4	I can effortlessly express myself at near normal speed. Occasionally, I have to slow down when expressing complex ideas and less-common expressions.
Between levels 4 & 5	
Level 5	I am generally fluent, but occasionally have minor pauses when I search for the correct manner of expression.
Between levels 5 & 6	
Level 6	I have native-like fluency.

43. Speaking: Pronunciation

Select the one level below that describes your pronunciation while in your best foreign language.

Level 1	I have difficulty in accurately producing the sounds and sound patterns of the language.
Between levels 1 & 2	
Level 2	I am beginning to master some sounds and sound patterns, but still have difficulty with some of the sounds.
Between levels 2 & 3	
Level 3	I can produce most of the sounds and sound patterns, but sometimes need to repeat myself to make the utterance more clear.
Between levels 3 & 4	
Level 4	My speech is always intelligible, but a definite accent and/or awkward intonation patterns are apparent.
Between levels 4 & 5	
Level 5	My pronunciation and intonation are near native-like.
Between levels 5 & 6	
Level 6	My pronunciation and intonation are exactly like those of a native speaker.

44. Speaking: Grammar

Select the one level below that describes your grammar while speaking in your best foreign language.

Level 1	I can only use common conversational set expressions.
Between levels 1 & 2	
Level 2	I can produce very basic sentence patterns but with frequent grammatical errors.
Between levels 2 & 3	
Level 3	I can produce a few complex sentence constructions but with noticeable grammatical errors.
Between levels 3 & 4	
Level 4	I can speak using a good range of complex patterns and grammatical rules. However, occasional errors are still present.
Between levels 4 & 5	
Level 5	I have a good command over a large range of complex grammar and errors are infrequent.
Between levels 5 & 6	
Level 6	I can speak with a native-like command of complex grammatical patterns.

45. Listening Comprehension

Select the one level below that describes your listening comprehension while speaking in your best foreign language.

Level 1	I can understand a limited number of high frequency words and common conversational set expressions such as *How are you?* or *My name is-*.
Between levels 1 & 2	
Level 2	I can understand simple questions and statements in short dialogues or passages if it is repeated at slower-than-normal speed.
Between levels 2 & 3	
Level 3	I can understand the main point(s) of a short dialogue or passage if spoken at slower-than-normal speed. I may need some repetition.
Between levels 3 & 4	
Level 4	I can understand most of what is said (all main points and most details) at near normal speed.
Between levels 4 & 5	
Level 5	I can understand nearly everything at normal speed, although occasional repetition may be necessary.
Between levels 5 & 6	
Level 6	I can understand everything at normal speed like a native speaker.

46. For the foreign language you described in the previous questions, since you began studying or learning this language, have you visited a country in which it is spoken?
___ No
___ Yes

International Knowledge

For the next 20 questions, select the most correct answer.

47. Which of the following best characterised the behaviour of the United States and the Soviet Union during the era of détente in the 1970's?

I. Joint cooperation in solving economic problems in developing countries
II. Greater restraint on both sides during international crises
III. Movement toward improved economic relations
IV. Suspension of the arms race

a. I and III only
b. I and IV only
c. **II and III only**
d. II, III, and IV only

48. Most of the new nations that gained their independence from colonial powers in the thirty-year period after the Second World War are located on which of the following pairs of continents?
    a. Europe and Asia
    b. **Asia and Africa**
    c. Africa and South America
    d. South America and Asia

49. Since 1950, the percentage of total population in Africa, Asia, and Latin America living in cities has
    a. increased
    b. remained stable
    c. decreased slightly
    d. decreased greatly

50. By their use of the term "neo-colonialism", political leaders in developing countries mean that
    a. Historical relationships have been reversed and power is no longer in the hands of the former colonial powers
    b. Political independence has not brought economic independence to developing countries
    c. New European Union imperialism has replaced traditional Western imperialism
    d. There still exist some former colonies that do not have full independence

51. Which of these energy sources causes the least damage in terms of global warming and environmental impact?
    a. Hydroelectric power
    b. Nuclear power
    c. Natural gas
    d. Solar power

52. Which of the following countries have NOT ratified the Kyoto Protocol to the United Nations Framework Convention on Climate Change?
    a. The United States and Australia
    b. Japan
    c. The United Kingdom and France
    d. Russia

53. The primary argument against livestock production in a densely populated world is that it
    a. Involves feeding crops to animals whose meat ultimately produces significantly less protein and calories than the food the animals consume
    b. Attaches more importance to producing high quality cuts of meat than to maximising the volume of output
    c. Gives priority to beef cattle when goats, hogs, and chickens could better serve as exports to the rest of the world
    d. Produces meat of high animal fat content when vegetable fats are better and cheaper

54. Genetically modified foodstuffs are opposed by many people because they
    a. Are proven to be harmful to human beings
    b. Potentially eliminate biodiversity
    c. Are more susceptible to pests and diseases
    d. Threaten the trade share of traditional agricultural exporters like the United States

55. Since the Second World War, ethnic or religious groups that have engaged in violent conflict with one another include which of the following?
    I. Jews and Arabs
    II. Hindus and Muslims
    III. Christians and Muslims
    IV. Catholics and Protestants

    a. I only
    b. I and IV only
    c. II and III only
    d. I, II, III, and IV

56. Which of the following sports is the most popular worldwide?
    a. Baseball
    b. Tennis
    c. Soccer
    d. Basketball

57. In the seventeenth and eighteenth centuries significant numbers of black slaves were brought from Africa to all of the following EXCEPT
    a. British North America
    b. The Caribbean Islands
    c. Brazil
    d. Argentina

58. In 1977, Amnesty International won the Nobel Peace Prize for
    a. Working for peace in the Israeli-Palestinian conflict
    b. Supporting self-exiled draft resisters
    c. Working for the freedom of political prisoners
    d. Working for disarmament

59. Which of the following countries has NOT had a terrorist attack since September 11, 2001?
    a. Kenya
    b. Saudi Arabia
    c. Spain
    d. **France**

60. Which of the following is NOT a characteristic of Islam?
    a. Veneration of Jerusalem as the faith's most holy city
    b. Belief in one God
    c. Recognition of Moses as an important prophet
    d. Belief in an after-life

61. The announced aims of political groups that have adopted terrorist tactics include all of the following EXCEPT
    a. Gaining publicity for and recognition of their objectives by the general public and other nations
    b. Drawing the regular armed forces of the government into major battles in order to destroy or capture the army's more sophisticated equipment
    c. Exposing hypocrisy of constitutional governments by provoking violent repression
    d. Developing an identity, building patriotism, and enhancing the morale of the organisation or people they claim to represent

62. Ties between Al Qaida and the current or former governments of all the following countries have been proven to exist EXCEPT:
    a. Afghanistan under the Taliban
    b. Sudan in the early 1990's
    c. Iraq under Saddam Hussein
    d. Iran's current government

63. The IMF (International Monetary Fund) was established after the Second World War to
    a. Safeguard the needs of developing countries
    b. Lend money to national governments to stabilise exchange rates and prevent another global economic depression
    c. Act as a supranational economic institution that would have strong authority over national economic policies
    d. Operate the Marshall Plan and make loans to multinational corporations

64. The "brain drain" refers to the
    a. large-scale migration of highly trained professionals to countries with higher standards of living
    b. lack of opportunity for millions of high school students to receive a university education
    c. reluctance of many governments to employ in responsible positions nationals who have studied and received degrees abroad
    d. lack of financial resources for the development of advanced research facilities in many of the newly independent countries

65. Which of the following statements about the nineteenth-century gold standard is NOT true?
    a. Net balances owed to and by a country were settled by gold movements.
    b. The price of gold was set by the private market rather than by governmental action.
    c. All transactions between one country's residents and another country's residents were made in gold.
    d. For purposes of international trade, the value of a country's currency could be expressed in terms of gold.

66. The worldwide spread of human disease has been linked to all of the following EXCEPT
    a. Advances in transportation technology and associated increases in the speed at which carriers of disease travel
    b. The development of super strains of bacteria and viruses or their vectors as unintended consequences of disease prevention measures
    c. Increased contact among hitherto remote populations through voluntary and involuntary migrations
    d. The evolution of new insect species that sometimes carry human diseases - health

Knowledge of a Specific Region or Country

67. Do you have special knowledge of a country or region outside of Australia (or the Australia/New Zealand region)?
____ Yes
____ No

68. [If yes on 67] Please select the region OR write in the name of the country or region below under 'Other' about which you have the MOST knowledge:

Africa
North Africa
Southern Africa
West Africa
East Africa
Central America
Latin America
South America
North America
The Middle East
Europe
Western Europe
Eastern Europe
Asia
Central Asia
East Asia
Southeast Asia
South Asia
Other, please specify: _____

For the country/region you have selected, please rate your highest level of knowledge in each of the following areas.

69. In relation to where knowledge of the country/region fits within my discipline (e.g., business, journalism, political science, literature), I am
- Familiar enough to have a casual conversation on this topic
- Familiar enough to write a paper on this topic
- Familiar enough to accept employment where knowledge of this area is required
- Familiar enough to give a formal presentation on this topic
- Familiar enough to teach a short course on this topic (with preparation)
- None of the above

70. History of the country/region. I am
    - Familiar enough to have a casual conversation on this topic
    - Familiar enough to write a paper on this topic
    - Familiar enough to accept employment where knowledge of this area is required
    - Familiar enough to give a formal presentation on this topic
    - Familiar enough to teach a short course on this topic (with preparation)
    - None of the above

71. Culture (customs, etiquette, family life, religion, values, behaviour, etc.) of the country/region. I am
    - Familiar enough to have a casual conversation on this topic
    - Familiar enough to write a paper on this topic
    - Familiar enough to accept employment where knowledge of this area was required
    - Familiar enough to give a formal presentation on this topic
    - Familiar enough to teach a short course on this topic (with preparation)
    - None of the above

72. Government and domestic politics of the country/region. I am
    - Familiar enough to have a casual conversation on this topic
    - Familiar enough to write a paper on this topic
    - Familiar enough to accept employment where knowledge of this area was required
    - Familiar enough to give a formal presentation on this topic
    - Familiar enough to teach a short course on this topic (with preparation)
    - None of the above

73. Foreign policy of the country/region. I am
    - Familiar enough to have a casual conversation on this topic
    - Familiar enough to write a paper on this topic
    - Familiar enough to accept employment where knowledge of this area was required
    - Familiar enough to give a formal presentation on this topic
    - Familiar enough to teach a short course on this topic (with preparation)
    - None of the above

74. Geography, population, and natural characteristics of the country/region. I am
    - Familiar enough to have a casual conversation on this topic
    - Familiar enough to write a paper on this topic
    - Familiar enough to accept employment where knowledge of this area was required
    - Familiar enough to give a formal presentation on this topic
    - Familiar enough to teach a short course on this topic (with preparation)
    - None of the above

75. Attitudes and Perceptions

Likert Scale: Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree

1.	I'd like to better understand the causes of the various conflicts around the world.
2.	I think about how my behaviour might affect people in other countries.
3.	I prefer not to talk to foreigners because it is difficult to understand their English.
4.	It's interesting to talk to people from other countries and cultures and learn more about their customs and values.
5.	I prefer to work with students from my own country on group projects – it makes things easier.
6.	High School students should be required to learn as much about the history and politics of other countries as they do about their own country.
7.	I tend to think of myself as a citizen of the world rather than of just my country.
8.	I don't think knowing about international or intercultural issues will help in my career.
9.	I am concerned about how my consumption of natural resources affects the world.
10.	I think we'll only solve world problems by cooperating more closely with other countries.
11.	I'm not really interested in why foreigners in my country behave differently from us –they've moved here and they need to adapt to the way we do things.
12.	I believe we must go to greater lengths to avoid solving conflicts by warfare.
13.	We could learn a lot from the way they do things in other countries.
14.	Our country shouldn't have to follow the mandates of the United Nations – we know what's best for us.
15.	I would support my brother or sister if he or she married someone from another country or culture.
16.	I think our country should contribute more to help people in poorer countries.
17.	It upsets me when migrants or international visitors criticise my country.
18.	I like the variety of people, races, languages and cultures – it enriches our world.

76. Cross-Cultural Skills

Likert Scale: Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree

1.	I have worked successfully with international students on group projects.
2.	Even when I don't agree with someone else, I treat them with respect.
3.	I become anxious when I'm the only local student in a group of international students.
4.	Sometimes international students have different communication styles, but we still manage to communicate well.
5.	I find it easy to see issues from the perspective of a person from another culture.
6.	Although there may be some miscommunications when I talk to people from other countries, I almost always manage to get my message across.
7.	It would be difficult for me to become close friends with someone who wasn't from my culture or one with similar values and customs.
8.	I've had an in-depth discussion with someone from another country whose culture is very different from mine.
9.	Although I've spoken with people from other countries, I've never actually been able to form a friendship with someone from outside my country.
10.	I'm willing to change my behaviour if it offends someone from another culture, especially if I'm in their country.
11.	I know how to adjust my language to help someone with limited English skills understand better.
12.	I have changed my behaviour when interacting with people from another culture in order to fit in or not give offence.
13.	I feel comfortable making small talk with people from other countries.
14.	It is frightening for me to travel to new places, especially out of the country.
15.	I have had real friendships with people from other countries or cultures with very different values or customs.

77. Behaviours

Likert Scale: Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree

1.	I consistently follow international news.
2.	When someone has stereotyped foreigners, I have spoken up.
3.	I donate to charities that work internationally.
4.	I don't usually try to get to know people from other countries.
5.	I've seen people from other cultures do things we wouldn't do here, but I don't think worse of them for that.
6.	I have volunteered for a charity that works internationally.
7.	I don't usually watch TV shows or see movies about other countries and their cultures.
8.	I like to read articles or books about other countries or cultures.
9.	I try to ask people from other cultures about their values and customs.
10.	I put a high priority (or would put a high priority) on international issues when voting for elected officials.
11.	I don't like to read things that are critical of my country.
12.	I've chosen to study a foreign language.
13.	I try (or will try) to become informed about the positions of politicians on international issues so I can be an informed voter.
14.	I have invited an international student to my home.
15.	I have never criticised my own country's foreign policy.
16.	I have made it a priority to enrol in classes that cover international issues.

Appendix B

University Internationalisation Survey Final Version (U.S.)

Background Information

1. Citizenship status:
   ___ U.S. citizen
   ___ U.S. permanent resident
   ___ Citizen of another country (do not select if dual citizen with U.S. or permanent resident of U.S.)

2. Age: _____

3. Sex: __ Male __ Female

4. How many years have you attended university full-time? (Include all university studies, not just current degree. If you attended part-time only, see next question.)
   0 | Less than 1 | 1 | 2 | 3 | 4 | 5 | more than 5

5. How many years have you attended university part-time?
   0 | Less than 1 | 1-2 | 3-4 | 5-6 | more than 6

6. Were you born outside of the U.S. ?__ Yes __ No

7. If yes on 6, age of arrival in the U.S.: _____

8. Do you or did you speak (or understand) a language other than English at home or with relatives?
   __ Yes __ No

9. Was your mother (or guardian) born or raised partially or completely outside of the U.S.?
   __ Yes __ No

10. Was your father (or guardian) born or raised partially or completely outside of the U.S.?
    __ Yes __ No

11. Mother or guardian's highest level of education:
    Less than a high school degree
    High school degree
    Technical/Vocational school degree
    Some college but less than a Bachelor's
    Bachelor's degree
    Some graduate school or more
    Other, please specify: _____

12. Father or guardian's highest level of education:
    Less than a high school degree
    High school degree
    Technical/Vocational school degree
    Some college but less than a Bachelor's
    Bachelor's degree
    Some graduate school or more
    Other, please specify: _____

13. What is your grade point average (most recent cumulative average; for freshmen, use high school average): _____

14. What is your major (for multiple majors, select up to three responses):
    Biological or Physical Sciences
    Business or Economics
    Computer Science or Information Systems
    Creative or Visual Arts (e.g., Art, Dance, Drama, Music)
    Criminal Justice
    Education
    Engineering
    Environmental Sciences (e.g., Ecology, Geography, Urban Planning)
    Ethnic or Women's Studies
    Fashion or Textiles
    Foreign Languages & Literatures
    Health, Human and Medical Sciences (e.g., Speech-Language Pathology, Nursing, Occupational Therapy, Pre-Medicine, Forensic Chemistry)
    Hospitality and Tourism
    Humanities (e.g., Anthropology, Art History, English, Philosophy, Religion)
    Human Services (e.g., Non-Profit Management)
    Information Technology (including Game Design)
    International Affairs
    Journalism / Communications
    Mathematical Sciences
    Sports Management
    Social Sciences (e.g., History, Political Science, Psychology, Sociology, Social Work)
    Undecided
    Other, please specify: _____

15. Is your major considered an international major or does it contain a significant international component ? __ Yes __ No

16. Since the beginning of college, how many courses (other than foreign language courses) have you taken or are you currently taking with a primary focus on international topics?
    0 | 1-2 | 3-4 | 5-6 | 7 or more

17. Excluding courses from the previous question, since the beginning of college, how many courses (other than foreign language courses) have you taken or are you currently taking with some international content or with a focus on countries other than the U.S.?
    0 | 1-3 | 4-6 | 7-9 | 10 or more

18. Have you ever studied in a country other than the U.S. (at any age)? ___ Yes ___ No

19. If yes, please list details of each study abroad experience separately in the table below (including time spent studying in another country for those who were not born or raised in the U.S.): *(5 rows)*

Level of studies (circle all that apply)	**Level of Immersion**	**Duration**
A. Elementary school B. Middle school C. High school D. Technical, Vocational, or Language School E. University or beyond	A. Studied and lived with Americans B. Studied with Americans but lived partly or entirely with people from the host country C. Studied with international students and lived with either Americans or with international students D. Studied with international students and lived partly or entirely with people from the host country E. Studied with students from the host country	A. 4 weeks or fewer B. More than 4 and up to 8 weeks C. More than 8 weeks and up to one semester D. More than one semester and up to one academic year E. More than one academic year

20. Have you ever traveled or lived outside of the U.S. for any other purpose?
    ___Yes ___ No

21. If yes, please list details of each trip or living experience abroad below (including time spent elsewhere for those who were not born or raised in the U.S.): *(5 rows)*

Your Age at the Time of Departure	**Purpose**	**Duration**
A. 0-4 B. 5-9 C. 10-13 D. 14-17 E. 18+	A. Lived abroad with my family B. Cultural exchange C. Tourism/Vacation/Business Trip/Conference D. Military E. Volunteer, internship or paid work	A. 3 weeks or fewer B. More than 3 and less than 10 weeks C. More than 10 weeks and less than 1 year D. More than 1 and less than 3 years E. More than 3 years

22. Have you ever traveled to or lived in a developing country? __ No __ Yes

23. If yes, for what purpose (select all that apply)?
    Lived there with my family
    Cultural exchange
    Tourism/Vacation/Business Trip/Conference
    Military
    Volunteer, internship or paid work
    Study

24. Over the course of your life, how many friends or acquaintances have you had who were from a different country or foreign culture than the one in which you grew up?
0 | some acquaintances but no friends | 1-2 friends | 3-4 friends | 5 or more friends

25. Did you make these international friends and acquaintances
At college
Outside of college (including during previous schooling)
Both at college and outside of college
I do not have any friends or acquaintances from a different country or foreign culture

26. Have you ever dated someone from a country other than the one in which you grew up? ___ Yes ___ No

27. During your university studies to date, have you worked with students from another country on any class projects or group assignments? ___ Yes ___ No

28. During your university studies to date, how many of your professors or teaching assistants have been from other countries?
0 | 1 | 2-3 | 4-5 | 6+

29. How many international events have you attended (on or off campus) during the previous year (films, clubs, international theme nights, international festivals, talks, etc.)?
0 | 1 | 2-3 | 4-5 | 6+

30. How often do you watch TV newscasts or listen to radio programs containing international news?
Never | Rarely | Occasionally | Often | Very Often

31. What, if any, TV stations do you usually watch for national/international news? Check up to two most frequently watched.
ABC | BBC | CBS | CNN | Fox News | MSNBC | NBC | PBS | Other | None

32. How often do you read international news in a newspaper or magazine (in print or online format)?
Never | Rarely | Occasionally | Often | Very Often

33. Race/ethnic group:
White, European American, Non-Hispanic
Black, African American, Non-Hispanic
Asian American
Pacific Islander
Hispanic American
American Indian, Alaskan Native
Middle Eastern or North African
Other

34. How would you describe your political beliefs?
Far-left
Left of center (liberal)
Center
Right of center (conservative)
Far-right
Other
Not interested in or knowledgeable about politics

35. How would you describe your (birth) family's socio-economic status?
Lowest 25% | Between 25% and 50% | Between 50% and 75% | Highest 25%

36. What is your religion?
Christian: Catholic or Orthodox
Christian: Mainline Protestant (Methodist, Lutheran, Presbyterian, Episcopalian, Baptist)
Christian: Evangelical
Latter Day Saints
Jewish
Buddhist
Muslim
Hindu
Non-religious/Secular/Atheist/Agnostic
Other, please specify: _____

37. How often do you attend religious services?
Rarely or never
A few times a year
Once a month
Every two weeks
Once a week or more

Foreign Language Skills

38. In each of the following seven scales on foreign language skills, please select one level to describe your highest level of knowledge/skill for the foreign language in which you have the most knowledge. If you have never studied or learned a foreign language in any capacity, please indicate below and skip this section.

For those whose native language is not English, please describe your skills in English or your best foreign language, if it is not English.

___ I have studied or know a foreign language.
___ I have no foreign language knowledge at all.

39. Reading

Select the one level below that describes your reading skills in your best foreign language.

Level 1	I can read a limited number of basic words or characters.
Between levels 1 & 2	
Level 2	I can read short dialogues or passages on familiar or everyday topics with very simple vocabulary and structure.
Between levels 2 & 3	
Level 3	I can consistently understand the main point of short readings with relatively simple vocabulary and structure, although I may misunderstand some of the details.
Between levels 3 & 4	
Level 4	I can read passages several paragraphs in length if the topic and context are clear and the language structure is not too complex. I understand the main ideas and most details in texts such as short stories, personal or business letters, or newspaper articles.
Between levels 4 & 5	
Level 5	I usually understand uncommon words or phrases. I can read any type of non-technical text at normal speed and with almost complete comprehension, even when on unfamiliar topics or with advanced or academic vocabulary or complex structure.
Between levels 5 & 6	
Level 6	I understand cultural references, nuances, subtleties, uncommon expressions, and slang, as would a native speaker of the language. I can read highly complex formal and informal texts at normal speed, including letters, newspaper articles, novels, poetry, song lyrics, academic articles, and technical material.

40. Writing

Select the one level below that describes your writing skills in your best foreign language.

Level 1	For languages with an alphabetic and/or syllabic writing system, I can write and understand the letters of the alphabet and produce a few words or phrases from memory. For languages with characters (such as Chinese), I can produce and understand isolated, basic strokes from memory.
Between levels 1 & 2	
Level 2	I can write simple texts such as lists, postcards, and notes on familiar or everyday topics, although I make errors and my control of grammar and vocabulary limits my ability to express more complex ideas.
Between levels 2 & 3	
Level 3	I can write short, simple communications and compositions on familiar, everyday topics, such as daily routines, common events, or personal experiences, usually in the present tense. I can attempt to use past or future tenses or express more complex ideas but may make mistakes.
Between levels 3 & 4	
Level 4	I can write easily on familiar topics and in a variety of tenses. This includes basic academic writing, social correspondence, stories, and descriptions of a factual nature. As the level of complexity increases, the structure of my writing is often translated from my native language and at times is awkward or difficult to understand.
Between levels 4 & 5	
Level 5	I can write easily on a variety of topics of interest to me and with precision and detail, including those requiring specialized vocabulary such as summaries, reports, and research papers. I tailor my writing to the reader (e.g., formal or informal). I make occasional grammatical, spelling, or vocabulary errors but a native speaker would easily understand my writing.
Between levels 5 & 6	
Level 6	I can write with fluency and ease on familiar and unfamiliar topics, including those requiring specialized vocabulary. My writing has the complexity, narrative structure, vocabulary, style, and tone required by the task, and would be perceived as written by a native speaker.

41. Speaking: Vocabulary

Select the one level below that describes your vocabulary while speaking in your best foreign language.

Level 1	I know a limited number of high frequency words and common conversational set expressions. (e.g., How are you? My name is ...)
Between levels 1 & 2	
Level 2	I have enough vocabulary to make simple statements and ask questions in a simplified conversation.
Between levels 2 & 3	
Level 3	I have an adequate working vocabulary. I know some synonyms and can express simple ideas in a limited number of different ways.
Between levels 3 & 4	
Level 4	I have enough vocabulary to participate in everyday conversation and know many alternative ways of expressing simple ideas.
Between levels 4 & 5	
Level 5	I have enough vocabulary to participate in more extended discussions on various topics. I also know some connotations and nuances of certain words and expressions.
Between levels 5 & 6	
Level 6	I have an extensive native-like vocabulary.

42. Speaking: Fluency

Select the one level below that describes your fluency while speaking in your best foreign language.

Level 1	I can speak using only short question-answer patterns such as *How are you? I am fine, thank you.*
Between levels 1 & 2	
Level 2	I can participate in a simple conversation on familiar everyday topics at slower-than-normal speed. I must frequently pause during conversation.
Between levels 2 & 3	
Level 3	I can express myself using simple language, but make mistakes and pause a lot when I try to express complex ideas.
Between levels 3 & 4	
Level 4	I can effortlessly express myself at near normal speed. Occasionally, I have to slow down when expressing complex ideas and less-common expressions.
Between levels 4 & 5	
Level 5	I am generally fluent, but occasionally have minor pauses when I search for the correct manner of expression.
Between levels 5 & 6	
Level 6	I have native-like fluency.

43. Speaking: Pronunciation

Select the one level below that describes your pronunciation while speaking in your best foreign language.

Level 1	I have difficulty in accurately producing the sounds and sound patterns of the language.
Between levels 1 & 2	
Level 2	I am beginning to master some sounds and sound patterns, but still have difficulty with some of the sounds.
Between levels 2 & 3	
Level 3	I can produce most of the sounds and sound patterns, but sometimes need to repeat myself to make the utterance more clear.
Between levels 3 & 4	
Level 4	My speech is always intelligible, but a definite accent and/or awkward intonation patterns are apparent.
Between levels 4 & 5	
Level 5	My pronunciation and intonation are near native-like.
Between levels 5 & 6	
Level 6	My pronunciation and intonation are exactly like those of a native speaker.

44. Speaking: Grammar

Select the one level below that describes your grammar while speaking in your best foreign language.

Level 1	I can only use common conversational set expressions.
Between levels 1 & 2	
Level 2	I can produce very basic sentence patterns but with frequent grammatical errors.
Between levels 2 & 3	
Level 3	I can produce a few complex sentence constructions but with noticeable grammatical errors.
Between levels 3 & 4	
Level 4	I can speak using a good range of complex patterns and grammatical rules. However, occasional errors are still present.
Between levels 4 & 5	
Level 5	I have a good command over a large range of complex grammar and errors are infrequent.
Between levels 5 & 6	
Level 6	I can speak with a native-like command of complex grammatical patterns.

45. Listening Comprehension

Select the one level below that describes your listening comprehension while speaking in your best foreign language.

Level 1	I can understand a limited number of high frequency words and common conversational set expressions such as *How are you?* or *My name is-*.
Between levels 1 & 2	
Level 2	I can understand simple questions and statements in short dialogues or passages if it is repeated at slower-than-normal speed.
Between levels 2 & 3	
Level 3	I can understand the main point(s) of a short dialogue or passage if spoken at slower-than-normal speed. I may need some repetition.
Between levels 3 & 4	
Level 4	I can understand most of what is said (all main points and most details) at near normal speed.
Between levels 4 & 5	
Level 5	I can understand nearly everything at normal speed, although occasional repetition may be necessary.
Between levels 5 & 6	
Level 6	I can understand everything at normal speed like a native speaker.

46. For the foreign language you described in the previous questions, since you began studying or learning this language, have you visited a country in which it is spoken?
___ No
___ Yes

International Knowledge

For the next 20 questions, select the most correct answer.

47. Which of the following best characterized the behavior of the United States and the Soviet Union during the era of détente in the 1970's?

I. Joint cooperation in solving economic problems in developing countries
II. Greater restraint on both sides during international crises
III. Movement toward improved economic relations
IV. Suspension of the arms race

a. I and III only
b. I and IV only
c. **II and III only**
d. II, III, and IV only

48. Most of the new nations that gained their independence from colonial powers in the thirty-year period after the Second World War are located on which of the following pairs of continents?
    a. Europe and Asia
    b. **Asia and Africa**
    c. Africa and South America
    d. South America and Asia

49. Since 1950, the percentage of total population in Africa, Asia, and Latin America living in cities has
    a. increased
    b. remained stable
    c. decreased slightly
    d. decreased greatly

50. By their use of the term "neo-colonialism", political leaders in developing countries mean that
    a. Historical relationships have been reversed and power is no longer in the hands of the former colonial powers
    b. Political independence has not brought economic independence to developing countries
    c. New European Union imperialism has replaced traditional Western imperialism
    d. There still exist some former colonies that do not have full independence

51. Which of these energy sources causes the least damage in terms of global warming and environmental impact?
    a. Hydroelectric power
    b. Nuclear power
    c. Natural gas
    d. Solar power

52. Which of the following countries have NOT ratified the Kyoto Protocol to the United Nations Framework Convention on Climate Change?
    a. The United States and Australia
    b. Japan
    c. The United Kingdom and France
    d. Russia

53. The primary argument against livestock production in a densely populated world is that it
    a. Involves feeding crops to animals whose meat ultimately produces significantly less protein and calories than the food the animals consume
    b. Attaches more importance to producing high quality cuts of meat than to maximizing the volume of output
    c. Gives priority to beef cattle when goats, hogs, and chickens could better serve as exports to the rest of the world
    d. Produces meat of high animal fat content when vegetable fats are better and cheaper

54. Genetically modified foodstuffs are opposed by many people because they
    a. Are proven to be harmful to human beings
    b. Potentially eliminate biodiversity
    c. Are more susceptible to pests and diseases
    d. Threaten the trade share of traditional agricultural exporters like the United States

55. Since the Second World War, ethnic or religious groups that have engaged in violent conflict with one another include which of the following?
    I. Jews and Arabs
    II. Hindus and Muslims
    III. Christians and Muslims
    IV. Catholics and Protestants

    a. I only
    b. I and IV only
    c. II and III only
    d. I, II, III, and IV

56. Which of the following sports is the most popular worldwide?
    a. Baseball
    b. Tennis
    c. Soccer
    d. Basketball

57. In the seventeenth and eighteenth centuries significant numbers of black slaves were brought from Africa to all of the following EXCEPT
    a. British North America
    b. The Caribbean Islands
    c. Brazil
    d. Argentina

58. In 1977, Amnesty International won the Nobel Peace Prize for
    a. Working for peace in the Israeli-Palestinian conflict
    b. Supporting self-exiled draft resisters
    c. Working for the freedom of political prisoners
    d. Working for disarmament

59. Which of the following countries has NOT had a terrorist attack since September 11, 2001?
    a. Kenya
    b. Saudi Arabia
    c. Spain
    d. **France**

60. Which of the following is NOT a characteristic of Islam?
    a. Veneration of Jerusalem as the faith's most holy city
    b. Belief in one God
    c. Recognition of Moses as an important prophet
    d. Belief in an after-life

61. The announced aims of political groups that have adopted terrorist tactics include all of the following EXCEPT
    a. Gaining publicity for and recognition of their objectives by the general public and other nations
    b. Drawing the regular armed forces of the government into major battles in order to destroy or capture the army's more sophisticated equipment
    c. Exposing hypocrisy of constitutional governments by provoking violent repression
    d. Developing an identity, building patriotism, and enhancing the morale of the organisation or people they claim to represent

62. Ties between Al Qaida and the current or former governments of all the following countries have been proven to exist EXCEPT:
    a. Afghanistan under the Taliban
    b. Sudan in the early 1990's
    c. Iraq under Saddam Hussein
    d. Iran's current government

63. The IMF (International Monetary Fund) was established after the Second World War to
    a. Safeguard the needs of developing countries
    b. Lend money to national governments to stabilize exchange rates and prevent another global economic depression
    c. Act as a supranational economic institution that would have strong authority over national economic policies
    d. Operate the Marshall Plan and make loans to multinational corporations

64. The "brain drain" refers to the
    a. large-scale migration of highly trained professionals to countries with higher standards of living
    b. lack of opportunity for millions of high school students to receive a university education
    c. reluctance of many governments to employ in responsible positions nationals who have studied and received degrees abroad
    d. lack of financial resources for the development of advanced research facilities in many of the newly independent countries

65. Which of the following statements about the nineteenth-century gold standard is NOT true?
    a. Net balances owed to and by a country were settled by gold movements.
    b. The price of gold was set by the private market rather than by governmental action.
    c. All transactions between one country's residents and another country's residents were made in gold.
    d. For purposes of international trade, the value of a country's currency could be expressed in terms of gold.

66. The worldwide spread of human disease has been linked to all of the following EXCEPT
    a. Advances in transportation technology and associated increases in the speed at which carriers of disease travel
    b. The development of super strains of bacteria and viruses or their vectors as unintended consequences of disease prevention measures
    c. Increased contact among hitherto remote populations through voluntary and involuntary migrations
    d. The evolution of new insect species that sometimes carry human diseases - health

Knowledge of a Specific Region or Country

67. Do you have special knowledge of a country or region outside of the U.S. or North America? ____ Yes ____ No

68. If yes, please select the region OR write in the name of the country or region below under 'Other' about which you have the MOST knowledge.

_____ I do not have any expertise on a country or region outside of my own.

Select one only OR write one in below
Australia/New Zealand
Africa
North Africa
Southern Africa
West Africa
East Africa
Central America
Latin America
South America
The Middle East
Europe
Western Europe
Eastern Europe
Asia
Central Asia
East Asia
Southeast Asia
South Asia

Other, please specify: _____

For the country/region you have selected, please rate your highest level of knowledge in each of the following areas.

69. In relation to where knowledge of the country/region fits within my discipline (e.g., business, journalism, political science, literature), I am

- Familiar enough to have a casual conversation on this topic
- Familiar enough to write a paper on this topic
- Familiar enough to accept employment where knowledge of this area is required
- Familiar enough to give a formal presentation on this topic
- Familiar enough to teach a short course on this topic (with preparation)
- None of the above

70 History of the country/region. I am

- Familiar enough to have a casual conversation on this topic
- Familiar enough to write a paper on this topic
- Familiar enough to accept employment where knowledge of this area is required
- Familiar enough to give a formal presentation on this topic
- Familiar enough to teach a short course on this topic (with preparation)
- None of the above

71. Culture (customs, etiquette, family life, religion, values, behavior, etc.) of the country/region. I am

- Familiar enough to have a casual conversation on this topic
- Familiar enough to write a paper on this topic
- Familiar enough to accept employment where knowledge of this area was required
- Familiar enough to give a formal presentation on this topic
- Familiar enough to teach a short course on this topic (with preparation)
- None of the above

72. Government and domestic politics of the country/region. I am

- Familiar enough to have a casual conversation on this topic
- Familiar enough to write a paper on this topic
- Familiar enough to accept employment where knowledge of this area was required
- Familiar enough to give a formal presentation on this topic
- Familiar enough to teach a short course on this topic (with preparation)
- None of the above

73. Foreign policy of the country/region. I am

- Familiar enough to have a casual conversation on this topic
- Familiar enough to write a paper on this topic
- Familiar enough to accept employment where knowledge of this area was required
- Familiar enough to give a formal presentation on this topic
- Familiar enough to teach a short course on this topic (with preparation)
- None of the above

74. Geography, population, and natural characteristics of the country/region. I am

- Familiar enough to have a casual conversation on this topic
- Familiar enough to write a paper on this topic
- Familiar enough to accept employment where knowledge of this area was required
- Familiar enough to give a formal presentation on this topic
- Familiar enough to teach a short course on this topic (with preparation)
- None of the above

75. Attitudes and Perceptions

Likert Scale: Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree

1.	I'd like to better understand the causes of the various conflicts around the world.
2.	I think about how my behavior might affect people in other countries.
3.	I prefer not to talk to foreigners because it is difficult to understand their English.
4.	It's interesting to talk to people from other countries and cultures and learn more about their customs and values.
5.	I prefer to work with students from my own country on group projects – it makes things easier.
6.	High School students should be required to learn as much about the history and politics of other countries as they do about their own country.
7.	I tend to think of myself as a citizen of the world rather than of just my country.
8.	I don't think knowing about international or intercultural issues will help in my career.
9.	I am concerned about how my consumption of natural resources affects the world.
10.	I think we'll only solve world problems by cooperating more closely with other countries.
11.	I'm not really interested in why foreigners in my country behave differently from us –they've moved here and they need to adapt to the way we do things.
12.	I believe we must go to greater lengths to avoid solving conflicts by warfare.
13.	We could learn a lot from the way they do things in other countries.
14.	Our country shouldn't have to follow the mandates of the United Nations – we know what's best for us.
15.	I would support my brother or sister if he or she married someone from another country or culture.
16.	I think our country should contribute more to help people in poorer countries.
17.	It upsets me when immigrants or international visitors criticize my country.
18.	I like the variety of people, races, languages and cultures – it enriches our world.

76. Cross-Cultural Skills

Likert Scale: Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree

1.	I have worked successfully with international students on group projects.
2.	Even when I don't agree with someone else, I treat them with respect.
3.	I become anxious when I'm the only local student in a group of international students.
4.	Sometimes international students have different communication styles, but we still manage to communicate well.
5.	I find it easy to see issues from the perspective of a person from another culture.
6.	Although there may be some miscommunications when I talk to people from other countries, I almost always manage to get my message across.
7.	It would be difficult for me to become close friends with someone who wasn't from my culture or one with similar values and customs.
8.	I've had an in-depth discussion with someone from another country whose culture is very different from mine.
9.	Although I've spoken with people from other countries, I've never actually been able to form a friendship with someone from outside my country.
10.	I'm willing to change my behavior if it offends someone from another culture, especially if I'm in their country.
11.	I know how to adjust my language to help someone with limited English skills understand better.
12.	I have changed my behavior when interacting with people from another culture in order to fit in or not give offense.
13.	I feel comfortable making small talk with people from other countries.
14.	It is frightening for me to travel to new places, especially out of the country.
15.	I have had real friendships with people from other countries or cultures with very different values or customs.

77. Behaviors

Likert Scale: Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree

1.	I consistently follow international news.
2.	When someone has stereotyped foreigners, I have spoken up.
3.	I donate to charities that work internationally.
4.	I don't usually try to get to know people from other countries.
5.	I've seen people from other cultures do things we wouldn't do here, but I don't think worse of them for that.
6.	I have volunteered for a charity that works internationally.
7.	I don't usually watch TV shows or see movies about other countries and their cultures.
8.	I like to read articles or books about other countries or cultures.
9.	I try to ask people from other cultures about their values and customs.
10.	I put a high priority (or would put a high priority) on international issues when voting for elected officials.
11.	I don't like to read things that are critical of my country.
12.	I've chosen to study a foreign language.
13.	I try (or will try) to become informed about the positions of politicians on international issues so I can be an informed voter.
14.	I have invited an international student to my home.
15.	I have never criticized my own country's foreign policy.
16.	I have made it a priority to enroll in classes that cover international issues.

Appendix C

Permission to Use the Stanford FLOSEM

Date: Thu, 14 Oct 2004 08:33:22 -0700
To: Lindsey Parsons <rparsons91@alumni.wesleyan.edu>
From: Duarte Silva <duarte.silva@stanford.edu>
Subject: Re: use of FLOSEM

Dear Lindsey,

Just give credit to the California Foreign Language Project, Stanford University School of Education, California.

>Thank you. I have a copy from the Padilla and Sung 1997 study. Are they the
>authors of FLOSEM or should the author just be listed as California Foreign
>Language Project, or someone else? Could you give me the correct
>information for the reference?
>
>Lindsey
>
>At 08:40 AM 10/13/2004 -0700, you wrote:
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>>
>>You have permission to use FLOSEM in your study, just reference it in
>>your bibliography. Do you have a copy of the exam?
>>
>>>Dear Dr. Silva,
>>>
>>>I would like to ask permission to use the FLOSEM as a subscale on an
>>>instrument I am developing as part of my doctoral dissertation. The
>>>instrument as a whole is meant to measure the success of
>>>internationalization at colleges and universities. I am doing an Ed.D. at
>>>Griffith University in Brisbane, Australia. The instrument would be used
>>>with students at Griffith University and with students at University of
>>>Georgia.
>>>
>>>Kind Regards,
>>>
>>>R. Lindsey Parsons
>>
>>All the best,
>>
>>Duarte M. Silva, Executive Director
>>California Foreign Language Project
>>Stanford University/School of Education
>>CERAS, Room 125
>>Stanford, CA 94305-3084
>>(650) 849-7955
>>(650) 849-7957(Fax)

Appendix D

Permission to Use Part of the Barrows (1981) Test of Knowledge

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Appendix E

International Knowledge Test – Pilot Test Version I

Correct answers are in bold.

1. Since the Second World War, the gap in per capita income between the world's richest and poorest countries has
   a. Widened
   b. Remained about the same
   c. Narrowed slightly
   d. Narrowed substantially

2. Most of the new nations that came into existence in the thirty-year period after the Second World War are located on which of the following pairs of continents?
   a. Europe and Asia
   b. Asia and Africa
   c. Africa and South America
   d. South American and Asia

3. Since 1950, the percentage of total population in Africa, Asia, and Latin America living in cities has
   a. increased
   b. remained stable
   c. decreased slightly
   d. decreased greatly

4. By their use of the term "neo-colonialism", political leaders in developing countries mean that
   a. Historical relationships have been reversed and power is no longer in the hands of the former colonial powers
   b. Political independence has not brought economic independence to developing countries
   c. New European Union imperialism has replaced traditional Western imperialism
   d. There still exist some former colonies that do not have full independence

5. Islamic terrorist groups, such as Al Qaida, carry out attacks against U.S. and other Western targets for ALL of the following reasons, EXCEPT:
   a. To raise funds and recruit supporters in Islamic countries who will join them in forcing regime change in their own countries
   b. To influence U.S. and Western opinion to demand the removal of U.S. and Western presence in Islamic countries and their support of existing Islamic governments
   c. To demonstrate their hatred of Western institutions such as democracy and freedom
   d. To demonstrate to fellow Muslims that the United States and Western governments are not omnipotent and can be humbled through their activities

6. Which of these issues is NOT a concern of anti-globalisation protestors?
    a. Opposition to the widening gap of wealth
    b. The growing power of multinational corporations over national economic policy
    c. The power of Western popular culture and institutions
    d. The growing power of the United Nations

7. Which of these energy sources causes the least damage in terms of global warming and environmental impact?
    a. Coal
    b. Nuclear power
    c. Natural gas
    d. Solar power

8. Which of the following countries have ratified the Kyoto Protocol to the United Nations Framework Convention on Climate Change?
    I. Australia and the United States
    II. Japan
    III. Russia
    IV. The United Kingdom

    a. All of the above
    b. I, II, and IV only
    c. II, III, and IV only
    d. II and III only

9. The most persuasive argument against livestock production in a densely populated world is that it
    a. Entails feeding food crops that could be directly consumed by people to animals whose meat ultimately yields significantly less protein and calorie value than the food the animals consume
    b. Attaches more importance to producing high quality cuts of meat than to maximising the volume of output
    c. Gives priority to beef cattle when goats, hogs, and chickens could better serve as exports to the rest of the world
    d. Yields meat of high animal fat content when vegetable fats are better and cheaper

10. Genetically modified foodstuffs are opposed by many people because they
    a. Are proven to be harmful to human beings
    b. Potentially eliminate biodiversity
    c. Are more susceptible to pests and diseases
    d. Threaten the trade share of traditional agricultural exporters like the United States

11. Of the 40 million people who are currently infected with HIV/AIDS, what percentage live in sub-Saharan Africa?
    a. 10%
    b. 30%
    c. 65%
    d. 80%

12. Which of the following most accurately reflects the opinion of the majority of scientists on global warming?
    a. The current warming in the atmosphere is due to carbon emissions and can be traced to human activity
    b. The current warming in the atmosphere is due to natural variation in the cyclical climate cycles
    c. It is still uncertain if the current warming in the atmosphere we are measuring is short-term or long term
    d. The current warming in the atmosphere is due to the depletion in the ozone layer

13. Which one of the following countries is NOT party to nuclear non-proliferation treaties?
    a. China
    b. Cuba
    c. Pakistan
    d. The United States

14. Which of the following sports is the most popular worldwide?
    a. Baseball
    b. Soccer
    c. Tennis
    d. Basketball

15. Which of the following nations does NOT have an important film export industry?
    a. Saudi Arabia
    b. India
    c. France
    d. Poland

16. What is the largest religious or ethnic group in Iraq?
    a. Kurds
    b. Sunnis
    c. Shiites
    d. Turkmen

17. Which of the following countries has NOT had a terrorist attack since September 11, 2001?
    a. Indonesia
    b. Saudi Arabia
    c. Spain
    d. Switzerland

18. As of September, 2005, war crimes tribunals have been established to try human rights abuses committed in all but one of the following countries? For which country have these tribunals not yet been established?
    a. Cambodia
    b. Rwanda
    c. Sudan
    d. Yugoslavia

19. Recent deaths in Sudan have been characterized by some persons as "genocide." This term was originally invented to describe the
    a. The Cambodian Killing Fields in the 1970's
    b. Nazi extermination of Jews and others during the Second World War
    c. The deaths of more than half a million Chinese following Mao Zedong's Great Leap Forward
    d. Italian subjection of Ethiopia in the mid-1930's

20. Which of the following is NOT a characteristic of Islam?
    a. Belief in an after-life
    b. Monotheism
    c. Recognition of Moses as an important prophet
    d. Veneration of Jerusalem as the faith's most holy city

21. Which of the following entities is least representative of the new forces of globalisation?
    a. The United Nations
    b. Multinational corporations
    c. International nongovernmental organizations
    d. Transnational terrorist groups

22. Ties are known to exist between all of the following terrorist groups and current or former governments/leaders EXCEPT:
    a. Al Qaida and the Taliban
    b. Iran and HAMAS
    c. Al Qaida and Saddam Hussein
    d. Syria and Palestine Islamic Jihad

23. GATT (General Agreement on Tariffs and Trade), IMF (International Monetary Fund), and the World Bank were established after the Second World War to
    a. Promote an open international economic system characterized by free trade and convertible currencies
    b. Safeguard the needs of developing countries
    c. Act as supranational economic institutions that would have strong authority over national economic policies
    d. Operate the Marshall Plan and make loans to multinational corporations

Appendix F

International Knowledge Test – Pilot Test Version II

Correct answers are in bold.

Please circle the correct answer.

1. Which of the following best characterised the behaviour of the United States and the Soviet Union during the era of détente in the 1970's?
   I. Joint cooperation in solving economic problems in developing countries
   II. Greater restraint on both sides during international crises
   III. Movement toward improved economic relations
   IV. Suspension of the arms race

   a. I and III only
   b. I and IV only
   c. **II and III only**
   d. II, III, and IV only

2. Most of the new nations that gained their independence from colonial powers in the thirty-year period after the Second World War are located on which of the following pairs of continents?
   a. Europe and Asia
   b. **Asia and Africa**
   c. Africa and South America
   d. South America and Asia

3. Since 1950, the percentage of total population in Africa, Asia, and Latin America living in cities has
   a. increased
   b. remained stable
   c. decreased slightly
   d. decreased greatly

4. By their use of the term "neo-colonialism", political leaders in developing countries mean that
   a. Historical relationships have been reversed and power is no longer in the hands of the former colonial powers
   b. Political independence has not brought economic independence to developing countries
   c. New European Union imperialism has replaced traditional Western imperialism
   d. There still exist some former colonies that do not have full independence

5. In its official interpretation of United States foreign policy, Soviet doctrine tended to emphasise which of the following arguments?
    a. The United States is a democracy; consequently, its foreign policy is driven by the aggressive aims of the masses.
    b. The United States is a state under the control of monopoly capitalists, and as such, it is an imperialist power.
    c. The United States is a disguised dictatorship; therefore, its foreign policy reflects the territorial ambitions of its military leaders.
    d. Internal divisions weaken the United States; hence, it is a paper tiger and can safely be defied.

6. Which of these energy sources causes the least damage in terms of global warming and environmental impact?
    a. Hydroelectric power
    b. Nuclear power
    c. Natural gas
    d. Solar power

7. Which of the following countries have NOT ratified the Kyoto Protocol to the United Nations Framework Convention on Climate Change?
    a. The United States and Australia
    b. Japan
    c. The United Kingdom and France
    d. Russia

8. The primary argument against livestock production in a densely populated world is that it
    a. Entails feeding crops to animals whose meat ultimately yields significantly less protein and calories than the food the animals consume
    b. Attaches more importance to producing high quality cuts of meat than to maximising the volume of output
    c. Gives priority to beef cattle when goats, hogs, and chickens could better serve as exports to the rest of the world
    d. Yields meat of high animal fat content when vegetable fats are better and cheaper

9. Genetically modified foodstuffs are opposed by many people because they
    a. Are proven to be harmful to human beings
    b. Potentially eliminate biodiversity
    c. Are more susceptible to pests and diseases
    d. Threaten the trade share of traditional agricultural exporters like the United States

10. Since the Second World War, ethnic or religious groups that have engaged in violent conflict with one another include which of the following?
    I. Jews and Arabs
    II. Hindus and Muslims
    III. Christians and Muslims
    IV. Catholics and Protestants

    a. I only
    b. I and IV only
    c. II and III only
    d. **I, II, III, and IV**

11. Rapid developments in the weapons technologies of advanced industrial societies have had, in general, which of the following effects upon and among developing countries?
    a. An increase in arms competition but a reduction in military expenditures through the acquisition of weapons yielding "more bang for a buck"
    b. Stabilisation of arms competition by the acquisition of weapons that, though costly, are less vulnerable, more reliable, and more easily maintained by developing countries themselves
    c. Increases in arms competition, arms costs, and reliance upon arms suppliers
    d. The development of high technology weapons industries in developing countries

12. Which of the following organisations promulgated the Universal Declaration of Human Rights?
    a. The League of Nations in 1919 following the First World War
    b. The World Council of Churches in 1936 following the outbreak of the Spanish Civil War
    c. The United Nations in 1948 following the Second World War
    d. Amnesty International in 1972 following a terrorist attack at the Olympic Games

13. Which of the following sports is the most popular worldwide?
    a. Baseball
    b. Soccer
    c. Tennis
    d. Basketball

14. Which of the following nations does NOT have an important film export industry?
    a. Saudi Arabia
    b. India
    c. France
    d. Poland

15. In the seventeenth and eighteenth centuries significant numbers of black slaves were brought from Africa to all of the following EXCEPT
    a. British North America
    b. The Caribbean Islands
    c. Brazil
    d. Argentina

16. Which of the following countries has NOT had a terrorist attack since September 11, 2001?
    a. Kenya
    b. Saudi Arabia
    c. Spain
    d. **France**

17. In 1977 Amnesty International won the Nobel Peace Prize for
    a. Working for peace in the Israeli-Palestinian conflict
    b. Supporting self-exiled draft resisters
    c. Working for the freedom of political prisoners
    d. Working for disarmament

18. Since the Second World War, most international migration has been from the
    a. More developed to the less developed countries
    b. More developed to the more developed countries
    c. Less developed to the less developed countries
    d. Less developed to the more developed countries

19. Which of the following is NOT a characteristic of Islam?
    a. Veneration of Jerusalem as the faith's most holy city
    b. Belief in one God
    c. Recognition of Moses as an important prophet
    d. Belief in an after-life

20. The announced aims of political groups that have espoused terrorist tactics include all of the following EXCEPT
    a. gaining publicity for and recognition of their objectives by the general public and other nations
    b. drawing the regular armed forces of the government into major battles in order to destroy or capture the army's more sophisticated equipment
    c. exposing hypocrisy of constitutional governments by provoking violent repression
    d. developing an identity, building patriotism, and enhancing the morale of the organisation or people they claim to represent

21. Ties between Al Qaida and the current or former governments of all the following countries have been proven to exist EXCEPT:
    a. Afghanistan under the Taliban
    b. Sudan in the early 1990's
    c. Iraq under Saddam Hussein
    d. Iran's current government

22. The IMF (International Monetary Fund) was established after the Second World War to
    a. Safeguard the needs of developing countries
    b. Lend money to national governments to stabilise exchange rates and prevent another global economic depression
    c. Act as a supranational economic institution that would have strong authority over national economic policies
    d. Operate the Marshall Plan and make loans to multinational corporations

23. The "brain drain" refers to the
    a. large-scale migration of highly trained professionals to countries with higher standards of living
    b. lack of opportunity for millions of high school students to receive a university education
    c. reluctance of many governments to employ in responsible positions nationals who have studied and received degrees abroad
    d. lack of financial resources for the development of advanced research facilities in many of the newly independent countries

24. Which of the following statements about the nineteenth-century gold standard is NOT true?
    a. All transactions between one country's residents and another country's residents were made in gold.
    b. The price of gold was set by the private market rather than by governmental action.
    c. Net balances owed to and by a country were settled by gold movements.
    d. For purposes of international trade, the value of a country's currency could be expressed in terms of gold.

25. Which of the following lists is composed entirely of members of OPEC (Organization of Petroleum Exporting Countries)?
    a. Iran, Iraq, Kuwait, Egypt
    b. Great Britain, Norway, Mexico, United Arab Emirates
    c. Syria, Lebanon, Libya, Ethiopia
    d. Venezuela, Indonesia, Nigeria, Saudi Arabia

26. Which of the following statements about the depletion of natural resources is most correct?
    a. Worldwide population growth is the principal factor threatening to deplete resources.
    b. Because of their population growth, developing countries account for a disproportionate share of the increase in demands on resources.
    c. Both increasing rates of per capita consumption and population growth are threatening to deplete resources.
    d. Technological change is the principal factor threatening to deplete resources.

27. The worldwide spread of human disease has been linked to all of the following EXCEPT
    a. advances in transportation technology and associated increases in the speed at which carriers of disease travel
    b. the development of super strains of bacteria and viruses or their vectors as unintended consequences of disease prevention measures
    c. increased contact among hitherto remote populations through voluntary and involuntary migrations
    d. the evolution of new insect species that sometimes carry human diseases

Appendix G

Biographies of Content Area Experts

Content Area Experts from Australia

Shanton Chang received his PhD at Monash University and currently serves as a Senior Lecturer in change management and information systems at the University of Melbourne in Australia. His primary research areas are in the management of multicultural workplaces and the impact of culture on the design and implementation of information systems, and broadband technology adoption and appropriation. He has a Bachelor of Commerce from the University of Western Australia. He has been involved in intercultural training programs for managers and employees across the higher education, union, and private sectors in Australia and has numerous publications and presentations on multicultural issues. In 2000, he was given the IDP Award for Outstanding Contribution to International Education in Australia. He has been involved in the international education industry in Australia for more than a decade, as a student, a marketer, a course advisor, and currently as an academic.

Barbara Giorgio is a practising psychologist and an academic adviser to international nursing students at Australian Catholic University. She has Bachelor's degrees in Education and Psychology (Honors), a Diploma of Education in Secondary Teaching, Graduate Diplomas in the Teaching of English as a Second Language and Religious Education, and a Master's of Education in Linguistics. She has written numerous papers in the fields of literature, language, and psychology and has taught in secondary and tertiary education for 25 years.

Betty Leask is the Dean of Teaching and Learning in the Division of Business at the City West Campus of the University of South Australia. She has a BA in English and Classical Studies from the University of Adelaide, a Master of Applied Linguistics from Macquarie University and an EdD from the University of South Australia in the area of the internationalisation of higher education, which drew on research conducted in Australia and Hong Kong. She has worked in both the secondary and tertiary sectors in Australia and Europe. She has numerous publications and presentations on internationalisation of the curriculum, transnational education, teaching international students, intercultural education, and the application of information and communication technologies to assist and enrich learning across cultures.

Content Area Experts from the U.S.

Joseph Brockington is currently the Associate Provost for International Programs and Director of the Center for International Programs at Kalamazoo College in Kalamazoo, Michigan, USA. In his position, one of his roles is to provide leadership for the college's comprehensive internationalisation initiative as part of the American Council on Education's *Internationalization Laboratory*. In previous positions, he served as Associate Director of the Center for International Programs and Professor of German Language and Literature at Kalamazoo College. He also spent a year as a Visiting Professor of German, Department of Literary Studies, University of Hamburg, Germany. He has a BA and MA in German and a PhD in German Language and Literature from Michigan State University. He is a Member of the Advisory Committee for the American Council on Education's Internationalization Collaborative, a Member of the Executive Committee of the Association of International Education Administrators, and was a Member of the Founding Board of the Forum on Education Abroad. He has numerous publications and presentations in the areas of study abroad, university internationalization, intercultural communication, German Literature, East Africa, and experiential education.

Amy Henry is the Director of Education Abroad at the Georgia Institute of Technology (Georgia Tech) in Atlanta, Georgia, USA. She has a BA in Sociology with a minor in French from the College of William and Mary, and an MS in International Affairs from Georgia Tech. She has received extensive training in intercultural communication, including course work during her Master's degree, participation in the Summer Institute for Intercultural Communication, and participation in many training sessions provided by NAFSA: Association of International Educators and other organizations. She is certified to administer the Intercultural Development Inventory (IDI), and is a primary IDI administrator for a large research study being conducted by the Georgia Tech Offices of Assessment and International Education. She received a Fulbright grant to study higher education in Germany in 2004. She has studied and worked abroad in France and travelled to 18 other countries on four continents. She is a member of the NAFSA Trainer Corps and has presented at various regional, state and national conferences on topics including study abroad, intercultural communication training for staff on college campuses, and intercultural competence. She was one of five international educators in the state of Georgia who completed a grant project to develop materials and conduct training in intercultural communication for the 35 public colleges and universities in 2006-2007.

Daniel Paracka has been the Director of International Services and Programs at Kennesaw State University in Kennesaw, Georgia, USA since 2003. He spent the previous 11 years working with international students and scholars and students studying abroad in progressively more responsible positions at Georgia State University and Kennesaw State University. Previous to that he spent a year and a half teaching English in China and two years as a Peace Corps volunteer in Sierra Leone. He has a BA in Business and Economics from St. Andrews Presbyterian College, a MS in Counselling from West Chester University, and a PhD in Education Policy Studies from Georgia State University. He has presented over 25 times at state, regional, and national conferences on cross-cultural issues and issues pertaining to study abroad and international students and scholars. He served as Chair of NAFSA Region VII and Chair of the University System of Georgia's Asia Council, as well as in numerous other leadership positions in professional organizations in Georgia. While under his leadership, Kennesaw State University was selected in a national competition by the American Council on Education to participate in their *Global Learning for All* project, whose purpose was to aid in the internationalisation of the participating universities.

Richard Reiff retired in 2001 from his position as the Interim Associate Provost for International Education at the University of Georgia (UGA) in Athens, Georgia, USA, where he had spent 28 years in progressively more responsible positions in the field of international education, including Executive Director of International Education and System Coordinator for Study Abroad for the University System of Georgia. For eight of his years at UGA he served as the Executive Director of the Phi Beta Delta Honor Society for International Scholars, for two as the President of NAFSA, Association of International Educators, for six as the Chairman of the International Intercultural Studies Program at UGA, and for 11 on the International Affairs Advisory Committee at UGA. He has a BA from Stetson University in History, an MA in Counselling from Stetson University, and an EdD from the University of Georgia. He has received two Fulbright Grants, wrote or edited over 30 professional publications, chaired and/or presented at over 100 sessions at professional meetings, and conducted numerous consultations on internationalising the campus. During the course of his work, he has travelled to 46 different countries on five continents.

Appendix H

International Attitudes and Perceptions Scale – Pilot Test

Please rate your level of agreement with the statements below on the following scale:
SD=Strongly Disagree | D=Disagree | N=Neutral | A=Agree | SA=Strongly Agree

1. SD | D | N | A | SA	There are both good and bad things about my country and culture.
2. SD | D | N | A | SA	I'd like to better understand the causes of the various conflicts around the world.
3. SD | D | N | A | SA	I think about how my behavior might affect people in other countries.
4. SD | D | N | A | SA	I prefer not to talk to foreigners because it is difficult to understand their English.
5. SD | D | N | A | SA	It's interesting to talk to people from other countries and cultures and learn more about their customs and values.
6. SD | D | N | A | SA	Our country shouldn't have to follow the mandates of the United Nations – we know what's best for us.
7. SD | D | N | A | SA	I prefer to work with students from my own country on group projects – it makes things easier.
8. SD | D | N | A | SA	No human being should be subjected to torture or to cruel, inhuman or degrading treatment or punishment, no matter what the crime.
9. SD | D | N | A | SA	High School students should be required to learn as much about the history and politics of other countries as they do about their own country.
10. SD | D | N | A | SA	I tend to think of myself as a citizen of the world rather than of just this country.
11. SD | D | N | A | SA	I don't think knowing about international or intercultural issues will help in my career.
12. SD | D | N | A | SA	I am concerned about how my consumption of natural resources affects the world.
13. SD | D | N | A | SA	People in developed countries should make decisions for the whole world because they have shown that they know how to get things done.
14. SD | D | N | A | SA	I think we'll only solve world problems by cooperating more closely with other countries.
15. SD | D | N | A | SA	I like to keep up with international news.
16. SD | D | N | A | SA	I realize I see things the way I do because of the culture in which I was raised.
17. SD | D | N | A | SA	Universities should <u>not</u> require students to take courses on international issues
18. SD | D | N | A | SA	I'm not really interested in why foreigners in my country behave differently from us –they've moved here and they need to adapt to the way we do things.
19. SD | D | N | A | SA	I believe we must go to greater lengths to avoid solving conflicts by warfare.
20. SD | D | N | A | SA	I am distrustful of racial or ethnic stereotypes because I've met many people who do not fit the stereotype.
21. SD | D | N | A | SA	We shouldn't give humanitarian aid to many foreign countries because it will be wasted or stolen by their corrupt governments.
22. SD | D | N | A | SA	We could learn a lot from the way they do things in other countries.

23. SD | D | N | A | SA	I feel apathetic when I hear or read about people in other countries being hurt in wars or natural disasters – it's too far away and I have no relationship with them.
24. SD | D | N | A | SA	Some of the ways in which people behave in other cultures just don't make sense.
25. SD | D | N | A | SA	I would support my brother or sister if he or she married someone from another country or culture.
26. SD | D | N | A | SA	I think our country should contribute more to help people in poorer countries.
27. SD | D | N | A | SA	It upsets me when immigrants or international visitors criticize my country. If they don't like it, they should leave.
28. SD | D | N | A | SA	I like the variety of people, races, languages and cultures – it enriches our world.

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Appendix I

Cross-Cultural Skills Scale – Pilot Test

Please rate your level of agreement with the statements below on the following scale:
SD=Strongly Disagree | D=Disagree | N=Neutral | A=Agree | SA=Strongly Agree

1. SD | D | N | A | SA	I have had disagreements or miscommunications with people from other countries that I couldn't resolve.
2. SD | D | N | A | SA	I have worked successfully with international students on group projects.
3. SD | D | N | A | SA	Even when I don't agree with someone else, I treat them with respect.
4. SD | D | N | A | SA	Sometimes international students have different communication styles, but we still manage to communicate well.
5. SD | D | N | A | SA	I find it easy to see issues from the perspective of a person from another culture.
6. SD | D | N | A | SA	I have had friends from cultures with similar values to mine, but I have never made friends with someone from a culture with very different values.
7. SD | D | N | A | SA	Although there may be some miscommunications when I talk to people from other countries, I almost always manage to get my message across.
8. SD | D | N | A | SA	I become anxious when I'm the only local student in a group of international students.
9. SD | D | N | A | SA	It would be difficult for me to become close friends with someone who wasn't from my culture or one with similar values and customs.
10. SD | D | N | A | SA	I've had an in-depth discussion with someone from another country whose culture is very different from mine.
11. SD | D | N | A | SA	Although I've spoken with people from other countries, I've never actually been able to form a friendship with someone from outside my country.
12. SD | D | N | A | SA	I'm willing to change my behavior if it offends someone from another culture, especially if I'm in their country.
13. SD | D | N | A | SA	I know how to adjust my language to help someone with limited English skills understand better.
14. SD | D | N | A | SA	I have changed my behavior when interacting with people from another culture in order to fit in or not give offense.
15. SD | D | N | A | SA	I feel comfortable making small talk with people from other countries.
16. SD | D | N | A | SA	It is frightening for me to travel to new places, especially out of the country.
17. SD | D | N | A | SA	I have had real friendships with people from other countries or cultures with very different values or customs.

Appendix J

International Behaviours Scale – Pilot Test

Please rate your level of agreement with the statements below on the following scale:
SD=Strongly Disagree | D=Disagree | N=Neutral | A=Agree | SA=Strongly Agree

1. SD | D | N | A | SA	I consistently follow international news.
2. SD | D | N | A | SA	When someone has stereotyped foreigners, I have spoken up.
3. SD | D | N | A | SA	I donate to charities that work internationally.
4. SD | D | N | A | SA	I don't usually try to get to know people from other countries.
5. SD | D | N | A | SA	I've seen people from other cultures do things we wouldn't do here, but I don't think worse of them for that.
6. SD | D | N | A | SA	I have volunteered for a charity that works internationally.
7. SD | D | N | A | SA	I like to read articles or books about other countries or cultures.
8. SD | D | N | A | SA	I try to ask people from other cultures about their values and customs.
9. SD | D | N | A | SA	I put a high priority (or would put a high priority) on international issues when voting for elected officials.
10. SD | D | N | A | SA	I don't like to read things that are critical of my country.
11. SD | D | N | A | SA	I try to befriend people from other countries.
12. SD | D | N | A | SA	I've chosen to study a foreign language.
13. SD | D | N | A | SA	I try (or will try) to become informed about the positions of politicians on international issues so I can be an informed voter.
14. SD | D | N | A | SA	I have invited an international student to my home.
15. SD | D | N | A | SA	At times, I use racial slurs to describe people from other countries.
16. SD | D | N | A | SA	I have never criticized my own country's foreign policy.
17. SD | D | N | A | SA	I don't usually watch TV shows about other countries and their cultures.
18. SD | D | N | A | SA	I am planning a career that would help people outside this country.
19. SD | D | N | A | SA	I have made it a priority to enroll in courses that cover international issues.

Appendix K

Percentage of Responses on Scale of International Attitudes and Perceptions

Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I'd like to better understand the causes of the various conflicts around the world.	1.4%	3.7%	17.7%	51.5%	25.8%
2. I think about how my behaviour might affect people in other countries.	5.3%	18.6%	30.3%	34.8%	11.1%
3. I prefer not to talk to foreigners because it is difficult to understand their English.	37.3%	40.9%	14.6%	5.7%	1.4%
4. It's interesting to talk to people from other countries and cultures and learn more about their customs and values.	1.0%	1.5%	8.8%	42.5%	46.2%
5. I prefer to work with students from my own country on group projects – it makes things easier.	12.7%	27.2%	32.9%	19.3%	7.8%
6. High School students should be required to learn as much about the history and politics of other countries as they do about their own country.	4.9%	17.6%	26.7%	33.8%	17.1%
7. I tend to think of myself as a citizen of the world rather than of just my country.	5.1%	26.0%	32.8%	24.6%	11.4%
8. I don't think knowing about international or intercultural issues will help in my career.	37.2%	42.9%	12.9%	5.9%	1.1%
9. I am concerned about how my consumption of natural resources affects the world.	2.1%	11.1%	23.6%	41.2%	22.1%
10. I think we'll only solve world problems by cooperating more closely with other countries.	1.1%	3.0%	14.2%	48.8%	32.9%
11. I'm not really interested in why foreigners in my country behave differently from us – they've moved here and they need to adapt to the way we do things.	18.2%	35.2%	23.7%	17.2%	5.7%
12. I believe we must go to greater lengths to avoid solving conflicts by warfare.	2.1%	4.7%	17.0%	37.4%	38.8%
13. We could learn a lot from the way they do things in other countries.	0.9%	5.5%	24.3%	50.7%	18.6%
14. Our country shouldn't have to follow the mandates of the United Nations – we know what's best for us.[a]	16.8%	37.8%	29.8%	10.8%	4.7%
15. I would support my brother or sister if he or she married someone from another country or culture.[b]	0.6%	0.7%	7.2%	28.2%	63.2%
16. I think our country should contribute more to help people in poorer countries.	2.5%	10.2%	25.6%	37.1%	24.6%
17. It upsets me when migrants or international visitors criticise my country.	3.0%	12.6%	22.6%	38.9%	22.9%
18. I like the variety of people, races, languages and cultures – it enriches our world.[a]	1.5%	1.7%	12.2%	43.4%	41.2%

[a]Question removed during factor analysis. [b]Question removed as a univariate outlier.

Appendix L

Percentage of Responses on Scale of Cross-Cultural Skills

Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I have worked successfully with international students on group projects.	2.2%	7.2%	29.5%	46.3%	14.8%
2. Even when I don't agree with someone else, I treat them with respect. [a]	0.2%	1.2%	8.3%	63.7%	26.6%
3. I become anxious when I'm the only local student in a group of international students.	12.6%	36.2%	28.7%	17.5%	5.0%
4. Sometimes international students have different communication styles, but we still manage to communicate well.	0.6%	4.4%	21.8%	62.9%	10.4%
5. I find it easy to see issues from the perspective of a person from another culture.	0.4%	10.5%	31.8%	49.4%	8.0%
6. Although there may be some miscommunications when I talk to people from other countries, I almost always manage to get my message across.	0.4%	3.9%	17.5%	67.0%	11.1%
7. It would be difficult for me to become close friends with someone who wasn't from my culture or one with similar values and customs.	31.8%	45.3%	13.6%	8.7%	0.7%
8. I've had an in-depth discussion with someone from another country whose culture is very different from mine.	2.0%	8.8%	16.8%	38.3%	34.1%
9. Although I've spoken with people from other countries, I've never actually been able to form a friendship with someone from outside my country.	34.9%	40.0%	14.4%	9.2%	1.5%
10. I'm willing to change my behaviour if it offends someone from another culture, especially if I'm in their country.	1.2%	2.0%	15.3%	49.1%	32.4%
11. I know how to adjust my language to help someone with limited English skills understand better.	1.0%	4.5%	17.2%	54.0%	23.3%
12. I have changed my behaviour when interacting with people from another culture in order to fit in or not give offence.	2.0%	7.0%	25.3%	52.5%	13.2%
13. I feel comfortable making small talk with people from other countries.	0.6%	6.1%	15.4%	57.1%	20.8%
14. It is frightening for me to travel to new places, especially out of the country. [b]	31.4%	36.1%	18.6%	11.4%	2.5%
15. I have had real friendships with people from other countries or cultures with very different values or customs.	2.4%	9.6%	22.5%	37.0%	28.5%

[a]Question removed as a univariate outlier. [b]Question removed during factor analysis.

Appendix M

Percentage of Responses on Scale of International Behaviours

Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I consistently follow international news.	6.6%	25.6%	32.4%	26.6%	8.8%
2. When someone has stereotyped foreigners, I have spoken up.	1.6%	13.4%	26.3%	46.4%	12.3%
3. I donate to charities that work internationally.	6.5%	21.3%	32.3%	32.5%	7.4%
4. I don't usually try to get to know people from other countries.	21.9%	49.6%	20.0%	8.2%	0.4%
5. I've seen people from other cultures do things we wouldn't do here, but I don't think worse of them for that.	1.7%	9.6%	25.1%	48.9%	14.6%
6. I have volunteered for a charity that works internationally.	10.4%	36.9%	26.0%	20.1%	6.5%
7. I don't usually watch TV shows or see movies about other countries and their cultures.	27.7%	49.7%	13.7%	7.6%	1.2%
8. I like to read articles or books about other countries or cultures.	1.3%	8.4%	23.5%	48.4%	18.4%
9. I try to ask people from other cultures about their values and customs.	1.4%	9.7%	24.9%	48.0%	16.0%
10. I put a high priority (or would put a high priority) on international issues when voting for elected officials.	3.4%	15.2%	36.9%	33.7%	10.8%
11. I don't like to read things that are critical of my country.[a]	9.6%	39.9%	29.9%	16.8%	3.8%
12. I've chosen to study a foreign language.	12.7%	26.2%	20.1%	26.9%	14.1%
13. I try (or will try) to become informed about the positions of politicians on international issues so I can be an informed voter.	3.8%	9.4%	28.9%	43.7%	14.2%
14. I have invited an international student to my home.	7.6%	26.3%	18.3%	28.8%	19.1%
15. I have never criticised my own country's foreign policy.	26.0%	38.7%	25.8%	8.1%	1.3%
16. I have made it a priority to enrol in classes that cover international issues.	10.4%	32.2%	36.2%	14.2%	7.0%

[a]Question removed during factor analysis.

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