

Exploring the Impact of Study Abroad on Students' Intercultural Communication Skills: Adaptability and Sensitivity

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This study answers a need for outcome assessment in study abroad by exploring the intercultural communication skills of study abroad and on campus students. Through a pretest and posttest of two specific skills, intercultural adaptability and intercultural sensitivity, study abroad students were compared to students who stay on campus to measure their change (if any) during the course of the semester. Using the Cross-Cultural Adaptability Inventory and the Intercultural Sensitivity Index, the two student groups individually assessed their strengths and weaknesses through a self-reported inventory at the beginning and end of the fall 2002 academic semester. Results confirmed the hypothesis that students who study abroad exhibit a greater change in intercultural communication skills after their semester abroad than students who stay on campus. Results also indicated that exposure to various cultures was the greatest predictor of intercultural communication skills.

Keywords: *intercultural communication; study abroad; cross-cultural adaptability; cross-cultural sensitivity*

International travel and research have long been a part of the liberal arts education tradition, and today, “in their goals and mission statements, most colleges and universities include some version of ‘knowledge of other cultures’ as a component of a liberal education” (Hopkins, 1999, p. 36). However, studying abroad, while seeming to fit this tradition and fulfill these mission statements, has often been considered an experience reserved for the wealthy and tangential to a college education, with little research to demonstrate its applicability to skills and qualities needed for success in today’s world.

In today’s world of higher education, demonstrated outcomes and applicability to the real world are vital to the sustainment of academic programs.

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Today's students and their parents are more inclined than ever to hold colleges and universities to account for the quality of the educational opportunities they provide—educational consumers want assurances that institutions will provide the knowledge, skills and awareness that will contribute directly to success after graduation. (Vande Berg, 2001, p. 31)

Furthermore, a new trend in academics called *outcome assessment* has shifted the focus of education toward “competency-based education that stresses learner outcomes over teacher input” (Fantini, Arias-Galicia, & Guay, 2001, p. 4). This type of assessment forces educators to evaluate what students are learning, what skills they are developing, and how these skills translate into knowledge needed for jobs and for life.

International education and study abroad is just one area of education that is progressing toward competency-based evaluations and exams to measure the outcomes of the experience. Vande Berg (2001) wrote, “International educators have during the past decade become increasingly aware of the need to identify and measure the learning outcomes of students participating in study abroad programs” (p. 31).

Without concrete evidence of values and outcomes, study abroad experiences will lack the credence afforded other educational programs. More importantly, measuring outcomes of study abroad should be conducted in light of the skills that are needed for success in today's world. Marcum (2001) suggested, “In a world where our interest in global issues only continues to grow, we must view study abroad from a far broader perspective” (p. B7).

The skills needed for success in today's world differ from those needed even 15 years ago. An increasing internationalization of campuses, companies, and communities is certainly one of the major developments in the recent past.

Young people today are also a part of an increasingly educated population. Overall, immediate college enrollment rates of high school completers increased from 49% to 66% between 1972 and 1998 (National Center for Education Statistics, 2000).

Furthermore, college graduates are facing a capricious job market, one where they can be expected to change careers—not jobs—six times in their life and will retire from jobs that do not even presently exist. In fact, rather than looking for specific training in a single field, many employers today are looking for communication skills as their top priority in employees (Job Outlook, 2000).

Consequently, college students today need an education that provides them with skills—such as communication skills—that will allow them to compete in a global market with an increasingly educated population. The question raised then is whether a study abroad experience helps students acquire such skills. Do

study abroad experiences help students develop communication skills needed to work in a global community?

RESEARCH FOCUS

This study seeks to identify and measure one possible outcome of study abroad: the improvement of intercultural communication skills. For the purposes of this research, a study abroad experience was defined as a semester-long (4-month) stay in a foreign country within the context of a university or academic setting. No qualifications were made as to the housing situation, host country language, course instruction language, or degree of integration with host country nationals. As Hopkins (1999) stated,

Study-abroad programs take many forms, but all share the characteristic that, by their very nature, they provide students with a healthy dose of experiential learning. Immersing oneself in another culture provides new opportunities for learning-by-doing, virtually twenty-four hours a day. (p. 36)

Although the study abroad programs may differ in varying degrees of immersion, it is presumed that spending 4 months abroad will provide ample opportunity for participants to interact with people of the local culture.

IDENTIFYING INTERCULTURAL COMMUNICATION SKILLS

In reviewing the research on intercultural communication skills and competency, several key elements recur. Flexibility and open-mindedness is one notable trait that many theorists include in their lists. Adler (as cited in Dignes, 1983) wrote about flexibility in the notion of the multicultural man who is in constant personal transition. According to Dignes (1983), Bochner wrote about cognitive flexibility, whereas Gudykunst, Hammer, and Wiseman (as cited in Dignes, 1983) wrote about it as open-mindedness to new ideas. Brislin (as cited by Dignes, 1983) included it as openness to change. Ting-Toomey (1999) wrote about the need for high tolerance of ambiguity.

A second trait identified by many researchers is cultural empathy and non-judgmental perceptiveness. Cleveland, Mangone, and Adams (as cited in Dignes, 1983) identified cultural empathy as imperative to intercultural effectiveness. Bochner (as cited in Dignes, 1983) wrote about the mediating man, who is capable of believing in the community of mankind without judgment. According to Dignes (1983), Gardner emphasized the "value of all men" (p. 184) and having intuition sensitivity toward the other, and Gudykunst et al. (as cited in Dignes, 1983) identified an important trait they called intercultural

empathy. Ting-Toomey (1999) expressed it as the ability to respectfully observe and react to the other's communication process through verbal and nonverbal sensitivity. Indeed, many intercultural communication theorists deem this perceptual acuity to observe and interpret the other's actions through a broad cultural lens as important.

Personal strength and stability is mentioned in different forms as an important trait for successful intercultural communicators. According to Dignes (1983), Adler wrote that the multicultural person is grounded in his or her own cultural reality, and Gardner (as cited in Dignes, 1983) called it personal stability or a high degree of integration. Brislin (as cited in Dignes, 1983) included personality strength or positive self-esteem in his listing of personal traits. Ting-Toomey (1999) wrote that an internal locus of control or inner-directed drives and motivations is a personality skill that aids in intercultural communication success. These ideas can be summed up as personal autonomy.

Finally, resourcefulness and ability to deal with stress recur throughout intercultural communication competency research. Guthrie (as cited in Dignes, 1983) described this as the ability to create a new set of social rewards to sustain one's behavior. According to Dignes (1983), Brislin included this trait, calling it problem-solving abilities. Ting-Toomey (1999) wrote that one key factor for intercultural success is the ability to manage psychological stress. Thus, the emotional resilience to face failures, confusions, and misunderstandings and to continue working toward positive interactions is identified by many as an important component of effective intercultural communication skills.

Kim (1991) seems to summarize all of these findings with the hypothesis that intercultural communication competency results from adaptability, or

the individual's capacity to suspend or modify some of the old cultural ways, to learn and accommodate some of the new cultural ways, and to creatively find ways to manage the dynamics of cultural difference/unfamiliarity, intergroup posture, and the accompanying stress. (p. 268)

More precisely, Kim suggested that there are three dimensions that relate to this concept of cross-cultural adaptability or intercultural communication competence: the cognitive dimension (an individual's interpretive mechanisms or structures that assign meaning to messages), the affective dimension (an individual's motivation or willingness to accommodate intercultural encounters), and the behavioral dimension (an individual's abilities to be flexible and resourceful in using his or her cognitive and affective skills). Essentially, effective intercultural communicators must have an understanding of cultural communication differences, an ability to overcome those barriers, and a desire to use those skills.

Similar to Kim's (1991) findings, Ting-Toomey's (1999) definition of trans-cultural competence (TCC) is an apt summary including two essentials to effective intercultural interactions—adaptability and sensitivity. Ting-Toomey explained that TCC is a process whereby communicators learn to “mutually adapt to each other's behaviors appropriately and flexibly” (p. 261) by respectful observing and reacting to other's communication process.

Having identified these two elements, adaptability and sensitivity, as the basis of intercultural communication skills, it was determined that instruments measuring cross-cultural adaptability and intercultural sensitivity should be used and correlated to effective intercultural communication skills. The Cross-Cultural Adaptability Inventory (CCAI) and the Global Competency and Intercultural Sensitivity Index (ISI) were selected as two key instruments to measure these skills.

The CCAI is a “training instrument designed to provide information to an individual about his or her potential for cross-cultural effectiveness” (Kelley & Meyers, 1995, p. 1). The CCAI is intended to be used as a part of cross-cultural training sessions to help individuals identify their strengths and weaknesses for cross-cultural effectiveness and adaptability. One of the important purposes of this instrument is to help participants “improve skills in interacting with people from other cultures” after they have identified their strengths and weaknesses through the self-survey (Kelley & Meyers, 1995, p. 2). Kelley and Meyers (1995) presumed that there are four skill areas that predict success in cross-cultural adaptability and furthermore that these are skills that can be identified and improved through training or cross-cultural interaction. Given Kim's (1991) research that suggests that intercultural communication competency is a result of adaptability, the CCAI offers a good match for evaluating adaptability and by extension, intercultural communication skills.

The CCAI takes a culture-general approach, addressing the universal aspects of culture shock and cultural adjustment. Kelley and Meyers (1995) predicted, “A person who is universally adaptable is one who can adjust to any culture's idiosyncrasies” (p. 1). The CCAI covers four dimensions, emotional resilience, flexibility and openness, perceptual acuity, and personal autonomy, skills that have previously been identified by many researchers as important to intercultural competence.

To summarize the meaning of these skills, the emotionally resilient person is resourceful and able to deal with stressful feelings in a constructive way and can cope with ambiguity and bounce back from emotional setbacks. Flexibility and openness “are characterized by accepting other ways of doing things, a lack of rigidity, and an ethnorelative perspective” (Brislin & Yoshida, 1994, p. 90). People with these skills enjoy interacting with people who think differently from

themselves and spending time in new and unfamiliar surroundings. Perceptual acuity “refers to the degree of sensitivity individuals have in terms of verbal and nonverbal messages, as well as to interpersonal relations in general” (Brislin & Yoshida, 1994, p. 90). People with perceptual acuity are sensitive to others and “are attentive to verbal and non-verbal behavior, to the context of communication, and to interpersonal relations” (Kelley & Meyers, 1995, p. 15). Personal autonomy refers to individuals’ abilities to maintain their personal beliefs and values when challenged in a new culture. People with personal autonomy have a strong sense of self and do not need to rely on cues from their surroundings to make decisions or form their identity.

Thus, the CCAI serves as a useful instrument stemming both from Kim’s (1991) research that states adaptability is essential to intercultural communication competence and from the numerous intercultural researchers who site emotional resilience, flexibility and openness, perceptual acuity, and personal autonomy as important skills for intercultural competence.

The second instrument, the ISI, was designed by Olson and Kroeger (2001) to measure the global competencies and intercultural sensitivity of individuals and their relationship on individuals’ effectiveness and experience abroad. The components they sought to measure regarding global competency included substantive knowledge (knowledge of cultures, languages, world issues, etc.), perceptual understanding (open-mindedness, flexibility, resistance to stereotyping), and intercultural communication (skills such as adaptability, empathy, and cultural mediation; Olson & Kroeger, 2001).

The questions Olson and Kroeger (2001) developed regarding substantive knowledge and perceptual understanding were similar to questions that were already being asked in the CCAI; however, the questions regarding intercultural communication had some unique aspects and were deemed to be important to this study. These questions draw on the skills needed to engage effectively with others—including empathy, cross-cultural awareness, intercultural relations, and cultural mediation, all topics previously mentioned throughout intercultural communication research. These questions—intercultural awareness or ICA—go to the heart of intercultural communication, asking individuals to rate themselves on such things as, “I can act as a cultural mediator and serve as a bridge between people of different cultures” and “I feel self-confident and comfortable socializing with people from other cultures” (Olson & Kroeger, 2001, p. 131).

Olson and Kroeger’s (2001) research and subsequent survey questions on intercultural sensitivity stemmed from Milton Bennett’s work called the Development Model of Intercultural Sensitivity (DMIS). DMIS delineates the successive stages of cultural sensitivity and understanding through which an individual progresses, each associated with particular attitudes and behaviors. The first

three are ethnocentric stages—denial, defense, and minimization—and are states in which the individual sees his or her own culture as central and measures all other cultures against his or her own, usually finding them to be lacking substance or significance. In the next three, ethnorelative stages of acceptance, adaptation, and integration, individuals acknowledge cultural differences and realize that one's own culture is one of many equally valid worldviews (Greenholtz, 2000).

DMIS can be used to identify at which stage an individual is in terms of cultural sensitivity, thereby predicting attitudes and behaviors common to people of that cognitive stage. Olson and Kroeger (2001) designed some 30 questions based on the statements describing each of the six DMIS stages, as well as 10 questions related to intercultural communication awareness in particular. Their Intercultural Sensitivity Index can be used to identify at what DMIS stage an individual is, thereby predicting attitudes and behaviors common to people of that cognitive stage.

RESEARCH QUESTIONS

The first research question of this study is whether students who study abroad will exhibit a greater change or development in intercultural communication skills than students who stay on campus. Intercultural communication skills will be viewed in terms of the seven aspects of the two indices: emotional resilience (ER), flexibility and openness (FO), perceptual acuity (PAC), and personal autonomy (PA) for the CCAI and ethnocentrism, ethnorelativism, and intercultural communication awareness for the ISI.

This study will also consider other factors that may have an impact on intercultural communication skills, such as gender, age, academic level, major, religion, hometown, and previous intercultural exposure through foreign language study, international travel, friendship with individuals of different cultures, and coursework in cultural or international studies. Thus, this research question will explore other possible predictors of a change in intercultural communication skills and determine which had the greatest impact on change in intercultural communication skills.

Because studying abroad is an activity for which students themselves select to participate, one might anticipate that they have demonstrated an interest in learning about other cultures and will already have a high degree of adaptability, sensitivity, and intercultural communication awareness in comparison to their peers who do not choose to study abroad. In fact, previous research seems to indicate that they will. If the study abroad students do in fact have higher scores on the pretest of intercultural communication skills, then they may have less room to show increase or development, which could affect the preliminary

research questions. Therefore, a final research question is posed, asking whether students who choose to study abroad have a higher level of intercultural communication skills even before their semester abroad than students who do not choose to study abroad.

THE DESIGN

The change or development in this study is assessed by asking students to complete a pretest at the beginning of the semester, before going abroad, and a posttest at the end of their semester abroad and then measuring the change, if any, between the two tests. To determine if the measured change was indeed due to the study abroad experience and not to the natural maturation and the exposure to new people and ideas that occur during a typical college semester, a control group of students who stayed on campus also needed to be measured at the beginning and end of the semester. As such, two groups of students were compiled, an abroad group and a campus group, and it was determined that both should be given the same survey at the beginning and the end of the fall 2002 semester.

Based on the validity and relevance of the two questionnaires, CCAI and ISI, both indices were used in the survey. Also included in the survey were a number of demographic questions that addressed students' background (age, gender, ethnicity, major, and class level) as well as the students' previous exposure to other cultures (size of hometown and other places where resided; previous travel; number of friends of different ethnic groups; attendance at different religious services; attendance at diversity events such as ethnic celebrations, culturally different museum exhibitions, foreign language films, etc.; and previous language/cultural studies). The pretest survey was a total of 15 multiple-choice questions (some requiring explanation), the 50 questions of CCAI on a 6-point Likert scale, and the 30 questions of ISI, also on a 6-point Likert scale. The posttest survey was exactly the same as the pretest survey except that the demographic questions were omitted and the additional questions inquired about exposure to different cultures during the previous semester only.

The 80 questions measure seven basic skills and mental states related to intercultural communication skills: the four aspects of the CCAI—emotional resilience (ER), flexibility and openness (FO), perceptual acuity (PAC), and personal autonomy (PA)—and the three aspects of the ISI—ethnocentrism, ethnorelativism, and intercultural communication awareness (ICA). For each dimension, 7 to 15 questions were asked, such as

ER: When I am working with people of a different cultural background, it is important for me to receive their approval.

FO: If I had to adapt to a slower pace of life, I would become impatient.

PAC: I pay attention to how people's cultural differences affect their perceptions of me.

PA: I feel free to maintain my personal values, even among those who do not share them.

Ethnocentrism: I do not really notice cultural differences.

Ethnorelativism: I am able to analyze and interpret events from one or more chosen cultural perspectives.

ICA: I can act as a cultural mediator and serve as a bridge between people of different cultures.

SAMPLE POPULATION AND DATA COLLECTION

The two groups of students were selected as follows: The abroad group was the fall 2002 study abroad students at Texas Christian University (TCU). This group included students studying in Australia, Belgium, France, Germany, Hungary, Italy, Japan, Mexico, the Netherlands, Russia, Spain, and the United Kingdom. A total of 44 TCU students studied abroad during the fall 2002 semester. The campus group was selected from two classes visited, a general studies business course and an English course, both of which contained a majority of sophomores and juniors (similar to the study abroad group) with a range of majors and backgrounds. The total campus group was 48 students.

The pretest surveys for the abroad students were distributed via mail with the predeparture packet from the International Education Office at TCU and whenever possible during the on-site orientation the first or second day in country (by the TCU on-site director). The pretest surveys for the campus students were distributed during two class visits at the beginning of the semester. The surveys included a consent form and the survey itself, both of which were discreetly numbered on the back. As such, students could remove their signed consent form and return the survey in anonymity, but the researcher could distribute the posttests in the same numbered fashion to the students and the results of each individual could be accurately measured. For both groups, the posttest was completed in a similar manner. Of the abroad group pretest of 36, 27 posttest surveys were returned. Of the 36 campus students who submitted pretest surveys, 25 posttest surveys were received. Although information for all students who returned the pretest was recorded, only the 52 students who also returned the posttest were used in the final data analysis.

For comparative purposes, the demographic information was reviewed for each of the two groups. The demographic data were reduced to the two to three predominant answers for each question. The demographic information showed that although the sample population was not truly random, they do represent a wide range of backgrounds, with two exceptions. The majority of the communication majors in the study were abroad (25 abroad compared to 9 on campus),

and the majority of the business majors were on campus (16 on campus compared to 2 abroad). The second exception is the gender of the participants; there were many more women in the study abroad group (23 abroad compared to 14 on campus) and many more men in the on campus group (11 on campus compared to 4 abroad).

The students' intercultural exposure was quantified by totaling the number of close friends of another culture, romantic relationships with someone of another culture, different languages studied, cultural classes taken, religious services other than their own attended, frequency of attendance at cultural and diversity events, and number of trips outside the United States. The range of international exposure is shown in Table 1.

Results show that prior to the fall semester, the two groups had a very similar range of intercultural experiences but that during the fall semester, the students abroad had many more intercultural experiences.

Next, data from the pre- and posttests of all 52 students were compiled by the aspect measured (ER, FO, PAC, PA, ethnocentrism, ethnorelativism, and ICA) and totaled by test (CCAI and ISI). The major aspect needing to be extracted from these data was the change (if any) in individuals from the pretest to the posttest. As such, this table included a column for each of the 10 aspects that recorded the difference between the two, found by subtracting the results of the pretest from the results of the posttest. Thus, for each individual, there was an ER difference, FO difference, PAC difference, PA difference, CCAI difference, ethnocentrism difference, ethnorelativism difference, ICA difference, ISI difference, and total intercultural communication skills difference. These data then allowed for the appropriate statistical tests to be administered.

Total adaptability (CCAI) was found by adding the totals of ER, FO, PAC, and PA. The highest possible score was 288. The highest student scores on the pretest were 272 among abroad students and 263 among campus students, and the lowest scores were 196 among abroad students and 173 among campus students. On the posttest, the highest scores were 278 (abroad) and 263 (campus), and the lowest scores were 177 (abroad) and 178 (campus). Total sensitivity (ISI) was found by adding ethnocentrism, ethnorelativism, and ICA totals. The highest score possible would have been 192. The highest student scores on the pretest were 143 among abroad students and 153 among campus students, and the lowest student scores were 98 among abroad students and 91 among campus students. On the posttest, the highest scores were 147 (abroad students) and 150 (campus students), and the lowest student scores were 107 (among abroad students) and 94 (among campus students). Table 2 shows the scores of the students on the pretests and posttests.

Table 1 Range of International Exposure of Participants

	Chi-Square	Students Abroad	Students on Campus
Exposure to other cultures prior to fall semester	7.35		
Median score		16.04	16.24
Standard deviation		9.07	8.70
Range		5 to 36	3 to 31
Exposure to other cultures during fall semester	35.74*		
Median score		16.63	4.12
Standard deviation		7.63	4.12
Range		2 to 35	0 to 22

* $p < .01$.

DATA ANALYSIS

The first testing of this study used MANOVA to investigate how each of the independent variables—location (abroad or on campus), gender, age, academic level, major, religion, hometown, and previous intercultural exposure through foreign language study, international travel, friendship with individuals of different cultures, and coursework in cultural or international studies—affected a change in intercultural communication skills over students who study on campus.

Among the four CCAI dimensions, two showed a significant difference. Change in ER by location was found to have an η^2 of 0.15 and a significance of .005, and change in PAC by location was found to have an η^2 of 0.13 and a significance of .08.

Among the three ISI dimensions, only two showed a significant difference (ethnorelativism and ICA). In terms of ethnorelativism, the study abroad students reported a much higher average increase than the students on campus (who in fact showed an average decrease in these skills). With an η^2 of .27, a significance of .01, this is one of the strongest aspects of the change in intercultural communication skills of study abroad students. Other predictors of ethnorelativism were major and gender. Communication majors were found to have greater increases in ethnorelativism than business majors, with an η^2 of .15 and a significance of .03, and women reported greater increases than men, with an η^2 of .11 and a significance of .02.

Findings for ICA revealed that the study abroad students averaged a greater increase than the campus students. With an η^2 of .38 and a significance of .01, this is the most significant finding of this study. In addition, major was found to be a predictor of change ICA, with an η^2 of .16 and a significance of .02 (with communication majors showing greater increases).

Table 2 Scores of All Students on All Tests

Scale	Mean	Standard Deviation	Range
CCAI pretest	227.87	21.46	173 to 272
Abroad	232.53	20.50	
Campus	222.83	21.74	
CCAI posttest	228.93	23.51	177 to 278
Abroad	236.68	21.52	
Campus	220.56	23.09	
Difference in CCAI	1.06	11.99	-35 to 26
Abroad	4.15	10.54	
Campus	-2.27	12.77	
ISI pretest	120.08	14.54	91 to 153
Abroad	122.24	13.33	
Campus	117.92	15.62	
ISI posttest	125.05	14.89	94 to 150
Abroad	133.43	10.06	
Campus	116.64	14.31	
Difference in ISI	4.88	10.42	-12 to 34
Abroad	11.28	9.81	
Campus	-1.26	6.69	

Note: CCAI = Cross-Cultural Adaptability Inventory; ISI = Intercultural Sensitivity Index.

Testing both instruments together, change in CCAI by location was reported to have an η^2 of 0.10 and a significance of .03, and change in ISI by location was reported to have an η^2 of 0.37 and a significance of .01, with the students who studied abroad reporting greater increases in both CCAI and ISI scores than those on campus. Major was also found to be a predictor of change in ISI, with an η^2 of .16 and a significance of .02. The communication majors reported larger increases in ISI scores than the business majors.

The second research question posed is whether students who choose to study abroad even before actually going abroad have a higher degree of intercultural communication skills than students who do not choose to study abroad and if after studying abroad have a higher level of intercultural communication skills than their peers who do not. This question was tested with multiple regression of CCAI and ISI scores separately and together (termed *total intercultural communication skills*) in the pretest and posttest as the dependent variables and location, level, major, age, gender, ethnicity, size of hometown, and exposure to other cultures as the independent variables. Exposure to other cultures was evaluated in terms of having had close friends or romantic relationships with people of other cultures, traveled or lived abroad, attended religious services other than their own, taken foreign language or cultural courses, or attended cultural exhibits such as foreign language films, museum shows, or ethnic celebrations.

The CCAI pretest scores were not found to have any predictors, but the ISI pretest scores found intercultural exposure prior to fall semester to be a predictor ($r = .50$, $r^2 = .25$, $df = 1$, $F = 16.14$, $p = .001$). In addition, the posttest scores for both CCAI and ISI reported intercultural exposure during the fall semester as the only predictor among all of the independent variables. (CCAI: $r = .41$, $r^2 = .17$, $df = 1$, $F = 10.02$, $p = .003$; ISI: $r = .63$, $r^2 = .39$, $df = 1$, $F = 31.19$, $p = .001$).

For total intercultural communication skills, although the students studying abroad did have higher scores than students not studying abroad (353.74 to 340.75 in the pretest), location was not statistically significant in predicting scores. In fact, findings revealed that the primary predictor in both the pretest and the posttest was intercultural exposure (pretest: $r = .40$, $r^2 = .16$, $df = 1$, $F = 9.04$, $p = .004$; posttest $r = .54$, $r^2 = .29$, $df = 1$, $F = 19.24$, $p = .001$).

These results indicate that intercultural exposure prior to the fall semester was predictive of ISI scores and total scores in the pretest, and intercultural exposure during the fall semester was predictive of CCAI scores, ISI scores, and total scores in the posttest.

RESULTS

The results showed that as predicted, the students who studied abroad generally showed a greater increase in intercultural communication skills than the students who did not study abroad, and students who chose to study abroad had a higher level of intercultural communication skills at the beginning and at the end of the semester than students who did not choose to study abroad. The results also showed that exposure to various cultures was actually a better predictor of intercultural communication skills than location in both pre- and posttest scores.

At the end of the semester, the students who studied abroad averaged a 4.15 increase on CCAI and an 11.28 increase on ISI, as opposed to those who stayed on campus, averaging a 2.27 decrease on CCAI and 1.26 decrease on ISI. Although MANOVA testing found significant changes for ER, PAC, ethnocentrism, ICA, and ISI scores based on students' location, the actual changes in score were not very large. Both groups of students started the semester with somewhat high scores (on CCAI, abroad students averaged 232.53 and campus students averaged 222.82 out of a possible 288; on ISI, abroad students averaged 122.24 and campus students averaged 117.92 out of a possible 192). Perhaps having somewhat high initial scores meant there was less room for improvement or change.

The major factor influencing students' change in intercultural communication scores was, as hypothesized, the location of their previous semester, not their academic level, major, gender, age, ethnicity, hometown, or exposure to various cultures, although some of these aspects did have an influence on certain

scales. Unfortunately, the sample was not truly distributed according to gender, major, ethnicity, academic level, and hometown, which may have diminished the possibility of accurately detecting their influence on change in scores.

Interestingly, at any moment in time, exposure to various cultures is the best predictor of intercultural communication skills. In both the pretest and the posttest, exposure to other cultures was the only statistically significant predictor of total intercultural communication skills. Regardless of whether students studied abroad or not, if they have made friends or had romantic relationships with individuals of a different culture; taken foreign language or cultural courses; attended ethnic celebrations, foreign language films, or new religious services; or in other ways learned about or interacted with people of another culture, their intercultural communication skills seemed to proportionally reflect that exposure. Although the students who studied abroad may have had greater opportunity for such experiences, the study abroad experience alone was not the major predictor of total intercultural communication skills.

IMPLICATIONS FOR STUDY ABROAD PROGRAMS

Much can be drawn from the results of this study even though it did not show as dramatic a difference between the abroad group and the campus group as anticipated. Certainly, the constraints of a self-study format, the small size of the tested groups, the broad scope of study abroad programs included in this study, and the only moderate reliability of the ISI test (.56 reliability on the pretest and .67 on the protest) imply that the results of this study should be taken in moderation. Nonetheless, the implications of this study are exciting and worth further investigation.

First, the study reveals that students who study abroad do in fact show a greater change in intercultural communication skills than students who stay on campus. This finding is quite different than previous studies regarding students abroad. Many evaluations of study abroad students have simply looked at their skills after their term abroad in relation to students who don't study abroad. Because students self-select to study abroad, one could easily assume that the students were already proficient in their skills before they left and would naturally score higher than their peers who stay on campus. This study however looks at change in skills, allowing us to see that study abroad does enhance students' intercultural communication skills even if they are already present. The use of the control group allows us to see that it is the study abroad experience and not the other independent factors that contributes the most to that change.

A perhaps even greater but unexpected outcome of this study is the relationship of exposure to other cultures as a function of intercultural communication skills. This confirms that the experience of being abroad in and of itself is not

enough—students must interact in the culture to receive the gain of increased intercultural communication skills. As we create study abroad programs or receive international students, we need to find ways to facilitate their interaction with the people of their host culture. Likewise, on our own campuses, we must not neglect opportunities to expose local students to other cultures even when they do not leave their own.

QUESTIONS FOR FUTURE STUDY

This study could not cover everything related to the topic of students increasing intercultural communication skills because of a study abroad experience. In fact, it is hoped that this study is merely the beginning of much research into this topic.

As mentioned earlier, demographic differences between the control group and the abroad group were not equally distributed. This study could be repeated with a more even distribution of demographic features.

This study was limited to students studying abroad for a semester, but future studies should look at other lengths of stay for similar kinds of comparisons. Or, future testing could be more selective in terms of the types of semester study abroad program included, such as testing students in one location or on one type of program or testing students who have completed predeparture training programs focusing on intercultural communication learning and development.

A longitudinal study looking at the long-term effects of study abroad on intercultural communication would also be another component to test. In addition, improving the instruments and manner of testing could bring greater precision to the results.

SUMMARY

This study was initiated in an effort to better understand and quantify the benefits of study abroad in the context of a multicultural world. Although anecdotal evidence abounds, there has been little quantifiable research on the skills and traits that students develop as a result of studying abroad and how these apply to life today. This study is a first step in identifying and measuring intercultural communication skills of students who study abroad and correlating the development and improvement of these skills to the international experience and intercultural exposure. In the increasingly global society we live in, it seems more clear than ever that we learn how to communicate with our neighbors in an adaptable and sensitive manner, and it is valuable to know that studying abroad is one opportunity that can help in that endeavor.

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