# Intercultural Development and Study Abroad: Impact of Student and Program Characteristics

by Eric R. Terzuolo

B.A. in History, June 1976, University of Minnesota
A.M. in History, June 1977, Stanford University
Ph.D. in History, June 1980, Stanford University

A Dissertation submitted to

The Faculty of
the Graduate School of Education and Human Development
of The George Washington University
in partial fulfillment of the requirements
for the degree of Doctor of Education

May 15, 2016

Dissertation directed by

Roger Whitaker
Professor of Higher Education and Sociology

The Graduate School of Education and Human Development of The George Washington University certifies that Eric R. Terzuolo has passed the Final Examination for the degree of Doctor of Education as of January 20, 2016. This is the final and approved form of the dissertation.

Intercultural Development and Study Abroad:
Impact of Student and Program Characteristics

Eric R. Terzuolo

Dissertation Research Committee:

Roger Whitaker, Professor of Higher Education and Sociology, Dissertation Director

Laura Engel, Assistant Professor of International Education and International Affairs, Committee Member

Brandi Weiss, Assistant Professor of Education, Committee Member

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# Dedication

The author wishes to dedicate this dissertation to his students, who have provided unfailing stimulus to his own intellectual and personal growth.

Acknowledgments

The author wishes to thank Roger Whitaker, director of this dissertation, esteemed and trusted adviser throughout the author's studies at The George Washington University. Prof. Whitaker has been a model of commitment to his students and to higher education in the US and abroad. Thanks also are due to the other members of the Dissertation Research Committee, Laura Engel and Brandi Weiss, for their advice and support, and to Donna Scarboro and Bernhard Streitwieser for their insights at the dissertation defense. The Graduate School of Education and Human Development supported the author's studies with financial aid. Rob Hallworth and his colleagues at the university's Office for Study Abroad were unfailingly supportive.

Mitchell Hammer, President of IDI, LLC, supported this research with his advice, and notably by providing a dissertation research discount on the price of the Intercultural Development Inventory.

The author's wife Deborah has been unfailingly supportive and understanding of his late-blooming passion for the study of higher education administration. For this, and so much else, he is profoundly grateful.

Abstract of Dissertation

Intercultural Development and Study Abroad:
Impact of Student and Program Characteristics

The number of U.S. undergraduates who study abroad is growing, as are expectations that the experience will result in increased intercultural competence. Conclusions in the literature regarding actual outcomes of study abroad, however, remain limited, and often are contradictory. This research examines whether a semester of study abroad is associated with significant change in students' ways of understanding and approaching cultural difference ("intercultural development"), as compared to remaining on one's home campus for the same period. It also assesses whether certain demographic characteristics and background experiences of students, as well as characteristics of study abroad programs, may have significant impacts on outcomes for international education participants.

Changes over a semester in Developmental Orientation and Cultural Disengagement scores on the Intercultural Development Inventory (IDI) are the primary dependent variables. An experimental (i.e. study abroad) group of 108 undergraduates from Large Urban Private University (LUPU), which has a high rate of study abroad participation, completed the IDI before and after studying abroad in either the Fall 2014 or Spring 2015 semester. A control group of 65 LUPU undergraduates who remained on the home campus completed the IDI at the beginning and end of the Fall 2014 semester. The impact of study abroad as such, and of students' personal characteristics, was analyzed via group comparisons using analysis of variance (ANOVA) techniques. Correlational analysis and ANOVA were used to explore the effects of study abroad

program characteristics on experimental group members.

Experimental group members experienced a statistically significantly greater positive change on both IDI scores, pre- to post-test, as compared to control group members, with small-to-medium effect size. In other words, students became on average slightly more interculturally-minded, and also less conflicted about their cultures of origin, after a semester of study abroad. But shifts from one way to another of understanding and addressing cultural difference (as defined in the IDI) were uncommon. Study abroad participants who were female, identified as members of more than one national culture, or had a grandparent born and raised outside the United States were significantly more likely than others to increase their intercultural-mindedness. Surprisingly, in light of the relevant literature, none of the study abroad program characteristics tested was significantly associated with pre- to post-test IDI score change for the experimental group members.

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# CHAPTER 1: INTRODUCTION

Higher education leaders responded to the tragic events of September 11, 2001 and their aftermath with an enhanced focus on internationalization. American Council on Education president David Ward wrote in 2002:

> As the world becomes more connected, it is vital that colleges and universities prepare graduates who are proficient in foreign languages, aware of different peoples and cultures, and literate in issues of common global concern. Simply stated, America's future hinges on its ability to educate a globally competent citizenry (Engberg & Green, 2002, p. 1).

Study abroad is often considered the leading dimension of higher education internationalization, expected to help meet the challenge Ward described.

Whether through exposure to or immersion in the "new and different" or through a combination of immersion and cultural mentoring (Vande Berg, Paige, & Lou, 2012, pp. 15-19), study abroad is thought to foster intercultural competence and/or build "global citizens" (Bishop, 2013; Lewin, 2009b). Yet our understanding of whether and how study abroad actually promotes learning and personal development remains very limited.

The research presented here is intended to advance that understanding. It addresses what Green (2013, p. 5) terms the "so what?" question: What is the impact of internationalization activities on "the quality of learning, research, and outreach," and especially on students? Study abroad numbers are smashing records every year,

according to the Institute of International Education (IIE)'s *Open Doors* reports,[1] but the experience is also highly complex, expensive for students and their families (Cressey & Stubbs, 2010), and sometimes even a risky undertaking (Gumbel, 2011, April 6). At a time of growing economic pressure on students and families, and of increasing demands for assessment of higher education outcomes, study abroad can hardly remain insulated from questions about its impacts (Green, 2013; Vande Berg, 2007). Does it in fact promote learning and development that are quantitatively greater than and/or qualitatively different from what would occur if a given student were to remain at their home institution for the equivalent period?

Empirical studies have suggested the need to take claims regarding the benefits of study abroad, if not skeptically, at least somewhat cautiously (Pedersen, 2010; Vande Berg, Connor-Linton, & Paige, 2009). The research reported here, which focuses on study abroad's impact on students' ways of understanding and addressing cultural difference ("intercultural development") confirms earlier findings regarding the association between study abroad and a more intercultural mindset, i. e. more open and potentially adaptable to other cultures, more ethnorelative (Hammer, 2012). It also challenges, however, some previous findings regarding the role of the background that students bring with them into study abroad, and the impact of specific features of the programs in which they participate.

This is a longitudinal, quantitative study, using pre- to post-test change over a

[1] See http:// www.iie.org/Research-and-Publications/Open-Doors.
[2] See http://www.eaie.org/blog/a-new-look-for-student-mobility-erasmus/.

semester in scores on the Intercultural Development Inventory (IDI) as the dependent variable. Though not without its critics, the IDI is extensively validated and widely used in academe and in both public and private sectors. The research design includes comparisons between an experimental group of students studying abroad and a control group of counterparts who remained on their home campus (Large Urban Private University – LUPU) for a semester, as well as analysis strictly related to the study abroad group. The primary statistical methods employed here are analysis of variance (ANOVA), correlational analysis, *t*-tests, and $\chi^2$ analysis.

This study may provide higher education administrators, faculty, and study abroad professionals, as well as students and their families, with useful insights regarding factors that may be associated with change in study abroad participants' ways of understanding and addressing cultural difference. In this way, it could facilitate cost-benefits analysis for decisions on study abroad promotion and implementation. It also suggests the need for further research assessing study abroad outcomes relative to expectations.

## Statement of the Problem

Understanding of whether, and under what conditions, study abroad actually influences participants is still quite limited. As the literature review in Chapter 2 illustrates, study abroad research historically has suffered from a lack of methodological rigor and a shortage of field-specific theoretical grounding. The post-Cold War period has seen improvement, thanks to improved research instruments, the burgeoning literature on teaching and learning, and more rigorous definition of research variables. Most of the study abroad data that educational institutions collect still comes, however, from self-reports in ad hoc questionnaires focused on "customer satisfaction," very

difficult to use reliably in assessing learning or development. Even quite significant studies frequently employ only basic analytical methodologies.

Impressive growth in study abroad enrollments is sometimes treated as a sign that things are moving in the right direction. Student mobility has been a truly elite phenomenon for almost its entire history, going back to the remarkably mobile intellectuals and their disciples in the Middle Ages and Renaissance (Kerr, 1990; Perkin, 1987). In the 18th, 19th, and early 20th centuries, young North Americans from the upper class frequently engaged in a "Grand Tour" of Europe, to experience the masterpieces of classical antiquity and their revival in the works of Renaissance artists and thinkers (Prown, 1997).

Even when study abroad emerged in something resembling its current form in the 1920s and 30s, via the junior year abroad programs of the University of Delaware, soon followed by Marymount, Smith, Rosary, and Montclair State Teachers colleges, the numbers were still small, with an estimated total of fewer than 2,000 students between 1923 and 1939 in the nine programs then available (Hoffa, 2007, 71-82, 158). World War II put a stop to study abroad in Europe (almost the sole destination for students until then), but the postwar era saw a significant increase in the number of study abroad students, reflecting in part the idea that foreign area and language expertise were of strategic importance to the United States in the Cold War (Keller & Frain, 2010).

Statistics were not very reliable until at least the late 1970s, when the Institute of International Education (IIE) began collecting data on U.S. study abroad participants directly from institutions in the United States, rather than relying on reports from host institutions abroad, and generally did not distinguish between graduate students and

undergraduates (though for a long time the former were a strong majority). Still, the IIE estimates broadly indicate the changing scale of the phenomenon. In the 1954-55 academic year, for example, some 9,457 Americans studied abroad. The 1964 report, on the other hand, estimated 17,000 U.S. students abroad.. The increase was less dramatic in the second half of the 1960s, and numbers actually declined a bit in the 1970s. The 1980s, however, saw a return to rapid increases, with study abroad more than doubling, reaching over 70,000 students in 1989-1990. Figures more than doubled again in the 1990s, reaching over 154,000 in 2000-2001, and the upward trend has continued, thanks in part to the proliferation of short-term study abroad programs (Hoffa, 2007, pp. 232-235; Stallman, Woodruff, Kasravi, & Comp, 2010, p. 128).

The *Open Doors 2015* report (Institute of International Education, 2015, November 16) notes a 5% increase in the number of U.S. students studying abroad between 2012-2013 and 2013-2014, reaching an all-time high of over 304,000 American students abroad. On the other hand, IIE estimates that only about 10% of U.S. undergraduates study abroad at some point, though the figure for bachelor's degree seekers is almost 15%.

Study abroad numbers should be considered, however, in a broader context, as just one important dimension of the internationalization of higher education institutions. "Internationalization" is a relatively recent term, dating back to the 1990s, when it in part supplanted "international education." In de Wit's view (2013, p. 6), the latter was an "umbrella term, to embrace a whole series of fragmented and rather unrelated international activities in higher education: study abroad, foreign student advising, student and staff exchange, development education, and area studies."

"Internationalization" implies a more conceptual approach, "a strategy for enhancing the quality of education and of research," but the concrete difference is often modest. De Wit (2013, p. 7) argues, in fact, for rethinking internationalization, which has become a quantitatively measured "goal in itself, instead of . . . a means to an end." Study abroad is a dimension of internationalization that certainly can lend itself to such quantification.

In the US, a related concept with some currency is "comprehensive internationalization," which a publication from NAFSA: Association of International Educators (Hudzik, 2011, p. 6) defines as

> a commitment, confirmed through action, to infuse international and comparative perspectives throughout the teaching, research, and service missions of higher education. It shapes institutional ethos and values and touches the entire higher education enterprise. It is essential that it be embraced by institutional leadership, governance, faculty, students, and all academic service and support units. It is an institutional imperative, not just a desirable possibility. Comprehensive internationalization not only impacts all of campus life but the institution's external frames of reference, partnerships, and relations. The global reconfiguration of economies, systems of trade, research, and communication, and the impact of global forces on local life, dramatically expand the need for comprehensive internationalization and the motivations and purposes driving it.

De Wit (2013), however, argues that adding "comprehensive" is actually superfluous. If internationalization is not comprehensive, it is still just "international education." (Brandenburg & de Wit, 2011).

Knight, (2011, Winter) contends that internationalization now "is definitely past

the ‘new flavor of the month’ stage [and] is firmly imbedded in institutional mission statements, policies, and strategies as well as national policy frameworks”. In the US this is particularly true of doctoral institutions, 56% of which had campus-wide internationalization plans in 2011, according to a survey sponsored by the American Council on Education (Center for Internationalization and Global Engagement, 2012). In a broader sense, a largely homogeneous view of internationalization, including study abroad as one of its multiple facets, has become a core aspect of institution-wide planning for the future at most major colleges and universities (Brustein, 2009).

At the George Washington University, to take just one example, a view of internationalization as engaging and pervading the entire institution certainly informs *Vision 2021*, the university’s strategic plan adopted in May 2013, which includes “globalization” of the university’s educational and research program as one of its four central themes. The university

> will continue to prepare students for [an] increasingly interconnected world, teaching them to work effectively with people from diverse countries and cultures. Our students need to understand and appreciate diverse belief systems. They need to learn even more than they currently do about governmental systems other than their own. They need to gain greater perspective on how technology, knowledge, history, culture, and language shape national identities and aspirations. And they need opportunities to expand their own creative thinking through significant exposure to other cultures’ forms of artistic expression that reveal different values, beliefs, and ideas.

Study abroad is a component of this overall effort, and the university commits itself to

"develop study-abroad programs in which students spend extended periods . . . immersed in the norms, culture and language of another country (as opposed to simply studying in another country)" (George Washington University, Office of the Provost, 2013, p. 17).

Indeed, study abroad is essential to the internationalization of higher education. Student mobility has been and remains the most prominent component of the broader internationalization process. Larsen and Dutschke (2010, p. 325) argue, for example, that study abroad "is the most frequently discussed and most often measured of the components that the term [internationalization] encompasses." Reviewing the U.S. higher education institutions that, beginning in 2003, received the Senator Paul Simon Award for Internationalization from NAFSA: Association of International Educators, they also note that, at all the recipient institutions, "study abroad [was] the main component of internationalization, and other on-campus efforts [were] often tied to study abroad" (p. 363). In Europe[2] and Japan[3] as well, student mobility has been and remains the core element of higher education internationalization.

Not everyone may agree with the George Washington University's choice of the term "globalization" as opposed to "internationalization." The implication is that the university is seeking a global reach, but Brandeburg and de Wit (2011) point how the two concepts often are portrayed as antagonistic. "Globalization is loaded with negative connotations," signifying a world driven purely by economic motives, while

[2] See http://www.eaie.org/blog/a-new-look-for-student-mobility-erasmus/.

[3] See http://www.theguardian.com/higher-education-network/blog/2012/apr/23/japan-international-student-mobility.

internationalization is portrayed as "the white knight of higher education, the moral ground that needs to be defended, and the epitome of justice and equity." Even if we "move away from dogmatic and idealist concepts of internationalization and globalization" (Brandenburg & de Wit, 2011), there is still a strong case to be made that globalization is in fact a process, a context, to which universities respond via internationalization. In other words, globalization and internationalization are not two different words for the same thing (Scott, 1990).

Accepting the view (Brandenburg & de Wit, 2011; de Wit. 2013) that internationalization and its components, such as international student mobility, are means to the end of improving educational quality in a global knowledge society, it is important to assess whether said improvement is in fact occurring. In *Measuring and Assessing Internationalization*, in fact, Green underlines the importance of students' global learning, broadly defined as "learning with international, global, and/or intercultural focus." Success in global learning is not just a matter of

> offering more courses with global content, having more students going abroad, and more international students . . . Only being clear and consistent about what students have learned through these experiences and courses will demonstrate the extent to which a program or course is able to match outcomes with aspirations (2012, p. 9).

Efforts to assess the outcomes of study abroad in fact have been increasing (Vande Berg, 2007).

Assessment, of course, requires clearly stated sets of study abroad objectives. The benefits of foreign experience seemed self-evident when those studying abroad were

young people of means, sent abroad to see great works of art and to "rub shoulders" with a different society, perhaps picking up a bit of some foreign language along the way. The belief that study abroad produces cultural sensitivity and knowledge of foreign societies by osmosis is far from gone (Vande Berg, 2007), but some practitioners have seized on increasing study abroad enrollments as inspiration for efforts to set detailed objectives.

A mainstream study abroad agenda, with a strong emphasis on intercultural learning and development, seems to have emerged, though some argue that the mainstream approach is fundamentally conservative, and that study abroad should have a more critical and political focus, focused on motivating students to work for international social and economic justice (S. H. Gillespie, 2002; Reilly & Senders, 2009). This view may find some support in the rubrics on "Global Learning" and "Intercultural Knowledge and Competence" that the Association of American Colleges and Universities has developed as part of its widely used VALUE (Valid Assessment of Learning in Undergraduate Education) program (Association of American Colleges and Universities, n.d. a and n.d. b).

In the US, development of standards and expectations for study abroad actually goes back at least to the 1920s. Questions regarding how to promote beneficial cross-cultural encounters, and whether study abroad should serve the specific needs of advanced language and culture students, or serve more general liberal education objectives, surfaced decades ago (Comp & Merritt, 2010), and are still current. By the 1970s, organizations such as the National Association of Foreign Student Advisers (now NAFSA: Association of International Educators) and the Association of International Education Administrators (AIEA) were developing guidelines and assessment practices

for study abroad programs, and such efforts grew further after the end of the Cold War.

The Forum on Education Abroad, founded in 2001 by a group of U.S. colleges and universities with a particular commitment to internationalizing education, actually managed to obtain recognition as *the* standard setting organization for study abroad from the Anti-Trust Division of the U.S. Department of Justice and the Federal Trade Commission. Its *Standards of Good Practice for Education Abroad,* which first appeared in 2004, have included intercultural understanding, intercultural communication skills, and tolerance for ambiguity among the attributes that study abroad programs should foster (Forum on Education Abroad, 2011).

Another organization that has helped shape current consensus regarding study abroad objectives is IES Abroad, a major provider of study abroad opportunities. The *IES Abroad MAP (Model Assessment Practice) for Study Abroad*, first developed in 1999 and currently in its fifth edition, notes that

> in a program of study abroad, the development of intercultural understanding is significant, and desired outcomes in this category direct both the curriculum and co-curriculum. Emphasis is placed on students' acquiring adaptive skills to facilitate their immersion in their host country and support them in further study or work abroad. (IES Abroad, 2011b, p. 8)

Although neither the Forum nor IES uses it, another popular shorthand term for the objectives of international education is "building global citizens," a concept rooted in what Schattle (2009, p. 3) calls the "cosmopolitan tradition." Even advocates for global citizenship, however, admit their "failure to adequately define" the term (Lewin, 2009a, p. xviii). Some of the chapters in the Association of American Colleges and Universities

*Handbook of Practice and Research in Study Abroad: Higher Education and the Quest for Global Citizenship* (Lewin, 2009b) employ "global competence" as an apparent synonym for "global citizenship." This suggests some similarity between global citizenship and the intercultural study abroad goals discussed above. It is fair to say, in any case, that there exists a "consensus view" of study abroad objectives, which includes the promotion of intercultural development..

Despite this consensus, however, there is continued reason to ask how well institutions are meeting objectives, and whether claims regarding the benefits of study abroad, as actually practiced, might be somewhat extravagant (Bishop, 2013). The literature review in Chapter 2 highlights widely divergent assessments of the impact of study abroad itself, and of variables distinguishing study abroad programs and participants. The so-called "assessment movement" has generated enormous controversy and staunch resistance in many quarters of the U.S. academic community, e.g. the often bitter criticism of Arum and Roksa's *Academically Adrift* of 2011 (Arum, 2013). But calls for improved assessment are not going away anytime soon, and study abroad is not insulated from this phenomenon (Vande Berg, 2007).

In a 2011 survey, with almost 240 member institutions responding, the Forum on Education Abroad found that only 20% of those institutions were analyzing data to determine the "relationship between learning outcomes and study abroad program type" (Forum on Education Abroad, 2012, March, p. 12). The overwhelming majority of responding institutions (82%) reported that they conducted education abroad program evaluation, and almost half (45%) reported conducting assessments of students' intercultural development. However, reliance on internally developed instruments (64%)

instead of standard, validated tools such as the Intercultural Development Inventory (7%), and the widespread use of no formal assessment tools (28%), provides grounds for skepticism about the actual state of study abroad assessment, even at institutions that signal a particular commitment to education abroad. The Forum's 2013 survey found that 57% of U.S. institutions surveyed reported having identified learning outcomes from study abroad, though only 39% reported having relevant assessment plans (Forum on Education Abroad, 2014, April).

As the literature review highlights in more detail, individual institutions' ad hoc "customer satisfaction" surveys, which students typically fill out at the end of their programs, focus on issues other than students' learning and development, or at best depend on self-assessments (notoriously unreliable), and are not comparable across institution lines to develop a broader view (McLeod & Wainwright, 2009). Study abroad administrators and faculty seemingly draw some satisfaction, or relief, when students report that they would "do it again" or would recommend study abroad to a friend. And such data sometime form the basis of published articles, such as Van Hoof and Verbeeten (2005), which reports that almost two-thirds of study abroad participants would be willing to study abroad again at the same institution, and almost all would study abroad again somewhere. But in fact the customer satisfaction surveys offer little information about the type, quality, and extent of learning and development that take place in study abroad, beyond perhaps student perceptions of how difficult their study abroad programs were (Van Hoof & Verbeeten, 2005). The end-of-program survey can seem more like a formality than an effort to develop guidelines for better practice.

Reliance on ad hoc, unvalidated instruments with broad questions about student

satisfaction may reflect in part the widespread *assumption* that study abroad inevitably will have benefits. A review of the literature suggests that, despite some skeptical voices, study abroad researchers generally start with positive expectations. It is sometimes economists, rather than higher education researchers, who ask the question: Is study abroad really worth it? Schmidt and Pardo (2011, Abstract), for example, find that the "human capital formed by study abroad is not more, nor less, than that formed by study on the home campus for the same period of time." Messer and Wolter (2007), also on the basis of human capital theory, looked at the starting salaries of graduates of Swiss universities who had studied abroad, as well as their likelihood of going on to postgraduate studies, and could identify no causal link between "better" performance on those indices and the fact of having studied abroad. Little surprise that economics is termed "the dismal science." Non-economists, on the other hand, are inclined to look toward less material impacts of study abroad, sometimes finding confirmation of its benefits, other times not.

The literature review in Chapter 2 also demonstrates how criticism regarding poor quality has dogged research on study abroad, underlining both theoretical poverty and lack of scientific rigor. Research has improved, on the whole, over the last two decades, in part due to the development of improved tools for gauging participant changes in intercultural development or global mindedness, e.g. the Intercultural Development Inventory (IDI) (Pedersen, 2010; Vande Berg, Connor-Linton, & Paige, 2009), and the Global Perspective Inventory (GPI), which also has been usefully employed in study

abroad research (Braskamp, Braskamp, & Merrill, 2009).[4] Some study abroad professionals have immersed themselves in the expanding research on learning and cognition, increasingly embracing the "Student Learning paradigm" (Vande Berg, 2007, p. 393), which holds that students learn best by constructing knowledge, not just passively absorbing it, as is expected in most foreign universities, on which U.S. study abroad programs often rely. Paige and Vande Berg (2012) review a considerable body of research supporting the need to intervene actively, in continuing fashion, to ensure student learning in study abroad, and scholar-practitioners form something of a lobby for study abroad assessment as well.

Better research instruments certainly are not a complete solution. Studies continue to illustrate the complexity of gauging development in study abroad. As the literature review illustrates, the best current research is still inconclusive in demonstrating that study abroad reliably produces benefits across student or program types. Intercultural development in study abroad needs to be examined not only from an overall perspective (i.e. is study abroad associated with change in ways of understanding and addressing cultural difference?), but also focusing on specific factors that shape and influence study abroad outcomes.

Two broad types of factors, termed here "personal characteristics" and "program characteristics," have the potential to condition the intercultural development of study abroad participants, as measured by the Intercultural Development Inventory and other instruments. But the literature review in Chapter 2 demonstrates that the jury is still out

[4] On these instruments see https://www.idiinventory.com and https://gpi.central.edu/index.cfm.

on how to identify and define the most relevant characteristics, and how to assess connections between those characteristics and study abroad outcomes. How to define and operationalize variables ranging from incoming students' prior international experiences to their housing arrangements while on study abroad is in itself no simple matter.

## Purpose and Research Questions

Study abroad can have varied outcomes for participants, such as enhanced knowledge of host countries, improved skill in host country languages, or a greater appreciation for global interconnectedness. The author's decision to focus on how study abroad may impact on students' ways of dealing with cultural difference largely stems from his personal history. The child of immigrants to the United States, he navigated between very different cultural milieus at home and outside the home. He also has had to address intercultural challenges in his professional life, including over twenty years as a U.S. diplomat, serving in a wide variety of countries, and teaching at public universities in Italy and the Netherlands.

In light of our still limited knowledge regarding the impact of study abroad on students' understanding of cultural difference and ways of addressing it, this study addresses three broad issues: the impact of study abroad as such (as opposed to remaining on one's home campus); the potentially conditioning role of what students bring with them into study abroad; and the influence on outcomes, if any, of the specific characteristics of study abroad programs. The conclusions on these matters in the literature are contradictory.

The research reported here employs a state of the art tool for identifying

individuals' ways of understanding and addressing cultural difference, the Intercultural Development Inventory (IDI), which has gone through repeated refinement and validation, and is widely used in the public and private sectors. (See detailed discussion in Chapter 3.) Independent and dependent variables are carefully defined and theoretically grounded. The statistical analysis is sufficiently sophisticated to engage with the strongest current literature on the impact of study abroad.

Specifically, the research addresses three main research questions:

1. Is a semester of study abroad associated with more significant pre- to post-test change in scores on the Intercultural Development Inventory (IDI) than a semester of study at one's home institution?
2. Are a series of personal characteristics and background experiences of participating students[5] significantly associated with different IDI outcomes for students studying abroad and at their home institution?
3. For those studying abroad, are a series of study abroad program characteristics[6] significantly associated with pre- to post-test differences in intercultural development scores?

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[5] The personal and demographic characteristics examined here are: gender; academic major; membership in an ethnic minority; ability to interact effectively in a language other than English; one year of college-level foreign language study; identification with more than one national culture; having a grandparent born and raised outside the US; time spent abroad before participating in the research.

[6] The program characteristics examined here are: cultural distance of the host country from the U.S.; intentional intercultural pedagogy; use of a non-English language in the

The relative research hypotheses were that

1. Students who studied abroad would present significant pre- to post-test increases in intercultural mindset and reduced cultural disengagement, as measured by the IDI, relative to students who remained on the home campus.
2. One or more demographic characteristics and prior life experiences of students would be significantly associated with differences between the study abroad and control groups in pre- to post-test change in IDI scores.
3. One or more study abroad program characteristics would be significantly associated with pre- to post-test change in intercultural development scores for those participants who in fact studied abroad.

As reported in chapters 4 and 5, the first hypothesis was accepted, since the mean difference, pre-to post-test, in both IDI Developmental Orientation and Cultural Disengagement scores, was statistically significantly more positive for those who studied abroad than for those who remained on their home campus, with small-to-medium and medium effect sizes respectively. Similarly, the second hypothesis was accepted, because three of the personal characteristics examined in the study – feminine gender, self-identification as a member of more than one national culture, and having at least one grandparent born and raised outside the United States – had statistically significant associations with more positive score change for those studying abroad than for control group members. On the other hand, and rather unexpectedly, the third hypothesis was *rejected*, since *no* statistically significant association was found between IDI score

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classroom; immersion in the host country educational system; housing with host country nationals.

change, pre-to post-study abroad, and any of the five study abroad program characteristics under consideration.

## Significance

This study is potentially significant on at least two levels: 1) as a contribution to methodologically rigorous study abroad research assessing the impact of study abroad itself, of what students bring with them into study abroad, and of study abroad program characteristics on a key expected outcome of study abroad; 2) as a source of insights that should be of interest to study abroad professionals, university administrators and faculty, plus students and their families, as they consider the potential benefits of study abroad, and how to reliably and equitably maximize said benefits.

As the literature review illustrates, empirical research on study abroad outcomes that meets the customary standards of social science is a relatively recent phenomenon. The two main journals specifically devoted to research on study abroad only emerged in the 1990s: *Frontiers: The Interdisciplinary Journal of Study Abroad*, associated with the Forum on Education Abroad, first appeared in 1995; the *Journal of Studies in International* Education, the main publication of the Association for Studies in International Education, based in the Netherlands, began publication in 1997. A third publication of particular relevance to those concerned with intercultural development is the *International Journal of Intercultural Relations,* which first appeared in 1977. Though not specifically devoted to study abroad or international education research, the journal does devote considerable attention to these areas. It also focuses on development and validation of tools for assessing intercultural competence, notably the Intercultural Development Inventory (IDI) used in this research. All three journals are in a sense the

flagships of important research programs, which have helped define the guiding spirit and objectives of this research as well.

Relative to the most up-to-date and most closely comparable research, this study confirms some previous findings and challenges others. Specifically, it confirms previous indications of a statistically significant association between a semester of study abroad and a short-term increase in intercultural mindset for participating students (as compared to similar students spending a semester on their home campus). The identified effect size is small-to-medium, actually larger than that found in the most important large study using the Intercultural Development Inventory (Vande Berg, Connor-Linton, & Paige, 2009). However, shifts from one way to another of understanding and addressing cultural difference (as defined in the IDI) were uncommon.

With respect to the demographic characteristics and personal experiences that students bring with them into study abroad, this research identifies a statistically significant effect, with a medium-to-large effect size, for female gender in association with increased IDI scores (indicating increasingly intercultural mindsets) for those studying abroad, as compared to the control group. In this sense, the study comes down strongly on one side of a still open and vigorous scholarly debate, discussed in Chapter 2.

It also breaks new ground by finding statistically significant positive effects on study abroad students for two variables not previously considered in the literature. Students who identified as members of more than one national culture were more likely than others to show an increase in intercultural mindset in connection with study abroad (medium-to-large effect size). The same was true for students with one or more grandparents born and raised outside the United States (large effect size). These results

suggest that the pre-existing cultural identity and background of students may do a lot to shape their study abroad outcomes, something worth further examination.

With respect to the impact on intercultural development of the specific characteristics of the study abroad programs in which students participate, the study confirms previous indications that immersion in a host country higher education system is not significant, in and of itself. On the other hand, this analysis indicates no significant association between intentional intercultural pedagogy in study abroad programs and changes in students' intercultural development scores. This challenges reports in much of the recent literature that it is precisely intentional efforts to promote the intercultural development of study abroad participants that produce IDI score increases. (See Chapter 2.) This research also does not provide support for findings in the literature regarding the positive impact on students of certain housing situations while studying abroad, of studying in a location culturally distant from the United States, or of taking courses employing a language other than English.

To sum up, the impact of a semester of study abroad on students' ways of understanding and addressing cultural difference is modest, and certain personal characteristics and experiences students bring with them into study abroad may be more influential than specific features of the study abroad programs in which they participate. Should further research confirm this overall conclusion, higher education leaders, study abroad administrators, plus students and their families will have reason to take notice.

The benefits of study abroad, including with respect to students' intercultural development, frequently are taken as givens, as colleges and universities employ study abroad to help meet their strategic internationalization objectives. It is worth asking,

however, whether there are demonstrable benefits to study abroad that outweigh the costs, especially to students and their families. And whether benefits of study abroad are, or at least can be, distributed equitably. This research raises precisely such questions. Global competition is growing, not just economic, but also cultural, social and political (Zakaria, 2012). If study abroad can indeed prepare young people for intercultural challenges, and help them operate more effectively in a globalized world, it is a tool worth using in a careful, pondered, and highly intentional fashion. But actually making such strategic use of study abroad should be a data-driven process.

## Theoretical Foundations/Conceptual Framework

Study abroad research generally has put a modest emphasis on theory. This is hardly surprising in research primarily directed at practitioners and administrators working in the field. Some useful and insightful study abroad research largely circumvents grand or middle-range theory, and offers empirical generalizations and interpretations that stay close to the underlying data. The studies by Norris and Dwyer (2005) and Norris and Gillespie (2009), for example, are not explicitly theoretical, yet draw practically useful conclusions from data regarding the impact on students of different types of study abroad programs. Engle and Engle's 2003 typology of study abroad programs, to take another example, is based on their long experience as practitioners, and also has no explicit theoretical basis. But its propositions regarding the expected impacts of different types of study abroad programs are useful for empirical investigation.

There is currently no specific theory of intercultural learning or development in study abroad. In 1990, Carlson, Burn, Useem, and Yachimowicz admitted that it was

difficult to document a connection between increased levels of international understanding and study abroad, in part because "there [was] little theory to guide . . . conceptualization of what international understanding [was]" (p. 18). Much later assessments largely concur that comparatively little "focus has been given to the development of a culture learning theory specifically related to the study abroad field" (Hoff, 2005, p. iv). In a 2013 article on the effects of study abroad on intercultural competence, Salisbury, An, and Pascarella also recall continuing criticism of the "lack of a grounded theoretical framework" for study abroad research (p. 3).

The research reported here reflects no ambitions to propose grand or middle-range theory, and is largely focused on what, in a field such as history, might instead be termed "interpretation" of data. In a sense, however, this could be considered an exercise in theory testing, to the extent that it engages with a series of interpretative propositions that earlier scholars have developed regarding the outcomes of study abroad and a wide range of potentially conditioning factors. (See Chapter 2.)

The researcher's guiding philosophy regarding the link between theory and research is akin to what American philosopher of aesthetics Morris Weitz expressed in his 1966 essay "The Nature of Art." Referring to theories of art, Weitz argued: "Each of the theories represents a set of explorable criteria which serve to remind us of what we may have neglected or to make us see what we may not have seen" (as cited in Eisner, 1994/2002, p. 219). Eisner argues that one can say the same for theories of education, behavior, and culture.

The choice of a quantitative research instrument, the Intercultural Development Inventory (IDI), and of statistical methods of data analysis is not proof of a "positivist"

approach on the researcher's part. As Bentz and Shapiro (1998) point out, the use of "positivism" as a synonym for the use of quantitative methods in the social sciences is inappropriate. Positivism is not a research method, but rather a "philosophical position about knowledge and research" (p. 30). The researcher's philosophical position is better termed "postpositivist," as described by Phillips (1990, pp. 32), who recalls Dewey's preference for the term "warranted assertibility" over "truth," and argues that the social sciences "are, par excellence, fields of 'the believable,' of building 'the good case,' where even the best of cases can be challenged or reanalyzed or reinterpreted."

Two theoretical constructs do figure prominently in this research. Mezirow's transformative learning theory, which characterizes learning as change in one's frame of reference, i.e. the set of assumptions people use to understand their experience, already has provided inspiration to several students of intercultural education. In defining the objectives of study abroad, for example, Brewer and Cunningham (2009a) emphasize transformative learning, notably Mezirow's concept of *disorienting dilemmas,* experiences that lead to questioning, assessment, and even radical transformation of the taken-for-granted assumptions in individuals' frames of reference. Mezirow's work also has provided the underpinnings for dissertations by Whalley (1995), Hoff (2005), and Ogden (2010).

Based on Mezirow, one would expect some study abroad program characteristics to promote transformative learning by opening up challenges to the frames of reference students bring with them into the experience. This research, however, does not support the proposition that program characteristics, or at least those considered here, have an impact on study abroad participants' ways of understanding and addressing cultural

difference. Indeed, the most theoretical proposition one can derive from this research is that, *in study abroad, change in ways of understanding and addressing cultural difference is more a function of the personal characteristics and history that students bring with them into the experience than it is a function of specific characteristics of the study abroad programs in which they participate.* This may suggest that stronger theoretical grounding for research on intercultural development in study abroad might be found in theories of student development than in a theory of learning like Mezirow's.

The other main theoretical construct employed here is in fact Bennett's Developmental Model of Intercultural Sensitivity (Bennett, 1993), which posits a developmental progression through stages from ethnocentrism to ethnorelativism. It is the basis for the Intercultural Development Inventory, used here to gather data about the intercultural development of students studying abroad. But Bennett's model is taken here as a given, as the basis of a research instrument, rather than as a theoretical construct to be tested.

## Methodology

The research reported here is quantitative and longitudinal, employing numerical scores for Developmental Orientation and Cultural Disengagement on the Intercultural Development Inventory (IDI), pre- and post-test, as the dependent variables. The choice of a quantitative approach in part reflected the desire to manage risks of researcher subjectivity, since the researcher's experiences as a faculty member in two study abroad programs in Italy between 2007 and 2010 had led him to question strongly whether participating students were deriving benefits greater than or differ from those that a semester or year at their home institutions would have offered.

This is in part a treatment vs. control study, since it compares IDI score changes between students who studied abroad for a semester (treatment/experimental group) and others from the same institution who remained on their home campus for the equivalent period (control group). But part of the analysis, on the impact of specific characteristics of study abroad programs, obviously only relates to members of the treatment group. The design was only *quasi*-experimental, since it was not possible for the researcher to assign participants randomly to the study abroad and control groups.

The intent is primarily explanatory, specifically to identify factors possibly influencing the intercultural development of students. The approach is largely confirmatory, assessing hypotheses grounded in the literature. But there is also an exploratory dimension, as the study examines the role of cultural identity factors that so far have not figured in quantitative research on study abroad outcomes.

The target population was that of undergraduates at U.S. colleges and universities who study abroad for one semester. The accessible population consisted of Large Urban Private University (LUPU) undergraduates who studied abroad for one semester during the 2014-2015 academic year. LUPU undergraduates studying at the home campus during Fall 2014 provided the control group. LUPU is similar in scope, location, and student demographics to other relatively large private universities that send significant numbers of students abroad every year. Its study abroad population is similar to the overall U.S. study abroad population (Institute of International Education, 2015), with females predominating and minorities under-represented, although the percentage of STEM majors in study abroad at LUPU is lower than the national average.

The study abroad (i.e. experimental) group had a total of 108 members: students

who studied abroad during the Fall 2014 semester, and others who studied abroad in Spring 2015, numbering 66 and 42 respectively. Statistical analysis indicated these two sub-groups could be combined to form a single experimental group. Notably, there was *no* significant difference between the two sub-groups in pre- to post-test *change* in the key IDI Developmental Orientation score (DeltaDO). The control group ($n = 65$) presented some statistically significant demographic differences from the experimental group, but those differences also appeared not to impact on IDI scores.

These group sizes provided adequate statistical power. The power was over .80 (the broadly accepted standard) to detect the statistical significance of a medium-sized effect (Cohen's $d = .50$) in a group comparison employing two-way analysis of variance, with two levels for each independent variable. In correlational analysis, employed here to explore associations between study abroad program factors and pre- to post-test IDI score change for experimental group members, a sample of $n = 100$ provides power of .87, for a two-tailed test with $\alpha = .05$, to identify a medium-sized correlation. All that said, while findings here of statistical significance should be considered valid, findings of statistical non-significance may be attributable to insufficient power due to sample size.

The primary dependent variable (DeltaDO) is change in participants' pre- to post-test scores for Developmental Orientation (DO) on the Intercultural Development Inventory (IDI). The IDI v3 used in this study is a 50-question questionnaire, which identifies the respondent's overall position on the Intercultural Development Continuum (IDC), which posits five orientations toward cultural differences (Hammer, 2009; Hammer, 2012) ranging from monocultural to intercultural mindsets. The IDI also generates a Cultural Disengagement (CD) score, gauging to what degree a participant is

disengaged from their culture of origin. Pre- to post-test change in CD score (DeltaCD) is also a dependent variable of interest in this study.

Based on the literature, a series of personal characteristics and study abroad program characteristics may be associated with change in students' ways of understanding and addressing cultural difference during study abroad. This study assesses the possible association of such factors with pre- to post-test score change for Developmental Orientation (DeltaDO) and Cultural Disengagement (Delta CD).

The personal characteristics variables of interest are: gender, academic major, membership in an ethnic minority, ability to interact effectively in a language other than English, equivalent of one year of college-level language study, membership in more than one national culture, having one or more grandparents born and raised outside the United States, and whether participants spent more than 3 months abroad before participating in the research.

The study abroad program factors of interest are: cultural distance of the study abroad host country from the United States; the use of intentional pedagogy during study abroad to promote intercultural competence; use of a language other than English in the classroom; immersion in the host country educational system; type of housing while studying abroad.

Chapter 3 explains in detail how all these variables are defined and operationalized. Simply stated, in order to conserve statistical power, both the personal and program characteristics variables are dichotomous. With respect to housing, for example, the variable specifically addresses whether participants resided primarily with host country nationals. Under academic major, the question was whether study

participants were majoring in the humanities, social sciences, and foreign languages, or else in other areas. In coding the variables, the researcher relied on self-reported demographic and biographical information from participating students, collected primarily via the IDI itself.

Although many experts consider the duration of study abroad programs to be a significant determinant of their impact, it was not possible to recruit a sufficient number of students going abroad for an entire academic year to allow for meaningful comparison with those going abroad for one semester.

In data analysis, the first step was to compare mean pre- to post-test change in IDI scores (DeltaDO and DeltaCD) for the experimental and control groups. Because the personal characteristics data were available for members of both these groups, it was possible also to examine whether and to what degree those variables had significant associations with differences between the experimental and control groups in IDI score change over a semester, using analysis of variance techniques. (As discussed in detail in Chapter 3, the data met the normality and other assumptions for use of ANOVA, and missing data did not pose significant problems.)

Then, using exclusively data from the experimental group members, the researcher examined correlations between the program variables and pre- to post-study abroad change in IDI scores. Hypothetically, it would have been possible to explore the impact of program factors while controlling for personal factors, but, as discussed in Chapter 4, there was little point to doing so.

Turning to timelines and procedures, recruitment of study participants began late in the Spring 2014 semester. LUPU's study abroad office provided indispensible

support, allowing the researcher to brief students selected for study abroad in Fall 2014 during the required pre-departure orientation sessions, and to do the same later with students who would be studying abroad in Spring 2015. In the recruitment phase, and in all subsequent phases of the study, the researcher carefully respected the requirements of LUPU's Institutional Review Board (IRB) for work involving human subjects.

Of LUPU students studying abroad in Fall 2014, 162 consented to participate in the study. Of those, 110 (68%) went on to complete a SurveyMonkey online form regarding the study abroad programs in which they would be participating. One hundred three students received information needed to log in to complete the pre-test IDI online. Seventy-six participants (47% of those who had consented) completed the pre-test IDI before departing for study abroad. Of those, 66 (41% of those who had consented) completed the post-test IDI after their semester abroad. Among LUPU students studying abroad in the Spring 2015 semester, 127 consented to participate in the study. Of these, 59 (46%) completed the pre-test IDI, and 42 (34%) also completed the post-test administration.

Recruiting participants for the control group was frankly a greater challenge than securing experimental group participants. A first attempt, late in the Spring 2014 semester, involved notices in the student newspaper, signs around campus, and flyers distributed in the main dining facility, and received only one response. With IRB approval, the researcher implemented a revised approach, contacting professors in courses with a significant international dimension, e.g. use of a language other than English or the study of international affairs and international business, asking to brief students in their classes at the beginning of the Fall 2014 semester and solicit their

participation. The response from faculty was gratifying, and 130 students consented to participate in the study. Of these, 80 (62%) completed the pre-test IDI, and 65 (50% of those who had consented) completed the post-test administration at the end of the semester.

In instructions to the study participants, the researcher consistently stressed that the focus of the study was *change* over a semester in ways of understanding and addressing culture difference, and that the study was not intended to rank participants, or in any way judge them, based on Intercultural Development Inventory scores. Although the IDI assigns higher scores to the more intercultural mindsets, suggesting a bias in favor of those mindsets, the researcher stressed that in his view there were no "better" or "worse" scores, and that he did not attach any value judgments to the scores. Participants also understood clearly that their involvement in the study was purely voluntary, and that they could withdraw from the study at any time without consequences. The researcher received no indications of any participant concerns about the IDI.

LUPU's Institutional Review Board agreed that the study posed only minimal risk to participants, with probable harm or discomfort not greater than one normally would encounter in daily life. Security of personal information was thus the main consideration to address in protection of human participants, and the researcher met all relevant requirements.

## Delimitations and Limitations

Student mobility is a crucial dimension of internationalization at higher education institutions in the US and abroad. But it is only one such dimension. While more than 304,000 U.S. students studying abroad in 2013-2014 seems like an impressive number, it

is worth bearing in mind that foreign students in the US were far more numerous: almost 975,000 by 2014-2015 (Institute of International Education, 2015, November 16). Issues of intercultural development among international students in the US certainly are worth examining, but are beyond the scope of this research. It is important to remember as well that student mobility to and from the United States is only part of a much larger picture. In 2010, for example, the estimated worldwide total of mobile students was as high as 4.1 million (de Wit & Engel, 2013; Wildavsky, 2010).

Another concern is the legitimacy of drawing conclusions about more than 300,000 U.S. students, even just the 87% of them who were undergraduates in 2013-2014, based on a total sample of 173 students from a single university. For one thing, the statistical power deriving from this sample size did not guarantee findings of statistical significance for all variables that *might* have emerged as statistically significant in a larger-*N* study. Also, one should be careful about generalizing based on the LUPU sample. Although LUPU is similar to other large private universities that send numerous students abroad every year, and are, in a sense, over-represented in the U.S. study abroad population, these institutions are far from identical. Also, despite important demographic similarities between LUPU's study abroad cohort and the overall population of U.S. study abroad participants, there are differences. It does seem fair to suggest, however, that a sample of LUPU undergraduates who participate in study abroad should be more typical of all U.S. bachelor's degree seekers who study abroad than LUPU students in toto are typical of all U.S. undergraduates.

This study was not intended to challenge the status of study abroad as an "elite experience" for U.S. undergraduates, or identify ways to promote increased study abroad

participation by members of currently under-represented groups, although these are important matters. To the extent it touches on such issues, the study finds that membership in an ethnic minority has no significant effect on intercultural development score change in study abroad.

The specific methods of data collection and analysis employed in the research, like all methods, can detect certain things, but not others. This is not, for example, a study of whether students abroad acquire "world-mindedness," however exactly one may define it. And the multiple stakeholders in study abroad can legitimately propose varying metrics for success. It also is important to underline the consistent use here of the term "intercultural development," which refers to ways of understanding and addressing cultural difference, in describing the primary dependent variable. It is more than just a matter of being true to the *title* of the research instrument, which is, after all, the Intercultural *Development* Inventory. It is an attempt at rigor and careful delimitation.

In the literature, terms such as "intercultural learning," "intercultural competence," and "intercultural sensitivity" coexist with "intercultural development" as apparent synonyms. These terms, however, are not synonymous. It is important to bear in mind that the IDI was "constructed to measure the orientations toward cultural differences described in Bennett's Developmental Model of Intercultural Sensitivity" (Hammer, Bennett, & Wiseman, 2003, p. 421). The DMIS was created as "an explanation of how people construe cultural difference" (p. 423) and Bennett (1993) was always careful to underline that his model was not about *behavior*, but about the mental constructs that people use to deal with difference. Engle and Engle (2004) similarly underline that the IDI "measures an individual's . . . fundamental worldview orientation to cultural

difference, and thus the individual's . . . *capacity* for intercultural competence" (p. 229, emphasis added). It seems advisable to avoid language suggesting that the dependent variables here are anything other, or more than, what the IDI is intended to measure.

Though it has undergone a continuing refinement and validation process, the IDI admittedly was not the only possible choice to produce a useful dependent variable for this study. Paige and Stallman (2007) identify eight instruments besides the IDI intended to gauge culture, culture learning, or intercultural development. Their titles include terms like "conflict style," "strategies," "adaptability," "adjustment," "involvement," "identity," or "world-mindedness," but only the IDI mentions "development." Matsumoto and Hwang (2013) include the IDI in a review of ten instruments intended to measure "cross-cultural competence." Other attempts to assess intercultural learning by measuring acquisition and retention of specific bits of information (Lamet & Lamet, 1981; Tajes & Ortiz, 2010) seem reductive. Gauging the acquisition of intercultural *skills*, e.g. negotiation, seems on the other hand highly subjective and labor-intensive. In sum, though the IDI is the state of the art tool in its specific area, its selection as the research instrument certainly poses limits.

The standard caveats about reliability of self-reported data and about relying on students' own perceptions of something as complex as their foreign language skill are very much in order. Quantitative research's difficulty in demonstrating causation and addressing process also merits attention. Analysis of variance can identify statistically significant differences between groups, as well as associations between variables, but this is not the same as establishing causation. Correlational analysis similarly can suggest associations between variables, but cannot indicate which, if either, of the associated

variables conditions the other. Establishing reasonable confidence regarding causation ultimately will require in-depth analysis of individual cases, employing qualitative, rather than quantitative methodologies. This is consistent with Maxwell's proposed "realist understanding of causality," which "can support a more productive collaboration between qualitative and quantitative researchers," (2004, p. 3) and other arguments against "polarizing research into qualitative and quantitative" (Ercikan & Roth, 2006). But this is for a future phase of the research.

Finally, this is a study conceived within the context of study abroad as currently structured and practiced. It certainly aims to improve practice, but is not intended as a fundamental reimagining of study abroad. It is explicitly geared toward providers and consumers of study abroad experiences. An overarching objective is to make study abroad as cost-effective as possible in promoting participants' intercultural development. An operating assumption is that developing more intercultural approaches to understanding and dealing with cultural difference is a good thing, not a concept that requires deconstruction or ideologically based critiques.

Although greater intercultural development undoubtedly could make a contribution to international understanding, it is left to critics of economic globalization (S. H. Gillespie, 2002; Reilly & Senders, 2009) to propose any dramatic reshaping of study abroad into an instrument for building international economic and social justice. This study simply takes globalization as a given, a crucial part of the world context that justifies, perhaps necessitates, the internationalization of U.S. higher education, with study abroad as one of its important components.

## Key Terms

*Intercultural development* refers to the way in which an individual construes and addresses cultural difference, as assessed in this case using the Intercultural Development Inventory (IDI). The term "intercultural development" is in fact sometimes employed here as shorthand for "level of intercultural development as measured by the Intercultural Development Inventory." It is *not* primarily intended to signify intercultural development as a *process* of change in one's way of construing cultural difference. Nor is "development" in itself intended as a synonym for "positive change," as is frequent in common speech. When the subject of discussion is in fact *change*, whether a decrease or an increase, in level of intercultural development as measured by the IDI, it is clear and explicit in the text.

*Personal characteristics* are demographic characteristics or background/experiences that participants bring with them into study abroad. Detailed definitions of all personal characteristics variables are in Chapter 3.

*Program characteristics* are attributes of the specific study abroad programs in which study participants enrolled. Detailed definitions of all program characteristics variables are in Chapter 3.

Researchers have employed a wide range of terms to identify constructs that they believe influence the outcomes of study abroad. This proliferation of terms is best addressed in the literature review and in the discussion of independent variable definitions in Chapter 3.

# CHAPTER 2: LITERATURE REVIEW

The literature on study abroad outcomes paints a confusing and often contradictory portrait. In fairness, the situation is improving, thanks to the emergence of improved research instruments and the insights that the growing literature on teaching, learning, and personal development can provide (Vande Berg, 2007). The research on study abroad specifically, and higher education internationalization more broadly, is employing increasingly sophisticated analytical tools, both quantitative and qualitative. But the field remains on the whole theory-poor, and inconsistent definitions of the variables that seem to influence study abroad outcomes make it difficult to compare individual analyses and develop interpretative insights. Higher education institutions do collect a large amount of data on study abroad, but primarily still by means of ad hoc surveys of "customer satisfaction" that have limited value for rigorous empirical research (CIEE Conference, 2012, November). In sum, the road ahead still seems long.

Implicitly or explicitly, outcomes assessments all start with some idea of "what we want." The development and formulation of objectives for study abroad, within the broader context of higher education internationalization, is in fact the topic of this literature review's first section, which also highlights some of the historical difficulties in developing a solid approach to study abroad outcomes assessment. Use of theory, for example, has been a vexed issue, and the second section of the literature review discusses the search for a theoretical basis for study abroad research, culminating in recent years with extensive application of Mezirow's theory of transformative learning and Bennett's Developmental Model of Intercultural Sensitivity (DMIS). The third section focuses on the wide range of student and program characteristics that, according to the literature, are

associated with intercultural development in study abroad, and on quantitative approaches so far to studying the impact of such variables. The conclusions highlight fundamental trends and include a table of student and program characteristics the literature suggests may impact on study abroad outcomes.

Three key journals addressing study abroad provided the foundations for the literature search: *Frontiers: The Interdisciplinary Journal of Study Abroad,* the *International Journal of Intercultural Relations,* and the *Journal of Studies in International Education.* The majority of the articles cited below come from these three publications, and those articles in turn provided a strong basis for searching further afield. The ability to access dissertations and theses via ProQuest proved invaluable, as did the ability to search the literature electronically using keywords including "study abroad," "intercultural development" or "intercultural competence" and the names of specific research instruments, e.g. "Intercultural Development Inventory." While the real takeoff in study abroad research has come in the post-Cold War period, Weaver's *Research on U.S. Students Abroad: A Bibliography with Abstracts* (1989) provides an indispensable panorama of earlier study abroad research, identifying many themes and variables that still feature prominently in empirical research.

There are many different criteria for assessing study abroad outcomes. The impact of study abroad, for example, on graduates' careers is a worthwhile area of research. Employers appear to value study abroad when hiring recent graduates (Trooboff, Vande Berg, & Rayman, 2007-2008). Research on Australian study abroad participants found that they reported significant early career benefits, including both skills and increased motivation (Potts, 2015). Study abroad also may have a positive

effect on graduation rates, at least for fifth- and sixth-year undergraduates, if not for their fourth-year counterparts (Xu, de Silva, Neufeldt, & Dane, 2013). But the focus here is on efforts to measure the impact of study abroad on the intercultural development, skills, and competence of students.

## Intercultural Development Objectives of Study Abroad and the Rise of Outcomes Assessment

As noted in Chapter 1, higher education institutions seem convinced of the intercultural development benefits of study abroad. But empirical assessment of such claims is only possible based on some understanding regarding the *objectives and expectations* associated with study abroad.

### The Long Road to Standard Setting

U.S. efforts at standard setting go back to the 1920s, when the first junior year abroad programs were being established, but greatly accelerated after World War II, e.g. through the work of the Council on International Educational Exchange (CIEE) and its precursors, whose 1965 *Guide to Institutional Self-Study and Evaluation of Educational Programs Abroad* dealt inter alia with "The Cross-Cultural Encounter." By the mid-1960s, a lively debate had emerged over the goals of study abroad, between advocates of a language study and cultural immersion model, geared toward upper-level students, and those who placed study abroad in the broad American tradition of liberal education, with the goal of promoting student maturity and building international understanding. The 1969 *Policy Statement on Undergraduate Study Abroad* of the Federation of Regional Accrediting Commissions of Higher Education (FRACHE) came down on the side of making study abroad highly selective, with a strong focus on language proficiency and on providing experiences unavailable on the home campus, but the debate continues to this

day. In the 1970s several U.S. organizations, including notably the National Association of Foreign Student Advisers (now NAFSA: Association of International Educators), worked on developing standards and assessing study abroad outcomes. The 1990s also saw particular attention to such matters, culminating with the creation in 2001 of the Forum on Education Abroad, a group of colleges and universities strongly committed to internationalizing education. The Anti-Trust Division of the U.S. Department of Justice and the Federal Trade Commission in fact recognized the Forum as *the* U.S. standard setting organization for study abroad (Comp & Merritt, 2010).

Until about 20 years ago, study abroad came under the rubric of "international education," but is now more commonly referred as part of the "internationalization" of higher education institutions. (See Chapter 1.) Knight (2011, p. 215) argues for a "neutral" definition of internationalization as "the process of integrating an international, intercultural, or global dimension into the purpose, functions, or delivery of post-secondary education." She also distinguishes between "internationalization abroad" and "internationalization at home." This dissertation and the majority of the literature reviewed below deal with *internationalization abroad*, primarily from the standpoint of *activity*, i.e. actions related to the exchange of students, and *competency*, or more specifically the development of competencies (de Wit & Engel, 2013).[7] Knight (2011, p. 219) in fact underlines indications of "renewed emphasis on internationalization as a means to enhance . . . international and intercultural understanding and skills for students"

[7] As noted above, however, the key research instrument, the Intercultural Development Inventory, is a measure of intercultural development, not directly of competency.

Such a rationale is evident in the Forum on Education Abroad's standard-setting efforts. Its key product is the *Standards of Good Practice for Education Abroad,* which first appeared in 2004. The 2011 edition stressed that an organization providing study abroad opportunities should

- "have stated educational objectives that foster student learning and development . . . an established process for regularly collecting and analyzing data to assess the degree to which it is accomplishing each [objective]; and [utilize] these findings to monitor, maintain, support, and continuously improve student success"
- foster intercultural understanding
- encourage language and/or intercultural communication skills
- encourage student development, including tolerance for ambiguity.

Of course, it is one thing to set standards and quite another to implement them. For example, the Forum's *State of the Field Survey 2009* reported that only 41% of the institutions participating in the survey had "clearly-stated learning outcomes for each of their [study abroad] programs" (2010, March, p.11). The situation four years later was somewhat better, with 56% of the responding institutions reporting they had identified learning objectives, though only 39% indicated they had plans in place for assessing learning outcomes (Forum on Education Abroad, 2014, April, p. 7).

Another important standard-setting document for study abroad is the *IES Abroad MAP (Model Assessment Practice) for Study Abroad*, developed in 1999 by IES Abroad, a major provider of study abroad opportunities, with the explicit objective of promoting program excellence (Gillespie, Braskamp, & Braskamp, 1999). The 5th edition of the

*IES MAP* appeared in 2011. With respect to student learning and intercultural development, it offers the following overall guidelines:

> The development of students' intellectual abilities is the foremost concern in an academic program—critical thinking skills, growth as independent learners, knowledge and use of the host language. In a program of study abroad, the development of intercultural understanding is also significant, and desired outcomes in this category direct both the curriculum and co-curriculum. Emphasis is placed on students' acquiring adaptive skills to facilitate their immersion in their host country and support them in further study or work abroad. (IES Abroad, 2011b, p. 8)

Relatively few of the more detailed guidelines *specifically* relate to intercultural development, knowledge, or competence, though they state that "academic studies, support services, and integrative activities [should] contribute to students' communication skills across cultures" and highlight the importance of "assessment of students' cultural learning." Orientations and integrative activities "are designed to assist students in adapting to the culture of the host country and in becoming more comfortable in interacting with persons of different cultural backgrounds," and students are expected to self-report on their intercultural learning. "Developing self-awareness in a cultural context" is among the intrapersonal growth goals. The curriculum should "reflect the political, social, and cultural diversity of the host country" and "enhance student engagement in [its] intellectual, political, social, and cultural institutions" (IES Abroad, 2011b, pp. 10-12).

In 2011 the first edition of the *IES MAP for Language and Intercultural Communication* appeared. Its guiding principle is that language skills and cultural knowledge are closely linked, and that effective adaptation to new and different environments requires a combination of the two (IES Abroad, 2011a).

"Intercultural competence" is a skill that students are expected to develop in study abroad. The term, however, is not easy to define. Interviewing both institutional administrators and intercultural scholars, Deardorff (2006) found that their definitions of intercultural competence varied widely. In a 2011 study, she notes that the concept of intercultural competence still is "too often . . . used (as are other similar terms) without a concrete definition" (p. 66). Odağ, Wallin, and Kedzior (2013) also point to the complexity of defining intercultural competence, and how student definitions can differ markedly from those of intercultural scholars.

Although neither the Forum on Education Abroad nor IES uses the term, "building global citizens" is also popular shorthand for the objectives of international education. The 2009 *Handbook of Practice and Research in Study Abroad,* published by the Association of American Colleges and Universities, is almost totally concerned with using study abroad to promote global citizenship. One of the contributors, however, notes that "the specific term *global citizenship* [may be] only hazily defined on campus (or not unpacked at all)" (Schattle, 2009, p. 18). The lack of a clear definition makes it difficult to establish the relationship between intercultural competence (or development or skills) and global citizenship

The Global Citizenship Scale developed by Morais and Ogden (2011), for example, includes global competence as one of the dimensions of global citizenship,

along with social responsibility and global civic engagement. In turn, the three components of global competence are intercultural communication, global knowledge, and self-awareness. In essence, intercultural competence seems to be subordinated to global citizenship. Other authors, e.g. Tarrant, Rubin, and Stoner (2013), draw analogies between global citizenship and intercultural development. Clarke, Flaherty, Wright, and McMillen (2009), on the other hand, employ Hett's 1993 Global-Mindedness Scale as part of their instrument for testing the impact of study abroad on "intercultural proficiency."

While the aforementioned standards/expectations are the appropriate ones to use for U.S. students going abroad, one must beware of overgeneralizing. Expectations of study abroad outcomes can be culturally specific. Teichler and Steube (1991) pointed out long ago, for example, that U.S., European Community, German, and Swedish expectations, whether on the part of students or on the part of administrators, differed very significantly, with implications for program design and evaluation.

**The Turn Toward Outcomes Assessment**

In addition to the importance of standards of good practice, and of excellence in curriculum and program design, the Forum on Education Abroad's mission statement also stresses outcomes assessment and other research. Do existing study abroad programs in fact produce the intercultural development impacts that the standard-setters expect? Extant research provides no unambiguous answer. Indeed, even framing the question in terms of "learning outcomes" is comparatively new (Steinberg, 2007).

Early research on the impact of study abroad on students grouped diverse outcomes under the broad heading of "attitude change," and this focus on attitudes has

persisted, for example in Sharma and Mulka (1993) and Van Hoof and Verbeeten (2005), and in the work of scholars who approach study abroad from what are usually termed "critical" perspectives (Dolby & Rahman, 2008; S. H. Gillespie, 2002; Reilly & Senders, 2009). Odağ, Wallin, and Kedzior (2015) interestingly point out that students themselves focus heavily on attitudes when asked to define intercultural competence.

**The Cold War era.** Sell wrote in 1983 that, overall, "little research [had] been conducted on attitude change in U.S. students who participate[d] in foreign study experiences." True, as early as 1958, McGuigan had studied the psychological impact of study abroad on a group of U.S. undergraduate women who studied in Paris for a semester. Doctoral dissertations by Leonard (1959), Kafka (1968), Morgan (1972), and Bower (1973) all had examined "attitudinal changes" among study abroad participants, respectively noting a reduction in political and economic conservatism, heightened esteem for the US at the expense of the host country, differences in adaptation strategies based on the individual backgrounds of students, and relatively little "positive" change in dimensions such as openness or candor (Weaver, 1989). Some studies reflected disappointment over a lack of change toward international, liberal, open-minded values (Hensley & Sell, 1979; Marion, 1974; Price & Hensley, 1978, April), while others found mixed results (Carsello & Creaser, 1976; Lamet & Lamet, 1981). Focusing on cognitive development, McGhee's 1983 master's thesis found no difference between undergraduates who studied abroad and those who did not over the same academic year (Weaver, 1989), but Kauffmann (1983) and Kauffmann and Kuh (1984, April) found decided increases among study abroad students in self-esteem, independence, reflective thinking, and concern for others.

These varied results suggest that Sell (1983), if perhaps too harsh regarding the quantity of research, was right to doubt that attitude change in study abroad had been empirically verified. She criticized loosely structured experimental designs, little use of follow-up studies, lack of theoretical grounding, and especially the absence of a consensus concerning what to measure. Already in 1975, Hull and Lemke had strongly criticized the extant empirical research literature, whether based on standardized or ad hoc instruments. In a 1976 article, Flack had underlined "an inadequate differentiation and articulation of the concept of results" of study abroad. Sell and Craig (1982, April) pointed to the difficulty of detecting significant change in abstract concepts such as world-mindedness and ethnocentrism. Barber (1983) underlined the difficulty of producing assessments of study abroad impacts that could meet the standards of social science, since that would mean devising objective measures of knowledge, skills, attitudes, expectations and outcomes, to be applied before and after the study abroad experience. Sell and Brown (1984) also specifically underlined the gap between self-reports or program director reports of personal growth and more "objective" measures.

**Since the Fall of the Wall.** In the first volume of *How College Affects Students* (1991, p. 306), Pascarella and Terenzini argued that the "literature in [the area of study abroad was] not distinguished for the rigor of its research designs and methods." And the assessment in their 2005 follow-up volume was only in part more sanguine. In 2004, Paige, Cohen and Shively still noted "a consistent call for more rigorous research which would employ . . . longitudinal and experimental designs, valid and reliable instruments, multiple research (quantitative and qualitative) approaches, and larger samples" (p. 254). Engle and Engle (2004) concluded that long-standing reliance on "self-reported,

subjective methods: a written end-of-term student questionnaire; anecdotal evidence and conversation with current and past program participants; and the impressions of on-site administration, faculty, and host families" was no longer appropriate in a "world that value[d] quantitative measures" (p. 220). Not long afterward, however, Vande Berg (2007, pp. 392, 396) would argue that research on the impact of study abroad was improving, thanks inter alia to the dual stimulus of the "assessment movement" in higher education and to the "impressive body of research on learning and teaching that has been amassed over the last several decades," leading to the Student Learning paradigm. As the following discussion suggests, there are grounds for optimism, although some caution also is in order.

## The Role of Theory

The role (or non-role) of theory in study abroad research, for example, is a vexed question. Trowler (2010, July 20-22, p. 4) contends that "much work in higher education research is theory-poor: in the majority of cases any theoretical perspective is only implicit and broader engagement with theory is absent." And study abroad research certainly is not exempt from such criticism. In a field originating in the interests and needs of practitioners (Dolby & Rahman, 2008), modest attention to theory is hardly a surprise. In 1990, Carlson, Burn, Useem, and Yachimowicz admitted that "heightened levels of international understanding resulting from a foreign sojourn remain[ed] difficult to document. One reason for this [was] that there [was] little theory to guide . . . conceptualization of what international understanding [was]" (p. 18). Later assessments largely concur that comparatively little "focus has been given to the development of a culture learning theory specifically related to the study abroad field" (Hoff, 2005, p. iv).

As recently as a 2013 article on the effects of study abroad on intercultural competence, Salisbury, An, and Pascarella underline the continued "lack of a grounded theoretical framework" (p. 3).

In fairness, however, work that is not heavily or explicitly based in theory still can be very useful, practically speaking. One can identify at least four "theory-poor" approaches to study abroad research: 1) the customer satisfaction survey; 2) collection and analysis of data without reference to theoretical constructs; 3) measuring acquisition of specific information; 4) quasi-theoretical proposals for analytical categories, based on study abroad practice.

Institutions collect a great deal of data every year regarding the impact of study abroad. But a large-scale study in 2000 by the Institute for International Education (IIE) and NAFSA: Association of International Educators concluded that the majority of the profession was "far from engaging in serious outcomes research, beyond the question of student satisfaction" (cited in Durrant & Dorius, 2007, p. 34). The Forum on Education Abroad's *State of the Field 2011* report (2012, March) confirmed a continued overwhelming reliance on "internally developed instruments," or no formal assessment at all, along with a lack of clarity regarding the actual use of assessment data within institutions.

The 2005 study by Van Hoof and Verbeeten is an example of a theory-poor "customer satisfaction survey" approach, based on an ad hoc questionnaire, requiring about 10 minutes to complete. Bender, Wright, and Lopatto (2009) ask students more probing questions about changes in intercultural knowledge and competence of students

in international science programs, using a survey developed at Grinnell College, but do not indicate any basis in theory.

Norris and Dwyer (2005) and Norris and Gillespie (2009) derive significant conclusions regarding the impact on students of different study abroad models, using a fifty-year survey of alumnae/i of Institute for International Education of Students (IES) programs. The survey was not designed, however, on the basis of an explicit theoretical model, which makes it difficult to compare the resulting studies to others.

Orahood, Woolf, and Kruze (2007), using an online survey instrument, assess the career impact of study abroad on graduates of the Kelly School of Business at Indiana University. They find study abroad alumnae/i are less likely to find work with international clients/customers than those who did not study abroad. Such unanticipated results seem quite frequent in research on study abroad outcomes, suggesting the need for more solid predictive theory.

Trying to get away from reliance on students' perceptions of their study abroad experiences, Tajes & Ortiz (2010) focus on students' acquisition of specific information on a foreign society and on the U.S. One may question, though, whether acquisition of factual information easily found in any almanac demonstrates critical and analytical skills, as the authors claim.

Without being explicitly theoretical, study abroad practitioners still can systematize their experiences into useful analytical schemes. An example is the influential hierarchy of study abroad "levels" by Engle and Engle (2003), based on seven key aspects, e.g. length of sojourn, that determine the probable extent of the intercultural

experience in study abroad. This work helps provide a basis for research designed to evaluate the impact on students of different study abroad program types.

A shortage of theory has implications, of course, for methodological choice. The prevalence of ad hoc survey instruments in theory-poor research, for example, makes the results of different studies very difficult to compare, and leaves the reader with perpetual questions about the validity of the survey instruments. These can overlay on the well-known problems with students' self-reported data regarding their learning.

A way out of the impasse could come from the theory-generating process known as "grounded theory" (Charmaz, 2006; Strauss & Corbin,1998). This approach, however, has not yet made much progress in the study abroad field. In her study of global citizenship development among U.S. and Australian students, for example, Dolby (2008) employs grounded theory *procedures*, but theory construction is not part of her agenda. A more recent grounded theory approach is Coryell's 2011 research on participants in a program in Italy. She stresses the importance of reflection and identifies four main interactions of individual learners: with other learners and professors, with academic content, with native culture and individuals, and with themselves. This research seems to be moving toward a theory of cultural learning in study abroad.

**Transformative Learning Theory**

For the time being, one must rely also on broader theories of learning or models of student development in framing research on students' intercultural learning abroad. Carlson, Burn, Useem, and Yachimowicz (1990), for example, found theoretical bases in the works of Allport, Block, Festinger, Luria, and Piaget, and treated "disequilibrating" experiences, i.e. mismatches between external events and the cognitive and affective

mental organization of the individual, as the source of both cognitive and emotional development.

A similar but more unified perspective is Mezirow's transformative learning theory, launched in 1978 but heavily revised since then, especially during the 1990s (Kitchenham, 2008). Along with Bennett's Developmental Model of Intercultural Sensitivity (DMIS), transformative learning theory has come into prominence since the end of the Cold War, and has helped shape recent research on students' intercultural development in study abroad.

Mezirow himself (1997, p. 5) describes transformative learning as "the process of effecting change in a *frame of reference*," i.e. a structure of "assumptions through which we understand our experiences" and which "selectively shape[s] and delimit[s] expectations, perceptions, cognition, and feelings." We tend to reject ideas that do not fit in with our preconceptions. But "when circumstances permit, transformative learners [can] move toward a frame of reference that is more inclusive, discriminating, self-reflective, and integrative of experience." This meshes inter alia with assertions in the study abroad literature about the importance of students' *agency* in the development of intercultural competence (Covert, 2014).

In defining the objectives of study abroad, Brewer and Cunningham (2009a) strongly emphasize transformative learning, notably Mezirow's concept of *disorienting dilemmas,* experiences that lead to questioning, assessment, and even radical transformation of the taken-for-granted assumptions in individuals' frames of reference. Notably they also point out how "those working in the area of intercultural education describe the process of developing intercultural competency . . . using language similar

to that of Mezirow and others whose focus is transformative learning" (p. 10). For example, in his 1995 dissertation on Japanese and Canadian exchange students, Whalley found at least some confirmation of all four of Mezirow's predicted forms of learning: through existing meaning schemes, through new meaning schemes, transformation of meaning schemes, and (to some extent) learning through perspective transformation.

Hoff's 2005 dissertation on the culture learning process in study abroad is partly grounded in transformative learning theory. Comparing two groups of students, Hoff found that those receiving intentional intercultural pedagogy may have reflected more on their experiences than the control group, and thus advanced more in intercultural development. In his 2010 dissertation on the impact of short-term international experiences, Ogden developed a transformative education model based on Mezirow's theory, positing education abroad as creating a disorienting dilemma and thus transforming students' meaning perspectives. But when he administered a measure of global citizenship to Pennsylvania State students who had brief study abroad experiences, imbedded in courses at their home campus, and compared them to students in similar courses that did not include an overseas experience, Ogden found that embedded education abroad did "little to mediate significant changes in students' global citizenship," concluding that the short-term international experiences "were not disorienting enough" (p. 159). In any case, transformative learning theory suggests that specific characteristics of study abroad *programs* could make them more (or less) likely to promote transformation, e.g. in students' ways of understanding and approaching cultural difference.

Mezirow of course has no monopoly on the notion that self-reflection is a crucial component of the learning process, and even research that does not specifically refer to the transformative learning theory can attribute particular importance to reflection. For example, in assessing the learning impact of the University of Minnesota Center for Advanced Research on Language Acquisition (CARLA)'s *Maximizing Study Abroad* guide, Paige, Cohen, and Shively (2004) included student e-journals in their research design. They asked subjects to reflect on their readings in the guide and on their language and culture learning experiences. Other studies that involve journals as part of the research design are Citron's 2002 ethnographic study of what he terms "third culture formation" among U.S. students in Madrid, and Ingraham and Peterson's 2004 assessment of the impact of study abroad on the learning of Michigan State students. Neither Citron nor Ingraham and Peterson, however, use theoretical models to justify, shape, or interpret data from the student journals.

Using reflection in a research project is also a different thing from building it into an actual study abroad program, as part of the learning process. Williams (2009), for example, proposes a Reflective Model of Intercultural Competence, but the reflection in this case is decidedly ex post facto. Santanello and Wolff (2007-2008), on the other hand, describe how they incorporated assessment, including reflection, directly into a study abroad program with a strong service-learning component that they ran in Costa Rica. Also coming from an experiential learning perspective, Pagano and Roselle (2009) argue that reflection is not the same thing as learning, and propose going beyond reflection to a problem-solving, applied level they term *refraction.* The main foundational theory they refer to is Kolb's model of experiential learning, which

incorporates both experience and reflection, but they do make a quick bow to Mezirow as well, arguing that international service learning and international internships can facilitate construction of new perceptions about the host country, leading to transformative learning. Kolb himself has highlighted the relevance of his theory to promoting intercultural development in study abroad (Passarelli & Kolb, 2012).

**Developmental Models and their Operationalization**

It makes sense to examine study abroad outcomes through both learning and developmental perspectives. Merriam (2004, p. 6) underlines that in Mezirow's transformative learning theory "the link between development and learning is explicit," and that "numerous studies have documented that growth and development are outcomes of transformational learning." In 1998, Immelman and Schneider proposed a conceptual model combining Erikson's developmental theory and Bloom's taxonomies of educational objectives. They argued, based on focus groups, that "educational gains in study-abroad programs [occurred] primarily in the affective and social domains of learning, including values clarification, attitude change, *personal development*, and social maturity" (p. 59; emphasis added).

Like most developmental models, Bennett's Developmental Model of Intercultural Sensitivity is structured in stages, in this case of ever-increasing intercultural sensitivity, based on how one construes and deals with cultural difference. The main vector is from ethnocentrism to ethnorelativism, and the six stages are Denial, Defense, Minimization, Acceptance, Adaptation, and Integration (of difference into one's own identity). Bennett rejects the idea of defining intercultural sensitivity in terms of behaviors, focusing instead on development, and argues that "it is the construction of

reality as increasingly capable of accommodating cultural difference that constitutes development" (Bennett, 1993, p. 24). His eclectic sources of inspiration include psychologist George Kelly, linguist Benjamin Whorf, anthropologist and cross-cultural researcher Edward T. Hall, psychologist Edward C. Stewart, and international relations scholar Marshall R. Singer, all linked by the view that "the reality which we experience is constructed according to variable cultural patterns and that these differences are the crucial factors in our attempts to understand and communicate experience cross-culturally" (p. 24). Bennett also underlines that his model is based on "twenty years of teaching and training experience in intercultural communication with a wide range of learners" (p. 25). In fact, much work on intercultural communication and competence historically has been rooted in the needs and concrete work of practitioners.

**The Intercultural Development Inventory (IDI).** While transformative learning and reflection models lend themselves primarily to qualitative studies, developmental models lend themselves more readily to quantitative assessment. In research, the Developmental Model of Intercultural Sensitivity has been operationalized primarily through quantitative instruments, most notably the Intercultural Development Inventory (IDI), which Bennett developed in cooperation with Mitchell Hammer. (Details of the IDI, the main data collection instrument employed for this dissertation, are discussed in Chapter 3.) The Georgetown Consortium Project, a study involving almost 1300 students, uses pre- and post-test administration of the IDI to assess the impact of study abroad on the intercultural development of students (Vande Berg, Connor-Linton, & Paige, 2009). Though the study shows mean gains in intercultural development for study abroad students as compared to a control group, some students do not show intercultural

development gains at all. The study is especially relevant to this dissertation in that it looks at the impacts of student and program characteristics (see below).

Engle and Engle (2004) already had used the IDI (pre- and post-test) to assess the impact of a small, highly selective study abroad program in France that applies intensive intercultural pedagogy. On the average, student groups attained 33% of achievable progress toward a "perfect" IDI score, with over half making 30-100% of their achievable progress. Pedersen (2010) studied three groups of students: a control group and two that were engaged in a yearlong, self-contained study program in the U.K., with one of the groups taking a Psychology of Group Dynamics course, strongly focused on intercultural effectiveness. Through pre- and post-testing using the IDI, it emerged that only the group exposed to intentional intercultural pedagogy showed a statistically significant increase in "intercultural effectiveness."

Combining methodologies, Endicott, Bock, and Narvaez (2003) sought to connect intercultural development, as measured by the IDI, with moral judgment, measured using the Defining Issues Test, and multicultural experience (based on a questionnaire devised by two of the authors). They argue that both moral and intercultural development entail a shift from rigid to flexible thinking, and should be linked. Analyses indicate, however, a weak correlation between intercultural sensitivity and moral judgment, though the instruments employed to measure the two are dramatically different.

A partially skeptical take on the IDI comes from Rexeisen, Anderson, Lawton and Hubbard (2008), who used a sample of 39 students from a medium-sized, private Midwestern university, participating in a semester-long study abroad program in London. Importantly, the study employed not just pre- and post-test assessment, but also a third

assessment, four months after the end of the program. The data did not confirm all the authors' expectations of intercultural development. On average, students did have higher IDI scores at the end of their study abroad experience, but the difference in scores between the pre-test and the follow-up test four months after the program had ended was not statistically significant. On this point, see also Rexeisen (2012-2013). While defending their choice of research tool, the authors also underline the limitations of the IDI and call for further research "employing *other* empirically validated measures of intercultural development" (p. 16, emphasis added).

The IDI is probably the best-known instrument for measuring how people understand and address cultural difference, but a number of other instruments present some similarities. Although their work raises some concerns discussed in Chapter 5, Matsumoto and Hwang (2013, p. 853) catalog ten instruments, including the IDI, intended to "predict successful adjustment or adaptation to new cultural environments . . . or living or working in multicultural environments with people from cultures different from [one's own]," and based on a "culture-general approach rather than a culture-specific approach."

**The Global Perspective Inventory (GPI).** Another significant assessment instrument in study abroad research, though not discussed in Matsumoto and Hwang (2013), is the Global Perspective Inventory (GPI), based in part on the work of intercultural communication scholars, including Milton Bennett, but also on the concept of "intercultural maturity," developed by King and Baxter Magolda, which in turn draws on Kegan's breakdown of personal development into cognitive, intrapersonal, and

interpersonal domains.[8] The IDI does not employ such a tripartite breakdown, and seems more narrowly focused than the GPI on the mental constructs through which one construes diversity. In fact, when Anderson and Lawton (2011, p. 97) administered both instruments to the same participants in research on study abroad impacts, they "found no meaningful correlations between the IDI and GPI scales; it is apparent that the IDI and GPI measure different dimensions of intercultural development." Indeed, Ogden (2015, p. 17) categorizes the GPI as a gauge of "global knowledge and awareness," rather than of "culture learning and intercultural development" like the IDI.

The GPI's subscale for "Interpersonal Social Responsibility" also comes across as quite prescriptive regarding behavior or action. GPI items based on statements such as "I work for the rights of others" and "I think of my life in terms of giving back to society" may be perceived as originating in specific philosophical or ideological imperatives. Braskamp, Braskamp, and Engberg of the Global Perspective Institute, Inc. (2013, August, p. 10) argue that "persons taking the GPI do not have reason to present themselves in a certain way since the GPI is not a selection instrument," but one might question whether the GPI's creators have done a thorough job of removing items that are "easy to respond to in a 'highly socially desirable' manner."

In any case, Braskamp, Braskamp, and Merrill (2009) administered the GPI to nearly 250 students participating in 10 different study abroad programs, from five different institutions. Students reported the greatest increase in their knowledge of different cultures, followed by an increase in self-confidence, and "statistically significant

[8] See https://gpi.central.edu/index.cfm?myAction=Development.

gains" in the interpersonal domain, e.g. greater comfort with those different from them and a "greater commitment to assisting others grow in a global world" (p. 107).

Doyle (2009) used the GPI in a study of six students in Central College's German language immersion program in Vienna, who reported many benefits, including greater respect for and understanding of cultural differences, plus a stronger sense of being able to navigate different cultures. The GPI relies, however, on participants' self-assessments of some complex skills, and research, for example on physicians, suggests self-assessments can be quite inaccurate, as compared to other performance measures (Ward, Gruppen, & Regehr, 2002; Davis et al., 2006).

Another work based on a theory of development is McKeown (2009), which uses Moore's Measure of Intellectual Development (MID), based on Perry's influential model of intellectual development among college students. McKeown finds that study abroad students who are having their first meaningful international experience register gains in intellectual development far beyond those of peers who have some previous international experience. This indicates that a student's characteristics can condition the benefits they derive from the study abroad experience. (See below).

**Factors Influencing Intercultural Development in Study Abroad**

Mezirow and Bennett, the former very explicitly, the latter implicitly, raise questions about *why* students change. But the question is far from new. In 1983, for example, R. B. Craig, an experienced director of study abroad programs, suggested that failure to uncover attitude change as a result of study abroad programs lay in the failure of researchers to focus on two *independent* variables: 1) "what the student takes with him" into study abroad; 2) "in-country experiences." Under the former category, Craig

included language competence, prior foreign study/travel experience, openness of personality, maturity, gender, reasons for participating, exposure to appropriate area courses, and participation in pre-program orientation classes. As in-country factors, Craig listed host family environment, presence/absence of an American roommate, extent and type of contact with host nationals, amount and type of travel, courses taken, and any traumatic personal experiences (Craig, 1983, May; Weaver, 1989). Already in 1974, Davies had made a somewhat similar distinction between "background variables" and "host culture variables" that helped shape students' perceptions of their study abroad experiences. The former included gender, major, and parents' occupation, while the latter included length of stay and language competence (Weaver, 1989).

The distinction between two categories of independent variables — those related to the individual student, the others to the study abroad program/experience — remains just as relevant today. As Sutton and Rubin's 2004 assessment of outcomes for University System of Georgia students posed the question: "Effects of studying abroad, or effects of better students?"

**Personal Characteristics of Students**

In the Forum on Education Abroad's "toolkit" for assessment of study abroad programs, Bolen (n.d.) stressed that we should "begin to create basic data sets that could feed into more sophisticated outcomes assessment processes" by doing a better and more coordinated job of gathering student data. It is fair to expect that characteristics of individual students that antedate their participation in study abroad, i.e. what they bring with them into the experience, may influence outcomes regardless of the specific characteristics of their study abroad program. Writing in 1986, for example, Carlson

agreed that study abroad made "a difference," but also asked: "For whom is the difference greatest? For whom is it least, or not at all? And why?" (cited in Weaver, 1989, Carlson, J.S., 1986, March).

A number of scholars have attempted wide-ranging assessments of how personal characteristics may influence study abroad outcomes. In addition to the aforementioned works by Davies and Craig, some other Cold War-era scholarship addressed the connection between the personal characteristics of students and their study abroad outcomes. In his 1972 dissertation on cultural adaptation of U.S. students in Switzerland, Morgan found that students attributed much of their change to the influence of family, peers, travel, and the fact of leaving home. Morgan also distinguished between cultural relativists and "culture opposites" in how they responded to cross-cultural experience, and not surprisingly concluded that the developmental history and cultural baggage of students, as well as their images of their home and host countries, influenced patterns of adaptation. Kafka (1968) sought to assess the impact on students' world-mindedness of personal characteristics such as academic grades and foreign language skill, along with program factors like residential involvement and number of close foreign friends, but found no connection.

Koester (1985, May) made the most concerted effort until that time to understand the characteristics of U.S. students who went abroad, based on over 8000 biographical questionnaires completed by applicants for the International Student Identity Card. Though the study could only assess the impact on students of *previous* foreign experiences, it did convincingly identify a number of demographic factors influencing student choices regarding further international experiences. As compared to the overall

college student population, students interested in foreign experiences were more likely to be majoring in foreign languages, liberal arts, or social sciences and to speak a second language already. Also, about 50% already had traveled internationally. The survey also bore out the powerful influence of family and friends on decisions to go abroad. The image of study abroad as an "elite" experience reflected in Koester's study seemingly is confirmed by the historically low representation of students from minority groups, which if anything is becoming even more marked. Salisbury, Paulsen, and Pascarella (2011) argue, however, on the basis of human capital theory and intensive research, that the *structures of motivations* for study abroad are fundamentally different among African-American, Asian-American, Hispanic, and White students.

Carlson, Burn, Useem, and Yachimowicz (1990) focused on a number of "sojourner" variables that conditioned students' self-reported experiences in study abroad, via pre- and post-test administration of an ad hoc questionnaire, and employing multiple regression. The analysis, however, presented several problematic aspects. Importantly, the sojourner (i.e. personal) variables were a mixed bag, including many that seemed more like dependent than independent variables: academic accomplishment and intellectual development while abroad; travel while abroad; academic and other problems while abroad; opinions concerning the host country; change in knowledge about the host country; multiple variables involving international understanding, learning style, and self-efficacy. The authors analyzed the association of these variables with dependent variables such as reported change in language proficiency, satisfaction with study abroad, integration into the host university, knowledge about the host country, worthwhileness of study abroad, academic problems while studying abroad, and integration/lifestyle

problems. The authors themselves admitted that the "distinction . . . between independent and dependent variables . . . [was] not unambiguous" (p. 75), calling into question the significance of associations between variables.

Post-Cold War research also devotes considerable attention to how the personal characteristics of students help shape the outcomes of their study abroad experience. The broad-ranging Georgetown Consortium Project (Vande Berg, Connor-Linton, & Paige, 2009), for example, employed a range of personal characteristics independent variables. Females made significant gains in study abroad, while males did not. Other personal characteristics associated with statistically significant intercultural development gains in study abroad were academic major and prior language study. Previous experience living in another culture and prior study abroad were not associated with intercultural development gains, a somewhat unexpected result.

**Academic major and grade point average.** Analyses of the impact of academic major on study abroad outcomes, however, do not come to uniform conclusions. Kurt, Olitsky, and Geis (2013) find little impact of academic major on global awareness, and, in a study of University of Georgia students, Sutton and Rubin (2004) similarly find no interaction between study abroad and academic major in shaping student outcomes. They also find no statistically significant impact for students' self-reported grade point averages (GPA), largely confirmed by Kurt, Olitsky, and Geis. Rexeisen et al. (2008) similarly find little correlation between GPA and intercultural development changes in study abroad.

**Gender.** The impact of gender on study abroad outcomes is not entirely clear. Baty and Dold in 1977 examined the month-long cross-cultural homestay experiences of

59 undergraduates in Mexico and the U.S. Southwest, finding that the experience was more unsettling for males than for females (Weaver, 1989). A few more recent studies also indicate how study abroad experiences and outcomes can vary by gender (Jessup-Anger, 2008). But the specific weight of gender, as opposed to other variables, can be difficult to identify. The Lake Erie College graduates (all women) discussed in Pelowski's 1979 dissertation had different responses to study abroad based on whether they were four-year Lake Erie students or had transferred, on their academic majors, and on whether they were participating in the college's four-year core curriculum program. Transfer students and those who participated in the core curriculum placed higher value than others on their study abroad experience. The study suggests that gender may operate in tandem with other personal characteristics in shaping individuals' study abroad outcomes (Weaver, 1989).

A number of studies run counter to the finding of the Georgetown Consortium Project that only women gained in intercultural development during study abroad, and of Stebleton, Soria, and Cherney (2013) who found greater study abroad gains for women than for men in linguistic and cultural competence in a language other than English. A study employing the Intercultural Development Inventory (Rexeisen et al., 2008) found overall intercultural development gains for men studying abroad, but not for women. In another IDI-based study, gender was one of the variables that Pedersen (2010) considered as potentially influencing intercultural development in study abroad, only to rule out its significance. Using survey and case study methods with students who had participated in Michigan State's program in Nepal, Farrell and Suvedi (2003) found no gender-based differences in how students perceived the program's impact. Another survey-based study

also found hardly any significant gender-based differences in students' perceptions of their study abroad experiences (Van Hoof & Verbeeten, 2005). McKeown (2009) in his study of *intellectual* development among study abroad participants, similarly found "no pattern of difference in development between the genders" (p.84).

In perhaps the most methodologically sophisticated study on such matters, Salisbury, An, and Pascarella (2013) looked at intercultural competence gains in study abroad while controlling for the selection effect, whereby females with well-educated parents, with relatively high ACT scores and attending a liberal arts college (among other factors) were most likely to participate in study abroad. They concluded that the statistically significant gains they found in intercultural competence, as measured by the Miville-Guzman Universality-Diversity Scale, were *not influenced* by gender, race, pre-college intercultural competence, ACT scores, or type of postsecondary institution attended.

**Language proficiency.** Other studies reinforce the Georgetown Consortium Project's conclusion that pre-existing foreign language skill is associated with intercultural gains in study abroad. Engle and Engle (2004) point out that students at the selective and intensive American University Center of Provence who already had taken two years of a foreign language tended to demonstrate comparatively strong intercultural development, as measured by the IDI. A recent qualitative study of students' perceptions of their intercultural (in)competence in study abroad (Covert, 2013) underlines the importance students attribute to foreign language skills or lack thereof. Yu and Shen (2012), from a somewhat different angle, highlight the importance of host country language proficiency and confidence for cross-cultural adaptation of Chinese degree-

seeking students in Australia. Savicki, Arrúe, and Binder (2013-2013), on the other hand, compared the intercultural adaptation of participants in two different study abroad programs, one requiring some level of host country language proficiency prior to entry, and the other with no such requirement. Contrary to expectations, the two groups did not differ in degree of contact with host country nationals, in their study abroad outcomes for affect and cognition, or in participants' ability to fit into the host culture.

**Previous foreign experience.** In line with the Georgetown Consortium Project, though basing themselves on students' self-reported perceptions, Farrell and Suvedi (2003) found no differences between students who had traveled outside the US and Canada before going to Nepal, and those who had not. Pedersen (2010) found that *not* having previous travel experience was significantly associated with increases in IDI scores pre- to post-test (p. 76). McKeown (2009) too found that "meaningful international experience" (p. 27) prior to study abroad did have an impact, and it was students *without* previous foreign experience who had the greatest intellectual development gains as a result of study abroad.

**Study Abroad Program Characteristics**

Mezirow's transformative learning theory and plain common sense suggest that the point of study abroad is to put students into an environment different from the one they normally experience, in the expectation they will learn things they otherwise would not. But authors differ markedly over which characteristics of study abroad programs are most apt to produce such learning. Almost 60 years ago, faced with evidence that study abroad either was not producing much change in participating students, or actually narrowing their perspectives on the world, Churchill (1958, p. 454) argued that colleges

"must carefully plan the conditions under which their students will feel the impact of the foreign milieu," and specified four key characteristics of an optimal study abroad experience: language learning; "living with the people"; participating in daily life as a student or worker; having the chance to report on experiences and exchange impressions with others. Other early efforts to examine connections between program characteristics and outcomes of study abroad included Smith's 1971 dissertation, explicitly focused on the connection of program characteristics to changes in students' attitudes, values, or interest, using a sample of students from Kalamazoo College. Factors of particular impact were breadth of exposure to non-Americans, presence of an American subculture, overall course differences, program satisfaction, helpfulness of hosts, and relevance of courses to students' majors, a quite diverse group of variables (Weaver, 1989).

Indeed, researchers not infrequently have assembled fairly miscellaneous groups of program characteristics variables, defined without a clear theoretical framework, and tried to relate them in some way to outcomes that also were unclearly defined.. Researchers sometimes have conflated program characteristics with *students' perceptions* of their experiences. Also, a significant part of the early research on study abroad outcomes treated students' *perceptions* of their study abroad experiences as an *independent* variable, while perceptions of something like a homestay really could be considered a *dependent* variable.

The study by Carlson, Burn, Useem, and Yachimowicz (1990) reflects these sorts of problems. The authors looked at six variables related to the sojourn in their research on study abroad impacts: where the student lived while abroad; the percentage of time spent respectively with other Americans, host country nationals, and third country

nationals; “level of integration into the host university”; “level of ‘worthwhileness” to study abroad” (p. 77). The ambiguous lines between independent and dependent variables ensured some significant, if potentially misleading, correlations.

The Georgetown Consortium Project (Vande Berg, Connor-Linton, & Paine, 2009), on the other hand, adopted rigorous definitions of variables, and found that a number of program characteristics were associated with intercultural development score change in study abroad. Program duration of 13-18 weeks provided the greatest gains. Content courses in the target language, target language study, and group mentoring also promoted gains. Contact with members of the host culture, including home stay families, was beneficial, while being in classes exclusively with host nation students was not. The impact of housing choices was significant, though home stays were not the only option that promoted intercultural development.

**Program type and degree of immersion.** The relationship between immersion in the host culture and the impact of study abroad is of long-standing interest. In 1979, for example, Abrams argued that involvement in another culture tended to maximize “enduring attitudinal and behavioral outcomes” (cited in Weaver, 1989). Pyle’s 1981 study of the personal development of 25 students who spent a month working in a mountain village in Jamaica found significant impacts of such cross-cultural service learning on student autonomy, maturity, and overall development (Weaver, 1989). In his 1983 dissertation, employing the Omnibus Personality Inventory and interviews with students from three Mennonite colleges, Kauffmann also found that service learning was an important contributor to personality change, as were homestays and the overall experience of being in a different culture.

In 2003 Engle and Engle, based on their experience as study abroad practitioners, proposed a typology of program types based on seven characteristics: length of sojourn; target language competence upon entry; language used in course work; "context of academic work"; type of housing; guided cultural interaction and experiential learning; guided reflection (p. 8). They identified five program levels: study tour, short-term study, cross-cultural contact, encounter, and immersion.

Norris and Gillespie (2009) drew on a partially similar typology of program types in comparing the impact on students' subsequent careers of "facilitated direct enrollment" (i.e. full immersion) programs and "hybrid" programs. Students who studied for a full year, selected programs taught entirely in a foreign language, enrolled in courses in host country universities, undertook internships, and lived with host families were more likely than others to pursue international careers.

**Intentional intercultural pedagogy.** For all the emphasis on immersion's benefits, Vande Berg, Connor-Linton, and Paige (2009) argue strongly that students "do not learn because of simple exposure [to foreign cultures] but because of the ways they respond to that exposure" (p. 24). A Taiwanese study (Chang, Yuan, & Chuang, 2013), admittedly focusing on expatriate workers, confirms the view that going abroad is not enough to promote cross-cultural adaptability (as measured by the Kelley and Meyers Cross-Cultural Adaptability Inventory). How and to what degree people engage with the host society is decisive. Decades ago, Morgan (1972, 1975) already underlined the very small role of academic activity as an agent of cross-cultural change, and, anticipating more recent trends among study abroad professionals, argued for intentional "cultural therapy" to help participating students gain in cross-cultural and interpersonal sensitivity.

In fact, the importance of what can be termed "intentional intercultural pedagogy" has become a major theme in study abroad research, which increasingly is grounded in the conviction that the traditional full immersion model, in which students essentially become regular students in a foreign university for a year, offers no guarantee of intercultural learning or development (Vande Berg, 2007). Maximizing the intercultural benefits of study abroad requires, from this perspective, the active intervention of professionals in programs that are intentionally structured to promote intercultural development. The importance of intentional intercultural pedagogy is, for example, the unifying theme of two relatively recent collective works: *Student Learning Abroad: What Our Students Are Learning, What They're Not, and What We Can Do About It*, edited by Paige, Vande Berg, and Lou (2012) and *Integrating Study Abroad into the Curriculum* (Brewer & Cunningham, 2009b).

Pedersen (2010) also makes a strong case for intentional intercultural pedagogy, based on pre- to post-test changes in Intercultural Development Inventory scores, though her sample is limited. A qualitative study based on post-study abroad reflection papers by 18 U.S. undergraduates (Root & Ngampornchai, 2013, p. 513) confirms that mere immersion into a host culture "may not increase intercultural competence." The authors recommend that international education professionals draw on the concepts from the intercultural communication literature to promote more intentional intercultural training for participants in study abroad.

One may conceptualize such interventions in various ways. A recent study (Covert, 2013) stresses how some students in a program in Chile, for example, consciously decided to adapt to the surrounding culture, and argues that study abroad

programs should seek to promote the self-efficacy of participants. Brewer and Cunningham (2009a), in fact, ground their approach in Mezirow's theory of transformative learning, but also in the concept of self-authorship, as developed Kegan, Baxter Magolda, and others. Drawing on the work of intercultural relations scholars, they also stress the importance of giving students an "intercultural toolkit," with distinct "compartments" for knowledge, attitudes, and skills.

The aforementioned *Maximizing Study Abroad: An Instructional Guide to Strategies for Language and Culture Learning and Use (*Kappler Mikk, Cohen, & Paige, 2009), is probably the state of the art practical manual for preparing students to study abroad, whether through teaching, advising, coordinating or directing a program, or serving as mentors and facilitators for study abroad programs. Drawing on wide-ranging theoretical sources and on empirical research, and including a significant focus on cognitive issues, the authors advance a number of main concepts, including

- What teachers and study abroad professionals do, or don't do, has a deep impact on what and how much students learn in study abroad.
- Cultural learning can be defined, broken down into components, and facilitated through intentional pedagogy.
- Learning *both* the language and the culture of the host country will help students maximize their study abroad experience
- There are three fundamental phases: before students go abroad, the period of their foreign sojourn, and re-entry.
- It is important to think of learning as cyclical, connecting concrete experience, reflective observation, abstract conceptualization, and active experimentation.

- It is essential to draw lessons from learning experiences via debriefings at various levels of curriculum – individual courses, programs, and above.

This approach seems to address the problem Laubscher (1994) identified: his study abroad participants increased their empirical knowledge of host cultures via participant observation, personal interaction with the host society, and travel, but then had difficulty drawing lessons based on that knowledge.

**Duration.** The significance of program duration in determining study abroad outcomes is a controversial issue. Based on experience as director of the Millersville Year in Marburg in the 1960s, Bicknese stressed that the greatest benefits of foreign study came after the first five months abroad, coupled with gradual integration into the host society and a flexible approach to the "target language only" rule (Weaver, 1989).

Quite a number of more recent studies address the program duration issue. In a 2004 analysis of their own program, for example, Engle and Engle find IDI gains significantly stronger for students in one-year, as opposed to one-semester, programs. The work of Medina-López-Portillo (2004), Dwyer (2004), and Behrnd and Porzelt (2012) also confirms the importance of program duration. Based on an ad hoc questionnaire employing Gertsen's 1990 model of intercultural competence and the 2008 Critical Incident Questionnaire of Pena and Sebald, for example, Behrnd and Porzelt find increases in intercultural competence for students who study abroad for at least half a year. Kehl and Morris (2007-2008) find a statistically significant positive difference in "global mindedness" between short-term and full semester study abroad students.

Rexeisen et al. (2008), on the other hand, identify a significant near-term impact of a semester-long program, and their previous research had indicated a positive impact

for a month-long, non-language-based study abroad program (Anderson, Lawton, Rexeisen, & Hubbard, 2006). Other literature also supports the benefits of short-term programs. Using self-assessments by Michigan State students of study abroad's impact on their personal and intercultural growth, language learning, and academic and career development, Ingraham and Peterson (2004) note a direct relationship between program duration and positive outcomes, but also underline how "short-term programs [provided] notable value" (p.90). The University of Delaware survey of "global awareness" among short-term study abroad participants also indicates "that short-term programs, even as short as one month, are worthwhile educational endeavors that have significant self-perceived impacts on students' intellectual and personal lives" (Chieffo & Griffiths, 2004, p. 174). A more recent examination of short-term study abroad's impact on "global awareness" largely confirms those conclusions (Kurt, Olitsky, & Geis, 2013), as do Black and Duhon (2006).

Still, Woolf (2007) argues for remaining skeptical about the benefits of short-term programs, contending that they may serve institutional interests more than they serve student interests. And while Ogden (2010) points out that empirical studies do not uniformly suggest longer programs automatically signify greater intercultural learning, his own study of short-term programs suggests that length of stay may be important.

**Foreign language use.** Engle and Engle (2004), Norris and Gillespie (2009), and the Georgetown Consortium Project (Vande Berg, Connor-Linton, & Paige, 2009) all point to associations between foreign language use and positive student outcomes in study abroad programs, as does a more recent qualitative study of Australian undergraduates who studied in a wide variety of foreign locations (Forsey, Broomhall, &

Davis, 2012). Students who went to countries where English was not the primary language were more likely to report improvement in foreign language skills.

This meshes with a long-standing view in the literature. Leonard in 1959 identified contradictory perspectives on the contribution of short-term travel to language learning, but also found that students attending universities that employed a foreign language improved their knowledge of that language. Pelowski's 1979 take on program characteristics relevant to cross-cultural education stressed the value of built-in independent study projects, especially those requiring close contact with the host society. Students who went to English-speaking study abroad centers did not benefit as much as those who went to foreign-language-speaking centers (Weaver, 1989).

**Housing.** Attention to the impact of homestays was evident as early as McGuigan's 1958 report (Weaver, 1989). Pedersen (2010), however, in a quantitative study employing the Intercultural Development Inventory and analysis of variance for group comparisons, found that homestays did *not* promote intercultural development, while Vande Berg, Connor-Linton, and Paige (2009) found that housing choices did have a significant impact on intercultural development in study abroad, though homestays did not automatically have benefits. Forsey, Broomhall, & Davis (2012) confirmed the importance of interaction with people from the host country and identified the nature of student housing as a key factor in determining the degree of interaction.

**Cultural distance.** It is rare to find empirical studies that address the differential impacts of study abroad locations on students. Douglas and Jones-Rikkers (2001), however, in a study of world-mindedness among U.S. undergraduates who studied abroad, "found partial support for the . . . hypothesis [that] the greater the cultural

difference between a student's point of origin and host site, the greater the increase in worldmindedness" (p. 63). They compared students who had studied in England, Germany, China, and Costa Rica to those who had remained in the US. Though the authors used an instrument dating back to 1957, Sampson and Smith's Scale to Measure World-Minded Attitudes, their conclusion was still of considerable interest. A somewhat contrasting view comes from Woolf (2007), who calls into question what he sees as an emerging "new orthodoxy" about the need to expand study abroad programs into nontraditional locations. Another suggestion regarding the impact of specific location on study abroad students comes from Dwyer (2004), who suggests that *host city size* could be relevant, and worth studying.

**Going too far?** A final caveat on program characteristics is in order. The case for intentional intercultural pedagogy (discussed in detail above) seems quite strong. However, expert intervention to promote and facilitate students' acquisition of intercultural competence is *not* the same as telling students what to think. Tian and Lowe (2014) hearken back to the Cold War-era focus on "attitude change" among study abroad participants, although describing their analysis in terms of shifts in cultural identity. But some scholars seem interested in indoctrination. The title of the article by Wynveen, Kyle, and Tarrant (2012) — "Study Abroad Experiences and Global Citizenship: Fostering Proenvironmental Behavior"— could be read as a statement of goals. The objective of study abroad, in the authors' view, is to promote global citizenship, and their theoretical framework "suggests that global citizenship can be fostered in students via modification of beliefs about environmental conditions, which in turn influence proenvironmental behaviors" (p. 336). The American students participated in four-week

programs in Australia and New Zealand that specifically "sought to modify values, promote proenvironmental behaviors, and change how students view[ed] themselves" (p. 339). It is not surprising that, in a pre- and post-test design using instruments designed to measure *pro-environmental* values and behaviors, the authors found the impact of study abroad quite positive, and also found that "shifts [toward pro-environmental attitudes and behaviors] can occur in students who participate in short-term programs" (p. 347).

Tarrant co-authored a similar study with Rubin and Stoner (2013), using pro-environmental views as an actual measure of global citizenship. Students who had devoted their summer to courses with an explicit focus on environmental sustainability scored higher on "environmental citizenship" than those who had taken courses on subjects like art, history, or literature. Pre-/post-test changes were greatest for those who studied sustainability abroad. Here too, the authors underline that even a short-term program of four weeks is sufficient to produce significant gains in global citizenship.

With a less visibly ideological tenor, Braskamp, Braskamp, and Merrill (2009) confirm that intentional pedagogy can influence what they term the "global learning and development" of students who study abroad. However, they find little differential impact of programs, using the Global Perspective Inventory (GPI) with students in ten different study abroad centers, other than gains on the GPI Social Responsibility scale for those at a center in Mexico that strongly emphasizes social and humanitarian goals.

Although their approach also is not overtly ideological, Paige, Fry, Stallman, Josić, and Jon (2009) assess the long-term impact of study abroad on global engagement, defined in terms of five dimensions: civil engagement, knowledge production, philanthropy, social entrepreneurship, and voluntary simplicity. One might perceive

these dimensions as emerging from specific value orientations of the researchers. In any case, they find study abroad to have an impact on all five dimensions, and on subsequent choices regarding schooling and career. Murphy, Sahakyan, Yong-Yi, and Magnan (2014) provide partial confirmation.

## Methodological Choices in Study Abroad Outcomes Research

While good part of the research reviewed here already employs quantitative approaches, a case can be made for more rigorous statistical analysis. Norris and Dwyer (2005), for example, come to interesting conclusions on the impact of different types of study abroad programs. Yet they report differences that are statistically significant at the .05 level, as well as a series of correlations, without specifying what statistical methods they employed.

Among the prevailing statistical techniques one finds both independent-samples and repeated-measures *t*-tests. The Georgetown Consortium Project (Vande Berg, Connor-Linton, & Paige, 2009), for example, used *t*-test comparisons of mean intercultural sensitivity scores for study abroad participants and a control group, and pre- to post-test comparisons for study abroad participants. Unfortunately, though, the choice of methodology did not allow for assessment of potentially important interactions among factors, or evaluation of the *relative* importance of said factors. Paige, Cohen, and Shively (2004) earlier had used repeated-measures *t*-tests to examine the impact of interventions on the intercultural development (measured by IDI scores) of study abroad participants, finding significant gains in intercultural development scores, pre- to post-test.

Pedersen (2010) employed the more sophisticated analysis of variance (ANOVA) technique to assess the impact of intentional intercultural pedagogy on students' cultural sensitivity. Using two-way analysis of variance (ANOVA), she found significant interaction between the use of such intentional pedagogy and students' pre- and post-test intercultural development scores. She then introduced a third factor, previous travel experience, and the three-way ANOVA found significance for all factors, including the three-way interaction. Pedersen limited herself to concluding that "previous travel experience and the presence of intercultural pedagogy had an impact" on whether students' IDI scores increased pre- to post-test (p. 76). Tarrant, Rubin, and Stoner (2013) used three-way repeated measures analysis of variance to assess the interaction of study abroad and coursework on sustainability, with changes pre- to post-test in pro-environmental views as the within-subjects factor. As discussed below, analysis of variance is also the core statistical analysis tool employed in this dissertation, along with *t*-tests, $\chi^2$ analysis, and correlations.

Using bivariate correlational analysis, Endicott, Bock, and Narvaez (2003) sought to connect intercultural development, as measured by the IDI, with moral judgment (measured using the Defining Issues Test), and multicultural experience (using a questionnaire devised by two of the authors). They found only a weak correlation between intercultural sensitivity and moral judgment, and a moderate correlation between intercultural sensitivity and multicultural experience. Behrnd and Porzelt (2012) employed correlational designs, plus analysis of variance and repeated-measures *t*-tests, to identify significant interactions between the impact of study abroad and program duration.

Regression analysis is a tool one can use to assess the relative weight of diverse variables in determining the outcomes of study abroad. One should proceed with care, however. Economists Messer and Wolter (2007) applied regression analysis to data from full census surveys of Swiss university graduates, in order to assess the subsequent career benefits of study abroad. They found a positive association between career success metrics — starting salaries or postgraduate study — and having studied abroad. Further statistical analysis, however, indicated no causal relationship. Those who studied abroad, probably due to more privileged family backgrounds, were likely to "do better" in life in any case. Nichols (2011) employed multiple regression in her secondary analysis of the data from the Georgetown Consortium Project, finding that, among the large number of independent variables employed in the study, female gender was the only significant predictor of *positive* change in IDI scores, pre- to post-test.

Other recent applications of regression techniques include a study of factors promoting acquisition of cross-cultural adaptability (Chang, Yuan, & Chang, 2013), which employs hierarchical linear regression and analysis of covariance, but is focused on likely Taiwanese expatriate workers, rather than students. Another study (Yu & Shen, 2012) highlights the importance of host country language proficiency and competence for cross-cultural adaptation of Chinese degree-seeking students in Australia, also employing hierarchical linear regression and analysis of covariance.

Perhaps the most statistically sophisticated study directly relevant to this dissertation is that by Salisbury, An, and Pascarella (2013), who employ regression to assess study abroad's impact on intercultural competence. They also make the important point that research on development of intercultural confidence in study abroad so far had

failed to employ statistical techniques needed to compensate for potential effects of non-random sampling. Their data do not allow attention, however, to the differential impacts of program characteristics on study abroad outcomes, unlike the analysis reported here.

Of course, it is not correct just to select a sophisticated statistical methodology and plug in data. Carlson et al., in their 1990 study relating study abroad impacts to a series of sojourner and sojourn factors, relied on ambiguously defined variables. Definition of variables is an issue as well in Hadis's 2005 study of academic focusing gains as a result of study abroad. He uses regression analysis with three independent variables — belief in the intrinsic value of education, independence and global-mindedness — finding all three statistically significant. But the variables are broadly conceived, and the reliance on students' self-assessments raises questions. Jang's 2009 dissertation posits a relationship between internationalization and the quality of higher education (with quality as the *dependent* variable) that might well be reversed. In sum, a powerful statistical methodology is no replacement for a well-conceived research design, grounded in theory, but also in logic.

## Conclusions

Though it is improving, the current literature on students' intercultural development in study abroad still offers an inconsistent and contradictory portrait. The foregoing literature review indicates a paucity of published research that addresses a wide range of unambiguously defined personal and program variables, providing new data collected using a state of the art instrument for assessing intercultural development (such as the IDI), and employing rigorous statistical analysis capable of identifying interactions between study abroad and other variables in shaping student outcomes.

The literature does support paying attention to both the personal characteristics that students take with them into study abroad and the program characteristics that then may shape the experience (Craig, 1983, May; Nichols, 2011). The literature also points out a large number of specific personal and program characteristics that may be related to intercultural development in study abroad. Generally speaking, the definitions of these factors have become clearer and more consistent in the post-Cold War period, and study abroad research broadly speaking has become more rigorous, drawing on new, validated research instruments, the growing scholarship regarding teaching and learning, and theoretical and developmental models such as Mezirow's transformative learning theory and Bennett's Developmental Model of Intercultural Sensitivity.

Table 2-1 below lists under two main headings — personal and program — the *characteristics* identified in the literature as potentially relevant to intercultural development in study abroad. A certain level of abstraction or generalization is desirable for devising practically useful independent variables appropriate to the type of quantitative analysis reported here. Hence the use, for example, of "housing" as a characteristic, as opposed to a more limiting term like "homestay." The objective is not to rule out a priori any options, such as host university dormitories, that may not yet have attracted much attention from researchers, but still might have intercultural development benefits.

Not all characteristics listed in Table 2-1 are included as variables in the research reported here. The table is intended to be inclusive, but the literature also suggests that some variables are more significant than others. At the same time, the table does not include some potentially significant factors, e.g. the cultural identity of students. (See the

definitions of variables in Chapter 3.) In addition, defining and assigning values to variables such as "individual personality" or "attitudes toward home and host countries" would in themselves constitute significant research projects. Even then, one might not come up with clear-cut, meaningful values that could be employed validly in statistical analysis.

Table 2-1

*Factors Potentially Shaping Study Abroad Outcomes, According to the Literature*

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**Personal Characteristics**

- Gender
- Race/ethnicity
- Family socio-economic status
- Type of higher education institution normally attended
- Previous international experience
- Foreign language knowledge
- Academic major
- Level of academic accomplishment
- Intercultural development level
- Individual personality
- Attitudes toward home and host countries

**Program Characteristics**

- Duration of study abroad
- Cultural distance of host country from the United States
- Degree and nature of contact with host nationals
- Housing
- Study/use of host country language
- Preparatory experiences
- Intentional intercultural pedagogy, mentoring, and reflection while abroad
- Immersion in the host country educational system
- Service learning, workshops, independent research
- Travel

# CHAPTER 3: METHODS

This research assesses differences in intercultural development between undergraduate students who study abroad for a semester and those who remain on their home campus for a semester. In other words, does study abroad influence students' ways of understanding and addressing cultural difference? The research also examines to what degree personal characteristics and the background that students bring with them into study abroad, as well as the characteristics of specific study abroad programs, are associated with change in students' intercultural development. Participants were students at Large Urban Private University (LUPU), which according to the Institute of International Education's *Open Doors 2015* report was among the2doctorate-granting institutions in the U.S. for number of students receiving credit for study abroad during the 2013-2014 academic year.[9] The expectation was that study abroad as such, and at least some personal and program characteristics, would prove to be significantly associated with increasingly intercultural mindsets among students studying abroad.

The primary dependent variable for this longitudinal quantitative study was pre-/post-test change in experimental (study broad) and control group scores on the Intercultural Development Inventory (IDI), an extensively validated and widely used instrument. Demographic and biographical data about the participants, plus questionnaires for experimental group members regarding the study abroad programs in which they participated, provided values for the independent variables. Group comparisons employing analysis of variance (ANOVA), with attention to both interaction

[9] See http://www.iie.org/Research-and-Publications/Open-Doors/Data/US-Study-Abroad/Leading-Institutions-by-Institutional-Type/2013-14.

and main effects, were the primary statistical technique employed to assess the significance of study abroad as such, and of participants' demographic and background characteristics. Correlation analysis and ANOVA were employed to assess connections between program characteristics and study abroad outcomes.

The research reported here was *quasi-experimental*, given that the researcher could not assign the participants randomly to the experimental or control groups, or to specific study abroad programs with given characteristics. Participants in the study were self-selecting, including self-selection into specific programs for those studying abroad . Naturally this impacts on the generalizability of the study's finding, although a true experimental approach, assuming it were ever even possible, would have the disadvantage of not corresponding at all to students' actual experiences.

In its comparison of changes in intercultural development level between groups studying abroad and remaining on the home campus, this can be considered a *treatment versus control* study. Examination of the impact of study abroad program characteristics is obviously restricted to the treatment group. Although the study was designed to assess the impact of various personal and program factors on an important hypothesized outcome of study abroad, it seemed excessive to expect to generate a model that reliably would predict specific intercultural development score changes for any given individual. Study abroad practitioners, notably those responsible for advising students, may find the outcomes of the proposed study to be of some use, though primarily as general insights.

This research is first and foremost *explanatory*, identifying possible causes of change in the intercultural development levels of students. It is also primarily *confirmatory*, assessing a series of hypotheses grounded in the literature, though it also

has an *exploratory* dimension. It explores, for example, the possible influence on study abroad outcomes of cultural identity variables that so far have not figured in quantitative research on study abroad outcomes.

## Research Questions and Hypotheses

The research addressed three main questions:

1. Is a semester of study abroad associated with more significant pre- to post-test change in scores on the Intercultural Development Inventory (IDI) than a semester of study at one's home institution?
2. Are a series of personal characteristics and background experiences of participating students[10] significantly associated with different IDI outcomes for students studying abroad and at their home institution?
3. For those studying abroad, are a series of study abroad program characteristics[11] significantly associated with pre- to post-test differences in intercultural development scores?

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[10] The personal and demographic characteristics examined here are: gender; academic major; membership in an ethnic minority; ability to interact effectively in a language other than English; one year of college-level foreign language study; identification as a member of more than one national culture; having a grandparent born and raised outside the U.S.; time spent abroad before participating in the research.

[11] The program characteristics examined here are: cultural distance of the host country from the US; intentional intercultural pedagogy; use of a non-English language in the classroom; immersion in the host country educational system; housing with host country nationals.

The relative research hypotheses were that

1. Students who studied abroad would present significant pre- to post-test increases in intercultural mindset and reduced cultural disengagement, as measured by the IDI, relative to students who remained on the home campus.
2. One or more demographic characteristics and prior life experiences of students would be significantly associated with differences between the study abroad and control groups in pre- to post-test change in IDI scores.
3. One or more study abroad program characteristics would be significantly associated with pre- to post-test change in intercultural development scores for those participants who in fact studied abroad.

## Participants

### Population

The target population was that of undergraduates at U.S. colleges and universities who study abroad for one semester. The accessible population consisted of Large Urban Private University (LUPU) undergraduates who studied abroad for one semester during the 2014-2105 academic year. LUPU undergraduates studying at the home campus during Fall 2014 provided the control group. LUPU is similar in scope, location, and student demographics to other relatively large private universities that send significant numbers of students abroad every year, and it figures on the Institute of International Education (IIE)'s 2013-2014 list of the top 40 doctorate-granting universities by study abroad total.[12]

Study abroad participants are not evenly distributed among U.S. higher education

[12] See note 9.

institutions. Students from selective private universities and flagship public universities constitute a larger share in study abroad than they do of U.S. undergraduates as a whole. While a sample of LUPU students is unlikely to represent U.S. undergraduates as a whole (particularly factoring in the large numbers of students at community colleges), a sample of LUPU undergraduates who participate in study abroad should be reasonably similar to the population of U.S. bachelor's degree seekers who study abroad.

The 2011-2012 IIE data, for example, portrayed a study abroad population from U.S. institutions that was overwhelmingly white (76.4%) and female (64.8%). Although these data included also students working toward associate and graduate degrees, third- and fourth-year undergraduates predominated (36.0% and 24.4% of the total respectively), along with a significant presence of second-year undergraduates (13.0%).[13] LUPU figures for the same year showed a gender balance very close to IIE figures and a percentage of White study abroad students slightly lower than the overall figure.[14] The LUPU study abroad population for 2011-12, on the other hand, included close to 50% social science majors and almost 25% for business and management, while the IIE overall population included only 22.4% social science majors and a larger share of students in the STEM fields than was the case for LUPU (21.1% as compared to less than

[13] See the IIE student profile information retrievable from http://www.iie.org/Research-and-Publications/Open-Doors/Data/US-Study-Abroad/Student-Profile/2003-14.

[14] Specific figures for LUPU are not reported here, to avoid clearly identifying the institution.

10.0%). [15]

It is important to note that the experimental group ($n$ = 108) combined two sub-groups: students who studied abroad during the Fall 2014 semester, and others who studied abroad in Spring 2015, numbering 66 and 42 respectively. Recruitment of the Spring 2015 sub-group reflected the objective of raising the statistical power of the analysis and, as discussed below, recruitment procedures for the two sub-groups were slightly different. Still, while the two sub-groups were not identical, the differences between them were not so large as to suggest that combining them into a single experimental group would be inappropriate.

The following table allows for a demographic comparison of the Fall 2014 and Spring 2015 sub-groups within the experimental group. The members of the Fall 2014 sub-group were significantly more likely to have the equivalent of a least one year of college-level language study before beginning study abroad: $\chi^2$ (1, $n$ = 108) = 9.975, $p$ = .002, Cramer's $V$ = .30 (a medium effect size).

The distributions of study abroad destinations by region also presented a statistically significant difference (at the $\alpha$ = .10 level) with $\chi^2$ (8, $n$ = 108) = 15.152, $p$ = .056, Cramer's $V$ = .13. (Based on Cohen's benchmarks for correlations, a Cramer's $V$ of .10 can be considered small, with .30 as medium, and .50 as large.) The split between Anglophone country and non-Anglophone country destinations, however, was not significantly different in the two sub-groups. In any case, it seems uncertain that choice

[15] See http://www.iie.org/Research-and-Publications/Open-Doors/Data/US-Study-Abroad/Fields-of-Study/2000-13.

of study abroad destinations could impact significantly on the appropriateness of combining the two sub-groups into a single experimental group.

Table 3-1
*Demographic Comparison of Study Abroad Sub-Groups*

| | Fall 2014 | | Spring 2015 | | | |
|---|---|---|---|---|---|---|
| Characteristic | Count | % | Count | % | *p* | *V* |
| Gender | | | | | .463 | .07 |
| Male | 20 | 30.3 | 10 | 23.81 | | |
| Female | 46 | 69.7 | 32 | 76.19 | | |
| Standing | | | | | .111 | .14 |
| 2nd Year | 0 | 0 | 2 | 4.8 | | |
| 3rd Year | 61 | 92.4 | 39 | 92.8 | | |
| 4th Year | 5 | 7.6 | 1 | 2.4 | | |
| Major | | | | | .399 | .08 |
| HumSocLang | 40 | 60.6 | 22 | 52.4 | | |
| Other | 26 | 39.4 | 20 | 47.6 | | |
| U.S. Citizen | | | | | .317 | .10 |
| Yes | 65 | 98.5 | 40 | 95.2 | | |
| No | 1 | 1.5 | 2 | 4.8 | | |
| Ethn. Minority | | | | | .268 | .11 |
| Yes | 16 | 24.2 | 14 | 34.1 | | |
| No | 50 | 75.8 | 27 | 65.1 | | |
| Multicultural | | | | | .358 | .09 |
| Yes | 24 | 36.4 | 19 | 45.2 | | |
| No | 42 | 63.6 | 23 | 54.8 | | |
| For. Grandpar. | | | | | .555 | .06 |
| Yes | 23 | 34.8 | 17 | 40.5 | | |
| No | 42 | 65.2 | 25 | 59.5 | | |

| Characteristic | Fall 2014 | | Spring 2015 | | | |
|---|---|---|---|---|---|---|
| | Count | % | Count | % | *p* | *V* |
| Life Region | | | | | .561 | .06 |
| N. America | 63 | 95.5 | 41 | 97.6 | | |
| Other | 3 | 4.5 | 1 | 2.4 | | |
| Time Abroad | | | | | .820 | .02 |
| ≥ 3 months | 16 | 24.2 | 11 | 26.2 | | |
| < 3 months | 50 | 75.8 | 31 | 73.8 | | |
| Lang. Interact. | | | | | ,448 | ,07 |
| Yes | 41 | 62.1 | 23 | 54.8 | | |
| No | 25 | 37.9 | 19 | 45.2 | | |
| Lang. Study | | | | | .002*** | .30 |
| Yes | 59 | 89.4 | 27 | 64.3 | | |
| No | 7 | 10.6 | 15 | 35.7 | | |
| SA Region | | | | | .056* | .13 |
| Europe Anglophone | 12 | 18.2 | 15 | 35.7 | | |
| Europe Non-Anglo. | 23 | 34.8 | 18 | 43.9 | | |
| Africa | 9 | 13.6 | 0 | 0 | | |
| Asia (E) | 1 | 1.5 | 2 | 4.9 | | |
| Asia (S) | 1 | 1.5 | 0 | 0 | | |
| Asia (SE) | 2 | 3.0 | 0 | 0 | | |
| Canada | 0 | 0 | 0 | 0 | | |
| Lat. America | 7 | 10.6 | 2 | 4.9 | | |
| MENA | 5 | 7.6 | 4 | 9.8 | | |
| Oceania | 6 | 9.1 | 1 | 2.4 | | |
| Anglophone Destination | | | | | .732 | .03 |
| Yes | 23 | 34.8 | 16 | 36.6 | | |
| No | 43 | 65.2 | 26 | 63.4 | | |

Notes: * $\chi^2$ test indicates statistical significance at $\alpha = .10$; ** indicates significance at $\alpha = .05$; *** indicates statistical significance at $\alpha = .01$. For details of comparison factors, see the sections on "personal characteristics variables" and "program characteristics variables" below. "Life Region" refers to the world region in which participants reported having spent the majority of their lives.

Looking instead at IDI Developmental Orientation scores, the primary dependent variable in this study, two things leap out (Table 3-2 below). The Fall 2014 sub-group had higher scores, indicating a more intercultural mindset on average, but there was *no* significant difference between the two sub-groups in pre- to post-test *change* in scores (DeltaDO).

Table 3-2
*IDI Developmental Orientation Score Comparisons by Study Abroad Sub-Groups*

| | Fall 2014 | | | Spring 2015 | | | |
|---|---|---|---|---|---|---|---|
| Outcome | n | M | SD | n | M | SD | *p* |
| Pre-Test | 66 | 92.42 | 15.40 | 42 | 87.69 | 12.39 | .097* |
| Post-Test | 66 | 95.67 | 14.36 | 42 | 91.15 | 12.76 | .099* |
| DeltaDO | 66 | 3.25 | 11.33 | 42 | 3.46 | 11.79 | .925 |

*Note:* * *t*-test significant at α = .10 level; ** significant at α = .05;
*** significant at α = .01

Indeed, the sub-group mean differences, both pre- and post- test, are just barely statistically significant at the α = .10 level, with effect sizes, measured in Cohen's *d,* of .34 and .33 respectively (small-to-medium). The reasons for differences in IDI scores between the Fall and Spring study abroad participants are frankly beyond the scope of this study, although they may merit further examination. The almost exactly equal association between study abroad and increased IDI Developmental Orientation scores for the two sub-groups, on the other hand, strongly suggests that the sub-groups are comparable, and hence can be combined into a single experimental group.

Looking instead at the comparability of the experimental group ($n$ = 108) and the control group *(*$n$ = 65), the demographic differences are, perhaps not surprisingly, greater than those between the Fall 2014 and Spring 2015 study abroad sub-groups. Across a series of personal and background characteristics, the control group looks a bit more balanced in terms of gender composition, but distinctly more diverse in other respects. Based on $\chi^2$ analysis, the control group members were statistically significantly more likely than experimental group members to have an academic major outside the humanities, social sciences and foreign languages. The standing by year of control group members also was significantly more diversified. The proportion of non-U.S. citizens was significantly higher in the control group, as was the proportion of members declaring themselves as members of more than one national culture or having at least one grandparent born and raised outside the U.S. The proportion of control group members raised primarily outside of North America, though not very large, was greater than the proportion of experimental group members raised outside the U.S.

Based on the demographic differences, one might expect to find higher IDI Developmental Orientation scores for the control group, indicating a more intercultural mindset. Importantly, however, there was *no* statistically significant difference in pre-test Developmental Orientation scores. For the experimental group: $n$ = 108, $M$ = 90.58, $SD$ = 14.43. For the control group: $n$ = 65, $M$ = 90.24, $SD$ = 14.39. Independent-samples $t$-test comparison of the group means resulted in $t(171) = -.148$, $p = .893$, with effect size $d$ = .023 (negligible).

Table 3-3
*Demographic Comparison of Experimental and Control Groups*

| | Experimental | | Control | | | |
|---|---|---|---|---|---|---|
| Characteristic | Count | % | Count | % | *p* | *V* |
| Gender | | | | | .209 | .08 |
| Male | 30 | 27.8 | 24 | 36.9 | | |
| Female | 78 | 72.2 | 41 | 63.1 | | |
| Standing | | | | | .000*** | .55 |
| 1st Year | 0 | 0 | 2 | 3.1 | | |
| 2nd Year | 2 | 1.8 | 15 | 23.1 | | |
| 3rd Year | 100 | 92.6 | 28 | 43.1 | | |
| 4th Year | 6 | 5.6 | 19 | 29.2 | | |
| Grad | | | 1 | 1.5 | | |
| Major | | | | | .027** | .17 |
| HumSocLang | 62 | 57.4 | 26 | 40.0 | | |
| Other | 46 | 42.6 | 39 | 60.0 | | |
| US Citizen | | | | | .001*** | .25 |
| Yes | 105 | 97.2 | 54 | 83.1 | | |
| No | 3 | 2.8 | 11 | 16.9 | | |
| Minority | | | | | .105 | .12 |
| Yes | 30 | 27.8 | 26 | 40.0 | | |
| No | 77 | 71.3 | 39 | 60.0 | | |
| Multicultural | | | | | .029** | .17 |
| Yes | 43 | 39.8 | 37 | 56.9 | | |
| No | 65 | 60.2 | 28 | 43.1 | | |
| For. Grandpar. | | | | | .000*** | .29 |
| Yes | 41 | 38% | 44 | 68% | | |
| No | 67 | 62% | 21 | 32% | | |
| LifeRegion | | | | | .013** | .19 |
| N. America | 104 | 96.3 | 55 | 84.6 | | |
| Other | 4 | 3.7 | 9 | 13.8 | | |

| Characteristic | Experimental | | Control | | $p$ | $V$ |
|---|---|---|---|---|---|---|
| | Count | % | Count | % | | |
| Time Abroad | | | | | .696 | .03 |
| ≥ 3 months | 27 | 25.0 | 18 | 27.7 | | |
| < 3 months | 81 | 75.0 | 47 | 72.3 | | |
| Lang. Inter. | | | | | .366 | .07 |
| Yes | 64 | 59.3 | 43 | 66.2 | | |
| No | 44 | 40.7 | 22 | 33.8 | | |
| Lang. Stud. | | | | | .279 | .08 |
| Yes | 86 | 80% | 56 | 86% | | |
| No | 22 | 20% | 9 | 14% | | |

Note: * $\chi^2$ test indicates statistical significance of differences in proportions at $\alpha = .10$; ** indicates significance at $\alpha = .05$; *** indicates statistical significance at $\alpha = .01$.

This suggests, among other things, that inclusion of a more significant proportion of non-U.S. citizens in the control group did not significantly differentiate the two groups in terms of intercultural development levels. (Not surprisingly, non-U.S. citizenship was also statistically significantly correlated with having at least one grandparent born and raised outside the United States and with having lived primarily outside of North America,[16] other factors on which the experimental and control groups differed significantly.) Did U.S.-citizen and non-citizen members of the control group even have significantly different pre-test mean IDI Developmental Orientation scores? For the U.S. citizens in the control group, $n = 54$, $M = 89.55$, $SD = 14.38$. For the non-U.S. citizens, $n = 11$, $M = 93.64$, $SD = 14.63$. But the difference in means was *not* statistically

[16] The Pearson correlations were .650 (statistically significant at $\alpha = .01$) for having lived primarily outside the U.S., and .312 (significant at $\alpha = .05$) for having a grandparent born and raised outside the U.S.

significant. An independent samples *t*-test resulted in $t(63) = -.857$, $p = .394$, with $d = .28$ (small effect size).

Looking at pre- to post-test change in Developmental Orientation scores (DeltaDO), citizenship again was *not* a statistically significant factor. For U.S. citizens in the control group, $n = 54$, $M = -.93$, $SD = 12.37$. For the non-U.S. citizens, $n = 11$, $M = -3.25$, $SD = 14.87$. An independent-samples *t*-test resulted in $t(63) = .548$, $p = .586$, with $d = .17$ (small effect size).

It is worth noting that, in developing IDI v3, the version employed in this study, almost 4800 individuals from 11 distinct, cross-cultural samples, including 1850 high school students from Austria, Brazil, Costa Rica, Ecuador, Germany, Hong Kong, Italy, Japan, and the United States served as test subjects. This testing provided "strong support for the cross-cultural generalizability, validity and reliability of the IDI v3" (Hammer, 2011, 12). In other words, variation of scores according to national culture should not be an issue.

Differences in the distributions of class standing within the groups also were not associated with significant differences in IDI scores. A one-way analysis of variance (ANOVA) using control group data, with DeltaDO as the dependent variable and standing by year as the between-groups independent variable, did not find a statistically significant effect for standing: $F(4, 60) = 1.189$, $p = .325$. A similar analysis using experimental group data also found no statistically significant effect of class standing on DeltaDO: $F(2, 105) = .797$, $p = .454$. Similarly, *t*-tests indicated that in neither the experimental nor the control groups did academic major (humanities/social

sciences/foreign languages vs. other majors) have a statistically significant effect on mean DeltaDO.

Overall, then, differences in the demographic composition of the experimental and control groups, even when themselves statistically significant, appear not to have impacted on IDI scores. Consequently, it is appropriate to employ these groups in the comparative analyses reported here.

**Sample Size and Power Analysis**

Post hoc power analysis, based on $n = 108$ for the experimental group and $n = 65$ for the control group, indicates that, based on the size of the smaller group, power to detect the statistical significance of a medium-sized effect (Cohen's $d = .50$) employing two-way analysis of variance with two levels for each independent variable, is over .81. The broadly accepted standard for power is .80. If $n$ for both samples had been 108 (like the experimental group) the power would have risen to approximately .95 (Cohen, 1988, 312). In correlation analysis, employed to identify associations between study abroad program factors and pre- to post-test IDI score change for experimental group members, a Pearson coefficient of $r = .30$ is at the beginning of the moderate range. A sample of $n = 100$ provides power of .87 for a two-tailed test with $\alpha = .05$ to identify an $r$ of .30 as statistically significant. With an experimental group of 108, the power would be almost .90, certainly acceptable by the usual standards of social science research.

Inappropriate use of post hoc power calculations in the interpretation of experimental results has come in for harsh criticism, especially with respect to interpreting statistically non-significant results (Hoenig & Heisey 2001; O'Keefe, 2007). Standard practice in group comparisons, for example, is to test the null hypothesis, i.e.

the proposition that the mean values for the groups are *not* significantly different, statistically speaking. And it is a common fallacy to interpret a failure to reject the null hypothesis as more reliable in a study with greater statistical power than in a study with lower statistical power (Colegrave & Ruxton, 2003).

There is, in fact, a proper place for post hoc power calculations in interpreting results. Low power can result in non-significant test statistics in cases where there are also large effect sizes that are "practically meaningful." Extremely large samples, on the other hand, can result in so much power that all test results come out as statistically significant, even with small effect sizes (Weiss, 2013).

In contrast to the long-standing focus in the quantitative social science literature on finding statistically significant results, one notes a growing trend toward reporting of effect sizes and practical significance (Weiss, 2013). The editors of the journal *Basic and Applied Social Psychology* have gone so far as to declare the null hypothesis significance testing procedure invalid, and put an end to reporting *p*-, *t*-, and *F*-values in the journal. They opt instead for "strong descriptive statistics, including effect sizes" and "encourage the presentation of frequency or distributional data when this is feasible" (Trafimow & Marks, 2015, 1). They also ban reporting of confidence intervals, which others instead have supported as an alternative to reporting null hypothesis testing outcomes (Colgrave & Ruxton, 2003; Hoenig & Heisey, 2001).

The approach to reporting data in this dissertation steers a middle course. It includes measures of statistical significance, along with effect sizes (generally Cohen's *d*, as well as raw group differences). It also includes significant effect sizes that are not accompanied by findings of statistical significance. Regardless of the power of a given

test, findings of statistical significance are considered valid, with the caveat that findings of statistical non-significance may be attributable to insufficient power due to sample size.

## Measures

### Dependent Variables

The primary dependent variable (DeltaDO) is change between participants' pre- and post-test scores for Developmental Orientation (DO) on the Intercultural Development Inventory (IDI), an extensively validated tool for assessing how people understand and address cultural difference. The IDI is a copyrighted instrument, which can be administered exclusively under a license granted to a Qualified Administrator, and hence cannot be shared here. But it has been employed extensively for management and leadership purposes in the public and private sectors, and in research,[17]

One objective in choosing the IDI as the instrument for this study was precisely to engage with the other IDI-based research on study abroad reviewed in Chapter 2. (See the comparative discussion of research results in Chapter 5.) But the IDI also has the virtue, from the author's perspective, of focusing on *how individuals experience cultural difference* (Hammer, 2015) rather than their views on specific issues. In this sense it differs, for example, from the Cross-Cultural World-Mindedness Scale of Der-Karabetian

[17] See the December 2012 bibliography of studies on or employing the IDI at https://idiinventory.com/wp-content/themes/evolution/pdfs/IDI_Bibliography_2012.pdf.

and Metzer, which assesses world-mindedness based on support for concepts such as world government and global economic justice. In this research, identity is an independent variable, hence instruments used in assessing identity, such as the Bicultural Involvement Questionnaire, the Multigroup Ethnic Identity Measure, or the Multi-Index Ethnocultural Identity Scale would not provide an appropriate *dependent* variable (Paige & Stallman 2007). Paige and Stallman (2007, p. 146) argue that the Kelley and Meyers Cross-Cultural Adaptability Inventory, focused on an individual's ability to adapt to a culture different from their own, would best be used in education abroad settings "as a predeparture instrument, such as to determine the kind of orientation and training that is appropriate." Hammer (2015) holds that intercultural competence research based not on the IDI's developmental paradigm, but on the more traditional triad of cognitive, affective, and behavioral dimensions, has featured a proliferation of inconsistent and confusing definitions of personal characteristics in those three categories, e.g. variously defining "tolerance for ambiguity" as a cognition, an attitude, or a behavior.

The IDI v3 used in this study is a 50-question questionnaire, including also selected demographic questions, which identifies the respondent's overall position on the Intercultural Development Continuum (IDC). Based on, though not identical to, Bennett's Developmental Model of Intercultural Sensitivity (DMIS), the IDC posits five orientations toward cultural difference (Hammer, 2009; Hammer, 2012) that range from monocultural to intercultural mindsets. The distinctly monocultural mindsets are Denial and Polarization: Defense/Reversal. Denial is typical of people from dominant cultures who have little experience with those from different cultures. It can include stereotypical perceptions of cultural "others" and reflects disinterest in and avoidance of cultural

diversity. Polarization is marked by an "us vs. them" view, which can involve either an uncritical view of one's own culture and an overly critical view of other cultures (Defense), or else Reversal, in which criticism is directed at one's own culture, with an uncritical view of other cultures.

Between the monocultural and intercultural mindsets is Minimization, which focuses on cultural common ground and universal principles, but can cover up deeper cultural differences. The intercultural Acceptance mindset recognizes and appreciates cultural difference and commonality in one's own and other cultures, while Adaptation includes the ability to shift cultural perspective and change behavior in ways that are culturally appropriate and authentic.

Although Hammer (2009, 2012) sometimes equates intercultural development as measured by the IDI with intercultural competence, the term "competence" could be taken as implying an additional step, i.e. actually translating an orientation toward cultural difference into action. Taking that step may not be automatic, and probably can depend to some degree on context. Hence, consistent with the instrument's actual title, the IDI is defined narrowly here as a measure of intercultural development.

The first version of the IDI dates from 1998. A second version appeared five years later. The current version, termed IDI v3, dates from 2010. The IDI has been the object of several validation studies, and a December 2012 bibliography compiled by Hammer (see above) listed over 70 published research studies either analyzing or employing the IDI, many of them dealing with issues in education. The foundational data set consisted of detailed interviews with 40 culturally diverse individuals, whose statements about cultural commonalities and differences were evaluated for their

consistency with the stages foreseen in the Developmental Model of Intercultural Sensitivity (DMIS). This bottom-up approach to developing the instrument contrasted with the more standard practice by which researchers devised questionnaire items themselves, and was intended to help reduce the risk of cultural bias, possible in instruments devised by small and perhaps culturally homogeneous groups of researchers (Hammer, 2011).

Four members of the research team independently reviewed each interview transcript, to assess how consistently each interviewee expressed the orientations foreseen in the DMIS. Inter-rater reliability was high, between .66 and .86 (Cohen's *kappa*). Seven acknowledged cross-cultural experts reviewed proposed items for the IDI derived from the interviews, classifying each item in terms of consistency with a specific DMIS orientation. This allowed for a winnowing of proposed items, but "also demonstrated strong content validity support of the IDI" (Hammer, 2011, p. 3). IDI version 1 was a 60-question instrument that identified six factors: denial/defense, two forms of universalism, adaptation both behavioral and cognitive, plus a sixth factor not related to the DMIS scale.

In developing IDI v2, researchers assessed additional items with a new group of almost 600 culturally diverse respondents. A five-dimensional model emerged, including scales for denial/defense, reversal, minimization, acceptance/adaptation, and what was termed "encapsulated marginality." Cronbach's α for each of these five scales was .80 or higher. The developers tested construct validity by comparing IDI results to results on a world-mindedness scale and an intercultural anxiety measure, with all results consistent. Researchers also employed a social desirability scale, to assess whether those

responding to the IDI were adjusting their answers to imagined expectations, finding no evidence of such adjustment.

IDI v3 is in some sense a simplified version. It uses separate sub-scales for each of the orientations on the Intercultural Development Continuum, but combines them into the comprehensive Developmental Orientation (DO) score, plus a measure of Perceived Orientation (PO) that gauges how respondents perceive their own intercultural development level. The Developmental Orientation score is the one of primary relevance in this study, and has a Cronbach's α of .83, signifying high reliability. The DO score is continuous and standardized, on a scale from 55 to 145, with 100 as the mean and a standard deviation of 15.[18] The higher the score, the more intercultural the orientation.

The IDI also generates a Cultural Disengagement (CD) score, not used in calculating Developmental Orientation. It is on a 0 to 5 scale, and in this case the higher the score the *less* the participant is disengaged from their culture of origin. A score of 4 or higher indicates that one is *not* culturally disengaged. This study examines the association between study abroad and pre- to post-test change in Cultural Disengagement score (DeltaCD).

**Independent Variables**

Based on the literature, a series of personal characteristics and study abroad program characteristics appear to be associated with change in students' ways of understanding and addressing cultural difference during study abroad. (See Table 2-1.) This study assesses the possible association of such factors with pre- to post-test score

[18] Mitchell Hammer, *The Perceived Orientation and Development Orientation Scores of the IDI,* unpublished handout provided to IDI Qualified Administrators.

change for Developmental Orientation (DeltaDO) and Cultural Disengagement (Delta CD).

**Personal characteristics variables.** The following demographic and life experience factors, rendered as dichotomous categorical variables, figure in the study:

- Gender (Female or Male)
- Academic major (Humanities/Social Science/Foreign Language or Other)
- Membership in an ethnic minority (Yes or No)
- Ability to interact effectively in a language other than English (Yes or No)
- Equivalent of one year of foreign language study (Yes or No)
- Membership in more than one national culture (Yes or No)
- At least one grandparent born and raised outside the U.S. (Yes or No)
- Time spent abroad ($\leq$ 3 months or > 3 months)

The researcher assigned values for these independent variables based on study participants' self-reports and self-assessments in response to demographic and contexting questions on the Intercultural Development Inventory and additional questionnaires.

The decision to employ dichotomous independent variables, as opposed to categorical variables with 3 or more levels, reflected concerns about ensuring sufficient statistical power. All these variables are categorical rather than continuous, because even the time spent abroad data is based on multiple levels, rather than being a continuous value. It is primarily the dichotomization of *continuous* variables, not of categorical ones, that should be avoided (Weiss, 2013).

It is important that levels be clearly defined, and the definitions here are not based on complex concepts that risk lending themselves to vague assessments, even when some

degree of self-assessment is involved. Gender has two levels, male and female, with dummy variables of 0 and 1 respectively, assigned in light of indications in the literature that females tend to show more intercultural development benefits from study abroad than do males (Nichols, 2011). For academic major there was some reason to expect (Vande Berg, Connor-Linton, & Paige, 2009) that students majoring in humanities, social sciences, or foreign languages (dummy variable 1) would show greater intercultural development gains in study abroad than those in other majors (dummy variable 0).

A number of scholars (Farrell & Suvedi, 2003; McKeown, 2009; Pedersen, 2010) have examined the connection between significant previous international experience and student development in study abroad, coming to contradictory conclusions. A dummy variable of 0 was assigned to the absence of significant international experience, and a dummy variable of 1 to its presence, as gauged primarily by a standard biographical question included in the Intercultural Development Inventory regarding the amount of time respondents had spent outside the United States. Use of a three-month threshold was intended to rule out short-term tourism (even cumulative) as a significant international experience for purposes of the study.

Vande Berg, Connor-Linton, and Paige (2009) found an important correlation between prior foreign language study and intercultural development gains in study abroad. Since a case can be made that knowledge of a second language, whether acquired by formal study or via upbringing and related experiences, has cognitive

benefits and is associated with open attitudes toward other societies and cultures,[19] the study focuses on participants' pre-study abroad foreign language *skill*, via the following IDI customized question: "Can you interact accurately and effectively with others using a language other than English?" Admittedly, such a request for self-assessment leaves room for positive answers at many different levels of actual language knowledge, but it has the virtue of focusing on the main benefit of acquiring or possessing a second language. A positive answer to the question was coded as a 1; a negative answer was coded as 0. A second customized question, however, reflected a different approach: "Have you studied a language other than English for at least a year at the college level or tested out of the equivalent of at least a year of college-level language study?" Positive answers were coded as 1, negative answers as 0.

The literature relating to multicultural identity and study abroad outcomes for U.S. students is limited, and largely seems to equate multicultural identity with membership in a racial minority group. But it does make the point that study abroad can have a particular impact on those who wish to explore their cultures of origin (Brux & Fry, 2010). The cultural identity variable was coded as 1 if participants self-identified as belonging to more than one national culture, and coded as 0 for participants who self-identified as members of a single national culture. Nguyen and Benet-Martínez (2007) accept self-identification as useful shorthand for identifying bicultural identity, and, though they criticize it as a proxy for psychological acculturation, also note the

[19] Numerous references are available from the American Council on the Teaching of Foreign Languages at http://www.actfl.org/advocacy/discover-languages/what-the-research-shows.

widespread use of immigrant *generation* as an identity variable. If increasing experience of intercultural difference is indeed associated with increasing intercultural sensitivity (Dong, Day, & Collaco, 2008), it seems fair to expect that experiences of intercultural difference in one's own family are likely to contribute. In an effort to gauge the relevance of this factor to an individual's intercultural development, the researcher asked participants: "Was one or more of your grandparents born and raised at least to age 18 in a country other than the United States?" This provided a second cultural identity variable, with a positive answer coded as 1, and a negative answer coded as 0.

The IDI as employed in this study also included the following standard question: "Are you a member of an ethnic minority in your own country?" [20] Research so far suggests that race, admittedly not exactly the same thing as ethnicity, does *not* have a statistically significant impact on intercultural learning in study abroad (Salisbury, An, & Pascarella, 2013). This study nonetheless does employ self-reported membership in an ethnic minority as a dichotomous independent variable, though remaining mindful that "ethnic minority" may not be a completely precise concept in some peoples' minds.

**Program characteristics variables.** The study considers the impact on student outcomes of the following characteristics of study abroad programs:

- Cultural distance of the host country from the United States
- Intentional pedagogy to promote intercultural competence
- Use of a language other than English in the classroom
- Immersion in the host country educational system

[20] See an example of an IDI score report at https://idiinventory.com/wp-content/themes/evolution/pdfs/Jose_-_Exemplar_-_Profile_-_August_2012.pdf.

- Housing type

The cultural distance variable is intended to operationalize the idea that disruptive situations are likely to promote transformative learning. Having to navigate a culture where English is *not* the primary language (or at least the widely spoken lingua franca) presumably will be more disruptive than operating within an Anglophone culture. To test this concept, the study includes a dichotomous independent variable, with study in Anglophone countries coded as 0, and study in non-Anglophone countries coded as 1. Within limits stemming from sample size, the study also assesses whether study abroad in different world regions is associated with differential intercultural development outcomes.

Coding for intentional pedagogy to promote intercultural competence reflects experimental group members' answers to the following question: "Were you required to take courses or engage in other study abroad activities explicitly and specifically intended to develop intercultural communication skills or sensitivity?" Negative answers were coded as 0; positive answers were coded as 1, reflecting the assumption, grounded in the literature, that intentional intercultural pedagogy would be associated with increased, i.e. more intercultural, IDI scores.

Experimental group members reported whether their study abroad experience involved use of a language other than English in the classroom, either in actual language study or in content courses. Foreign language use is thought to be associated with increases in intercultural development, pre- to post-test, hence foreign language use was coded as a 1, with no foreign language use in a classroom setting coded as 0.

The impact of immersion in a host country university setting on intercultural

development is a vexed issue, although there is an increasing body of evidence that such immersion does not have the expected effect of automatically boosting intercultural development, absent specific interventions by study abroad professionals. Self-reported participation in host country university classes specifically intended for host country students nonetheless was coded as a 1, while non-participation in such classes was coded as 0.

With respect to housing, the literature has focused heavily on the impact of home stays, and there is reason to believe that, at least under some conditions, home stays can be significantly associated with gains in intercultural development. Students participating in study abroad, however, now live in a wide variety of settings. Housing in university dormitories intended for host country students, for instance, also can provide extensive and intensive contact with the host culture. In the interest of preserving a dichotomous variable, housing primarily with host country nationals was coded as 1, while all other housing solutions were coded as 0.

Regrettably, the study does not address the impact of study abroad program duration on the intercultural development level of participants. The researcher was not able to recruit a sufficient number of students going abroad for an entire academic year to allow for meaningful comparison with those going abroad for one semester. Attempts to recruit students going abroad for short-term programs during the summer of 2014 failed completely, despite the kind assistance of LUPU authorities in reaching out to this cohort.

**Data collection**. As already indicated, this study relies on self-reported demographic and biographical information from participating students, collected primarily via the IDI itself. In addition to the 50 questions used in determining

intercultural development scores, the IDI included at the time of administration a series of questions on matters such as gender, age, time the participant has lived outside the United States, where the participant was raised, ethnic minority status, and citizenship. In addition to the standard demographic questions, it is possible to add up to six customized multiple-choice questions, with as many as 12 possible answers each. Thus it was possible to insert directly into the pre-test IDI questions regarding participants' preexisting foreign language competence and study, academic major, cultural identity, and residence outside the United States.

Post-test IDIs for members of the experimental group included the following questions regarding their study abroad experiences:

- Were you required to take courses or engage in other study abroad activities explicitly and specifically intended to develop intercultural communication skills or sensitivity?
- Were you in any classes at a host country university that were primarily intended for host country students?
- Did you take courses conducted in a language other than English, either actual language courses or content courses taught in the second language?
- What type of housing were you in?

Yes and no were the only possible answers for the first three questions. The housing question had multiple possible responses: home stay, dormitory for host country students, dormitory for American students, dormitory for international students, group housing for American students, other. (In coding, the researcher combined answers to create a dichotomous variable, based on whether a participant resided primarily with host country

nationals or not.) The forms on which students signaled their consent to take part in the study also included requests for some demographic/biographical information, as discussed further under "Timelines and Procedures."

## Design

In addition to assessing the association between a semester of study abroad and pre- to post-test change in IDI Developmental Orientation and Cultural Disengagement scores, this study considers the impact on study abroad outcomes of two sets of factors: 1) demographic traits and personal experiences that students bring with them into study abroad; 2) specific characteristics of the study abroad programs in which students participate. For the sake of brevity, it makes sense to refer to them as personal and program variables. Research Question 1 specified above required comparison of mean pre- to post-test change in IDI scores (DeltaDO and DeltaCD) for the experimental and control groups. Because the personal variables were available for members of both groups, it was possible to examine whether and to what degree those variables had significant associations with differences between the experimental and control groups in IDI score change over a semester (Research Question 2). The potential impact of program variables (Research Question 3) was obviously restricted to those who actually did study abroad. i.e. experimental group members. Hypothetically, it would have been possible to explore the impact of program factors while controlling for the personal factors, but, as discussed in Chapter 4, there was little point doing so.

### Statistical Analysis

The researcher employed SPSS 23 for the main statistical analysis, along with an

online effect size calculator by Paul Ellis of Hong Kong Polytechnic University.[21] Addressing Research Questions 1 and 2 involved group mean comparisons using analysis of variance (ANOVA). Question 1 required two one-way ANOVAs, with DeltaDO and then DeltaCD as the dependent variables and group (experimental or control) as the categorical independent variable in both analyses. (This was to all intents and purposes the equivalent of conducting independent-sample *t*-tests.) Chapter 4 includes the statistical significance (*p*) of the group comparisons, as well as Cohen's *d* for effect size. For Question 2, involving the impact of personal characteristics on differences in IDI score change, the researcher employed two-way between-groups ANOVA, again with DeltaDO and Delta CD as dependent variables, with group as one of the categorical independent variables, and each of the personal characteristics variables, in turn, as the second categorical independent variable. Chapter 4 includes the *p* and *d* values for each analysis. Where the analysis indicates statistically significant *interaction* effects between group and a personal variable, Chapter 4 includes those results. Where the interaction effect is not statistically significant, the report includes any significant main effects, including main effects for the personal variables.

The data meet assumptions for the use of ANOVA. The dependent variables are measured using continuous scales. The observations are independent, not collected in any group settings. Participants completed the research instrument on their own.

The data also meet the normality assumption. DeltaDO, the primary dependent variable of interest, is normally distributed in both the experimental and control groups, as demonstrated in Figures 3-1 and 3-2.

[21] http://www.polyu.edu.hk/mm/effectsizefaqs/calculator/calculator.html.

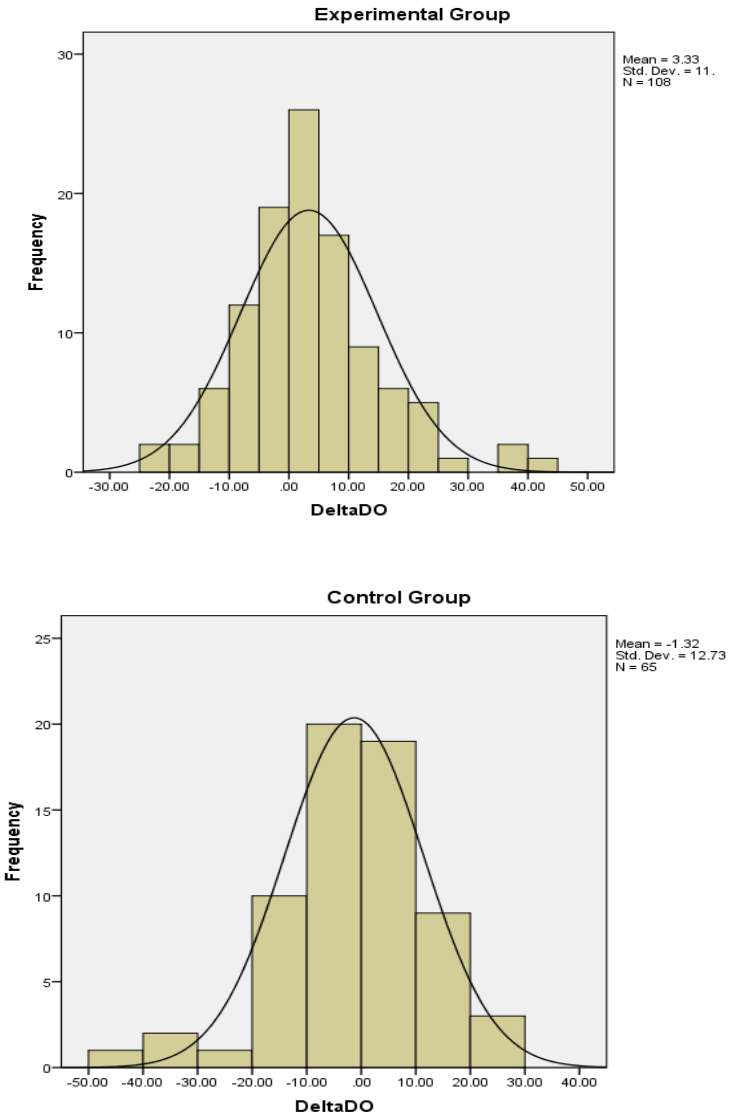


*Figure 3-1*. Frequency distributions of DeltaDO scores for experimental group and control group.

The frequency distribution of DeltaDO values for both groups largely corresponds to a bell curve. Note also that the Q-Q normality plots in Figure 3-2, in which each value is plotted against the value expected in a normal distribution, follow reasonably straight lines. This also suggests a normal distribution. The Kolmogorov-Smirnov statistic for the control group ($p$ = .200) is well above .05, indicating normality. For the experimental group, on the other hand, the Kolmogorov-Smirnov statistic is .017, which suggests a

non-normal distribution. But the histogram and Q-Q plot for the experimental group clearly suggest normality.

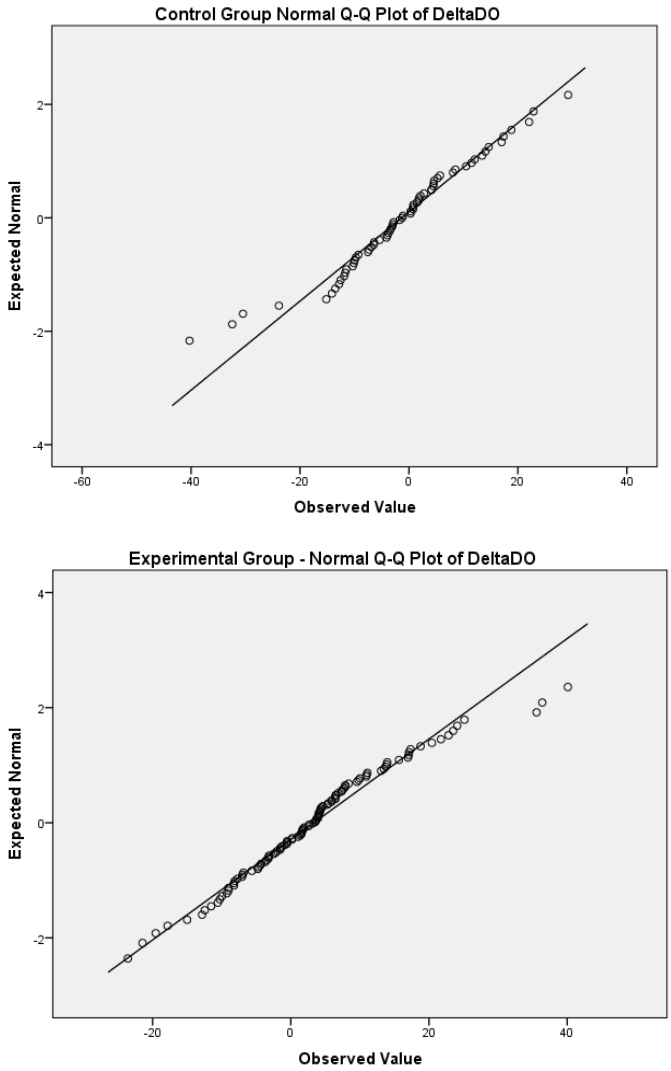


*Figure 3-2.* Q-Q normality plots for the control group (above) and experimental group (below).

It would be easy to obtain a more satisfactory Kolmogorov-Smirnov statistic for the experimental group by removing a few outliers. The boxplot in Figure 3-3 below shows that SPSS analysis indicated five outliers: three on the high end, two on the low end.

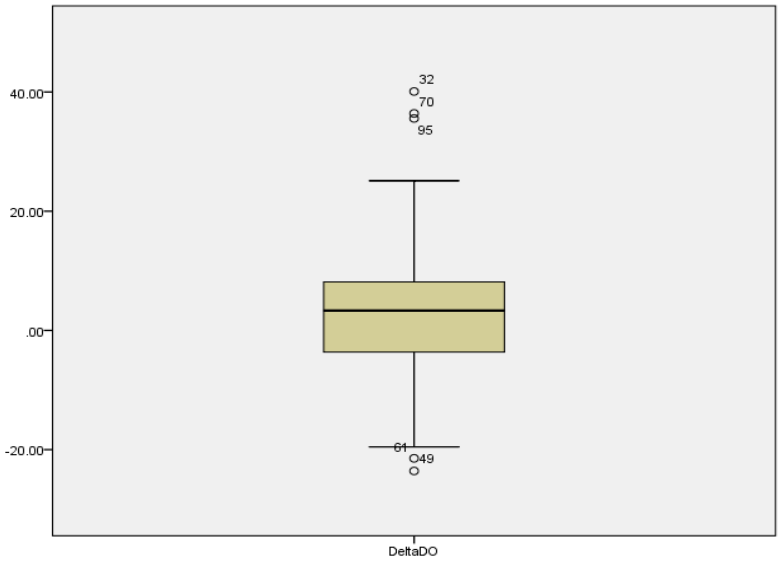


*Figure 3-3.* Boxplot of DeltaDO for the experimental group.

But the researcher's review of the demographic characteristics of the participants with these "outlier" scores does not suggest that they stand out from other experimental group members in any particular way, hence the decision *not* to remove any outliers. Since all indications are unanimous regarding normal distribution in the control group, there seems little point to removing any of the outliers that the SPSS program nonetheless signals.

Using pre- to post-test change in IDI Cultural Disengagement score (DeltaCD) as the dependent variable, results are comparable to those for DeltaDO in the experimental group: both the experimental and control groups have Kolmogorov-Smirnov statistics that indicate non-normal distributions, but histogram and Q-Q plots are consistent with normal distributions.

Homogeneity of variance is another important assumption in ANOVA. Reports below of individual analyses note those cases in which Levene's test indicates non-homogeneity of variance.

With the objective of using multiple regression to analyze the effect of the

program characteristics on outcomes for students who studied abroad (Research Question 3), the researcher undertook appropriate preliminary analyses, including a test of correlations between DeltaDO and DeltaCD and the program variables, as well as confirmatory tests employing analysis of variance. The results, reported in Chapter 4, indicate that employing multiple regression would be of no additional benefit.

**Missing Data**

The experimental and control groups include only participants who completed both pre- and post-test IDIs, hence no data are missing for the dependent variables (DeltaDO and DeltaCD). Almost no data are missing for the independent variables. One member of the experimental group did not respond to the question about membership in an ethnic minority. Three members of the experimental group declined to answer the gender question on the IDI, but all had characteristically female first names and indicated no discomfort or reservations at being addressed by those names. The researcher hence created a "standardized" version of the gender variable, with those three participants coded as female. No members of the control group declined to answer the IDI gender question. With respect to having a grandparent born and raised outside the United States, four members of the control group and one member of the experimental group provided a "probable" yes or no, which the researcher then coded as yes or no respectively in a "standardized" form of the grandparent variable. Although four answers were missing on two demographic questions regarding participants' prior experience abroad, it was nonetheless possible to determine whether all members of both groups had spent more than 3 months abroad before participating in the study. Missing data appear to be *missing completely at random*, in other words, for reasons unrelated to their value or to the value

of any other variables.[22] The statistical analyses include pairwise rather than listwise deletion.

## Timeline and Procedures

Recruitment of study participants began late in the Spring 2014 semester. LUPU's study abroad office allowed the researcher to brief students selected for study abroad in Fall 2014 during the required pre-departure orientation sessions. In addition to explaining the study and soliciting participation, he provided all those present with an information sheet approved by the university's Institutional Review Board (IRB) and a form on which students could indicate their informed consent to participate in the study, and also provide contact and limited demographic information. Of roughly 400 undergraduate students going abroad in Fall 2014, 162 consented to participate in the study. Of those, 110 went on to complete a SurveyMonkey online form regarding the study abroad programs in which they would be participating, almost all of this between late April and mid-June. (Three rounds of reminder messages went out between early May and early June.)

On April 29, 2014, the researcher began sending e-mails to students as they responded to the SurveyMonkey questionnaire, with IDs and passwords that would allow them to complete the pre-test IDI online. One hundred three students ultimately received such log-in information. The researcher tracked completion of IDIs, and sent reminders to those who had not completed the instrument. The first reminders went out at the beginning of May, and the reminder process continued until a last wave in late

[22] See Howell's synthesis of missing data questions at http://www.uvm.edu/~dhowell/StatPages/More_Stuff/Missing_Data/Missing.html.

August/early September, at which point most students were starting their programs abroad. Seventy-six participants completed the pre-test IDI over the summer of 2014. The website used in administering the instrument regrettably does not include the exact date and time when IDIs are completed.

It would have been optimal to administer the pre-test IDI at the same time to all participants, close to their departure for study abroad. But this was simply not feasible, given that most students were away from the home campus over the summer, and then proceeded directly to study abroad. Their study abroad programs also did not have uniform starting dates.

On November 19, as the Fall 2014 semester was finishing, the researcher began sending IDI log-in information to study participants who were abroad, asking them to complete the instrument upon conclusion of their semester abroad. Final reminders went out on January 6, 2015, as the Spring semester was beginning at LUPU. As the sampling tree in Figure 3-4 below illustrates, of the 76 participants who completed the pre-test IDI, 66 completed the post-test administration.

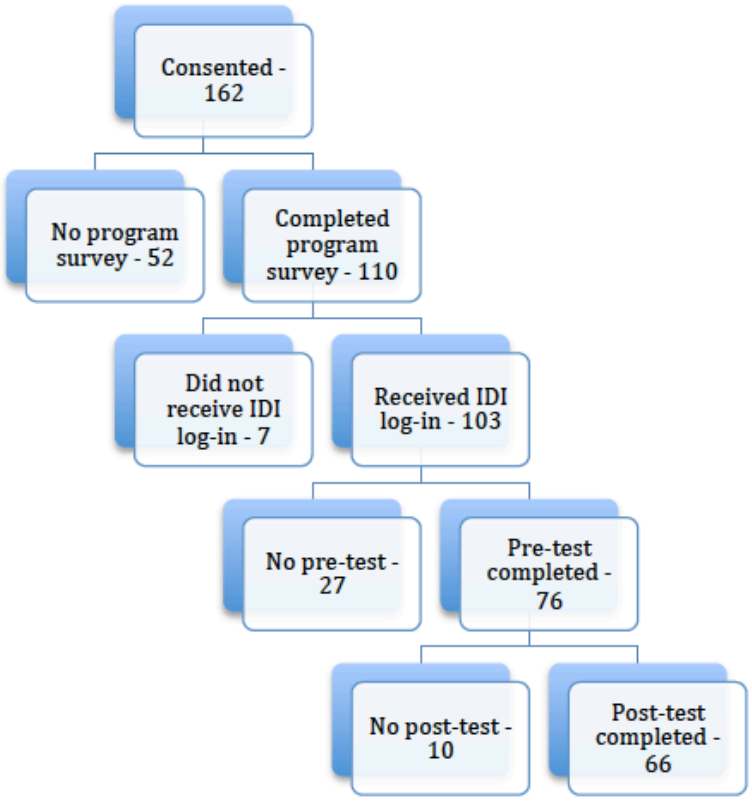


Figure 3-4. Sampling tree for Fall 2014 experimental sub-group.

Mindful of the steep drop-off between the number of Fall 2014 study abroad students who consented to participate in the study and those who actually completed the next step of the process (the SurveyMonkey questionnaire), the researcher proposed to the university's Institutional Review Board, and received approval for, a simplified process, eliminating the questionnaire and having students report information on their study abroad programs exclusively on the post-test IDI. LUPU authorities allowed the researcher to participate in pre-departure orientations for students going abroad in Spring 2015 semester. Again he briefed the students on the research and solicited their participation, distributing a revised, IRB-approved fact sheet and form on which to

indicate consent and provide contact and demographic information. Out of roughly 400 students going abroad for the Spring semester, 127 consented to participate in the study. Between November 19 and 21, 2014, they received via e-mail the log-in information required to complete the pre-test IDI, with reminders going out until the beginning of the new semester. On May 6, 2015, as the end of the semester was approaching for at least some students, the researcher began sending out log-in information for the post-test IDI's, asking them to complete the instrument at the end of their program. Some students pointed out that their programs would not finish until late June. The last reminders went out on June 28, but the last IDI had been completed on or about June 24. Out of 59 who had completed the pre-test IDI, 42 completed the post-test administration, as illustrated in Figure 3-5 below.

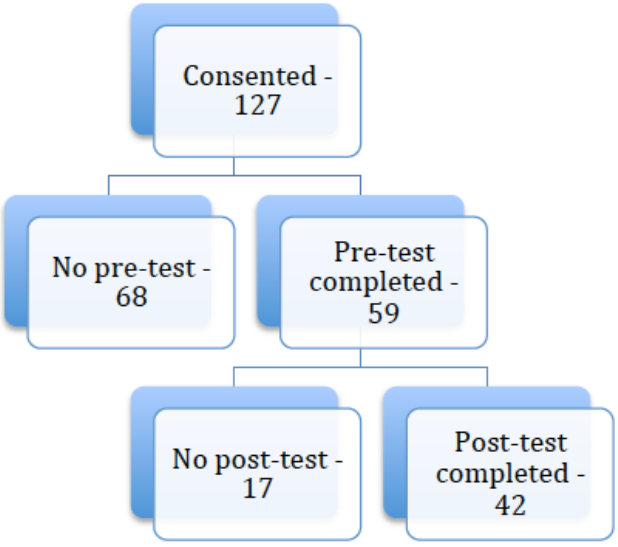


Figure 3-5. Sampling tree for Spring 2015 experimental sub-group.

As with the Fall 2014 study abroad sub-group, members of the Spring 2015 sub-group did not all take the pre-test IDI at the same time, though that would have been

optimal. On average, one also would expect that the time between completing the pre-test and post-test IDIs was somewhat shorter for the Spring sub-group than for the Fall sub-group, given that the former had less time between consenting to participate in the study and actually departing for study abroad. As noted above, however, there was no significant difference between the two sub-groups when it came to change in their Developmental Orientation scores, pre- to post-test.

The simplified recruitment approach employed with the Spring 2015 study abroad participants had no significant benefit. In the Fall 2014 group, 66 of the 162 who consented to participate (41%) completed all requirements. In the Spring 2015 group, only 42 of 127 who consented (33%) actually completed all the requirements. One could speculate that students who go abroad in the Spring and Fall semesters may be different, but it seems more likely that the prospect of returning to school soon after study abroad focused the minds of the Fall 2014 group in a way that the Spring 2015 cohort, looking forward to summer vacation after study abroad, did not experience.

Recruiting participants for the control group was frankly a greater challenge than securing experimental group participants. Only for the latter was there a convenient rallying point and opportunity to solicit participation. A first attempt to recruit control group members, late in the Spring 2014 semester, was an utter failure. Notices in the student newspaper, signs around campus, and flyers distributed in the main dining facility received only one response. After receiving IRB approval, the researcher implemented a revised approach, contacting professors in courses with a significant international dimension, e.g. use of a language other than English or the study of international affairs or international business, asking to brief students in their classes at the beginning of the

Fall 2014 semester regarding the study and to solicit their participation. (The idea was that students in internationally oriented courses would be somewhat similar to those who would be studying abroad.) The response from faculty members was gratifying, including from a university department that maintains an extensive database of student participants for survey research. 130 students consented to participate in the study as members of the control group, and two students who had been planning to go abroad but then changed plans agreed to participate as well. The researcher began sending out log-in information for the pre-test IDI on August 25, 2014, the first day of class for the Fall semester, and sent a last reminder on September 12, not wishing to cut further into the semester.

Of the 130 volunteers, 80 completed the pre-test IDI. The last day of classes was December 6, and the first participants to complete the post-test IDI did so in late November. The last post-test IDIs were completed at the end of December. Of the 80 who completed the pre-test IDI, 65 completed the post-test administration. (See the sampling tree in Figure 3-6 below.) A larger share of volunteers (50%) actually completed all requirements as compared to the study abroad groups, but this probably stemmed from the fact that participants in the aforementioned department research subject pool were able to receive research credits for participating in the study, as long as they completed all requirements.

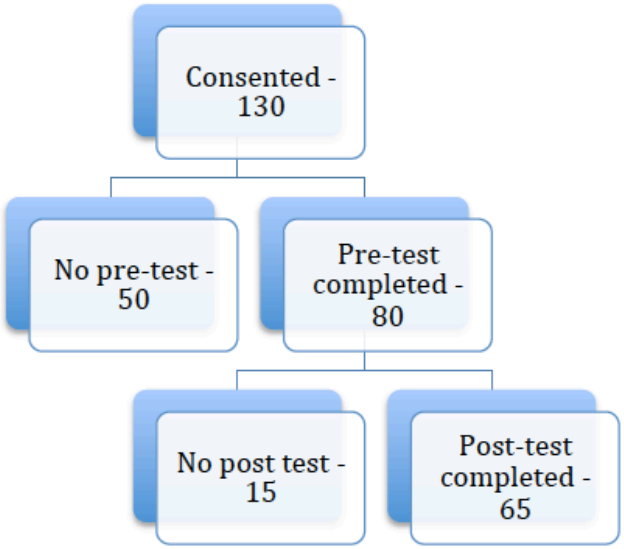


Figure 3-6. Sampling tree for control group.

On average, the pre- to post-test time gap for the control group presumably was somewhat shorter than for the experimental group. We already have seen, however, how the time gap difference between the two study abroad sub-groups did not translate into any between-groups difference in DeltaDO. This in turn should mitigate concerns about control vs. experimental group time gap differences.

The number of control group participants recruited in Fall 2014 was adequate for statistical purposes, relative to the projected final number of experimental group participants. Hence there was no effort to recruit additional control group members in Spring 2015.

Note that participants did not receive any information on their pre-test IDI results before the post-test administration, for fear of influencing the post-test results. Participants who complete both pre-and post-test IDIs can receive their score reports, in

the context of a one-on-one confidential meeting with the researcher, in his capacity as an IDI Qualified Administrator.

When the Fall 2014 experimental and control group data were available, the researcher entered IDI scores, plus demographic and background data, and study abroad program information for experimental group participants, into SPSS 23 files. (This data was not linked, of course, to names or other personally identifiable information.) A preliminary analysis, based only on Fall 2014 experimental and control group data, formed the basis for a May 27, 2015 poster presentation at the annual meeting of NAFSA: Association of International Educators. The researcher entered all data for the Spring 2015 experimental group after the post-test IDI results became available at the end of June, and conducted the analysis reported here.

**Instructions Given to Participants**

The IDI itself includes detailed instructions for those completing it. The researcher's means of providing instructions and guidance to study participants were primarily: 1) the briefings soliciting participation in the study; 2) the required IRB-approved fact sheets distributed to all students during said briefings; 3) e-mails transmitting IDI log-in information to study participants. The instructions in all three formats were consistent.

The researcher underlined that the focus of the study was *change* over a semester in ways of understanding and addressing culture difference, and that the study was not intended to rank participants, or in any way judge them, based on Intercultural Development Inventory scores. Although the IDI assigns higher scores to the more intercultural mindsets, suggesting a bias in favor of those mindsets, the researcher

stressed that in his view there were no "better" or "worse" scores, and that he did not attach any value judgments to the scores.

Participants understood clearly that their involvement in the study was purely voluntary, and that they could withdraw from the study at any time without any consequences. A handful of study abroad students opted out of completing the pre-test IDI or started the instrument but did not submit it. Four students from the control group pulled out after completing the pre-test IDI. Students were aware of the frankly very small chance that they would find some questions on the IDI disturbing, and that they were not required to answer any questions they did not feel comfortable answering. The researcher received no indications from participants, however, of any concerns about the IDI itself.

## Human Participants and Ethics Precautions

LUPU's Institutional Review Board agreed that the study posed only minimal risk to participants, with probable harm or discomfort not greater than one normally would encounter in daily life. Security of personal information was thus the main consideration to address in protection of human participants.

The forms that participants used to indicate their informed consent contain names, contact information, and other personal information, and are securely stored in the researcher's residence. No one else has access. As with all research-related data, the researcher will conserve these for five years after successful defense of this dissertation. This should allow time for publication of the results and for checking any parts of the data that may come under question by reviewers, editors, or fellow researchers.

The SurveyMonkey questionnaires that participants in the Fall 2014 experimental

group completed were deleted from SurveyMonkey storage, and will be retained only in printed form, under secure storage in the researcher's residence. In any case, SurveyMonkey never received the names of participants, identified only by individual alphanumeric codes, to which only the researcher holds the key, stored securely.

IDI results are available *exclusively to the researcher as a Qualified Administrator* on the secure website of IDI, LLC, the company that administers the IDI. A majority of participants opted to provide their names when completing the IDI, but there is no risk of compromise. Not even the directors of IDI, LLC can access this information. The researcher opted *not* to provide de-identified data to IDI, LLC for its ongoing research.

For tracking progress on participants' completion of study requirements, the researcher used a password-protected Excel spreadsheet with participants' individually assigned alphanumeric codes as the identifiers. The spreadsheet resides on the researcher's personal computer, securely stored at his home, with appropriate security software protection. For statistical analysis, the researcher personally entered all data into SPSS 23 files on a separate computer, also stored in his home and not used for Internet access.

The Principal Investigator indicated in the IRB submission, Prof. Roger Whitaker, and the researcher are the only people with access to any data, written or in electronic format, relevant to this research project, and have adhered to all requirements established by LUPU's Institutional Review Board, including submission of a modification request when it became evident that alternative approaches to recruiting control group participants would be required. (See section on "Timeline and Procedures" above.) There

has been and will be no disclosure of identifiable personal information collected during this research in any discussions or presentations.

In the interest of transparency, it is worth noting that skepticism about the actual as opposed to promised benefits of study abroad for U.S. undergraduates is a motivation for the researcher. After teaching in two study abroad programs in Italy (2007-2008 and again in 2010), the researcher came away with considerable anecdotal knowledge of study abroad, and the impression that, for the majority of participants, the benefits, as compared to those of a semester or year at their home institutions, were unclear. He also realized, however, that this was not the same as having empirical evidence gathered and analyzed through rigorous processes. The researcher began the work presented here fully ready to be convinced that his negative personal impressions of student development in study abroad reflected the characteristics of two specific programs, and should not be generalized. In fact, his personal study abroad experiences, and those of family members, had been highly enriching, and this already balanced the aforementioned negative perceptions. The choice of a quantitative approach, employing a well-established and extensively validated instrument for gauging intercultural development, plus a focus on the impact of personal and program characteristics that could be defined in clear and factual terms, reflected the desire to manage risks of researcher subjectivity.

# CHAPTER 4: RESULTS

Participating students who spent a semester studying abroad on average experienced a statistically significant but modest shift toward a more intercultural mindset, as compared to students who remained on the home campus. Among demographic and life experience variables, gender had a statistically significant association with differences in pre- to post-test intercultural development change between the experimental (study abroad) and control groups, with a medium-to-large effect size. Women were more likely than men to become more interculturally-minded during study abroad. Participants who self-identified as members of more than one national culture, or who had at least one grandparent born and raised outside the United States, also were statistically significantly more likely than others to show an increasingly intercultural mindset in association with study abroad. (The effect sizes were medium-to-large and large, respectively.) Despite the ample literature suggesting that the specific characteristics of study abroad programs influence the intercultural development change of participating students, this study identified no statistically significant impact of such program characteristics. These conclusions admittedly were based on data from students at a single university. Also, the samples of 108 study abroad participants and a control group of 65 provided only moderate, though acceptable, statistical power. Larger samples might have identified additional effects as statistically significant.

## Study Abroad and Intercultural Development Change

Did Large Urban Private University (LUPU) students who spent a semester abroad (Fall 2014 or Spring 2015) move more toward an "intercultural mindset" (as defined and measured by the Intercultural Development Inventory) than comparable

students who remained on the home campus for a semester? Based on previous research, the working hypothesis here was that study abroad would be associated with an increase in intercultural-mindedness. Mean change in pre- to post-test Developmental Orientation (DO) scores on the Intercultural Development Inventory (IDI), hereafter referred to as "DeltaDO," for the 108 study abroad participants (experimental group) was in fact statistically significantly more positive than for the 65 students who remained at LUPU's home campus during Fall 2014 (control group), as illustrated in Figure 4-1.

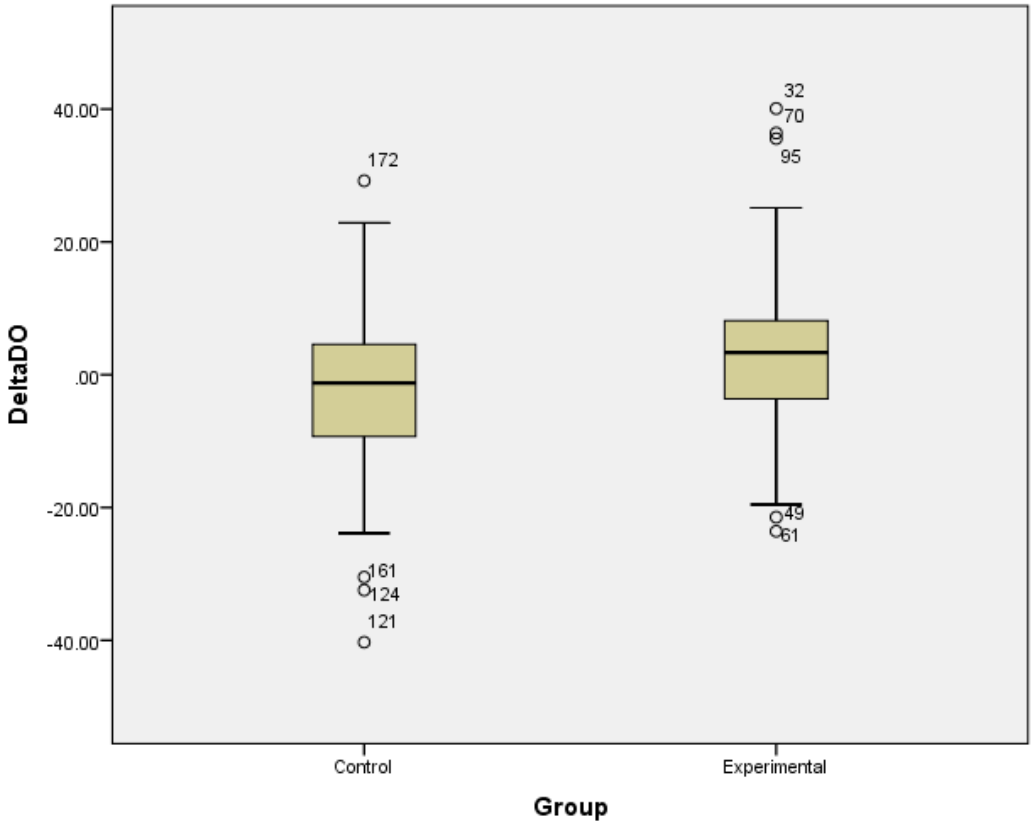


*Figure 4-1.* Comparison of pre- to post-test IDI Developmental Orientation score change by group.

The difference in mean DeltaDO between the experimental and control groups was over 4.6 points. (Developmental Orientation is scored on a scale that runs from 55 to 145, with standard deviation of 15). Mean DeltaDO was positive for the experimental group, and negative for the control group, as indicated in Table 4-1.

Table 4-1
*IDI Developmental Orientation (DO) Scores: Control and Experimental Groups*

| | *n* | *M* | *SD* |
|---|---|---|---|
| Control Group | | | |
| Pre-Test | 65 | 90.24 | 14.39 |
| Post-Test | 65 | 88.93 | 17.92 |
| DeltaDO | 65 | -1.32 | 12.73 |
| Experimental Group | | | |
| Pre-Test | 108 | 90.58 | 14.43 |
| Post-Test | 108 | 93.91 | 13.88 |
| DeltaDO | 108 | 3.33 | 11.46 |

To determine whether the difference between group means was in fact significant, the researcher employed a one-way between-groups analysis of variance (ANOVA) test, largely analogous to an independent-samples *t*-test. The between-groups effect was statistically significant at the $\alpha = .05$ level: $F(1,171) = 6.140$, $p = .014$, Cohen's $d = .38$. The *d* value indicates a small-to-medium effect size.[23]

[23] Based on Cohen's rule of thumb that a *d* of .2 represents a small effect size, .5 is medium, and .8 is large.

Since the analysis of variance found a statistically significant difference, adequacy of statistical power was not an issue of concern. To be clear, however, and as discussed in detail in Chapter 3, the sample sizes in this study provided statistical power of over .81 for detecting statistical significance of a *medium-sized effect* of $d = .50$. Thus small or small-to-medium effects could fail to register as statistically significant.

Beyond effect size, it is also important to consider whether the score changes found in the study indicate movement from one level of intercultural development (as defined in the Intercultural Development Continuum) to another. The mean IDI Developmental Orientation scores in fact do not suggest that study abroad was associated with shifts from one way to another of understanding and addressing cultural difference, as defined in the instrument.. Both the pre- and post-test means for the experimental and control groups (see Table 4-1) put participants in the IDI's Minimization category, the broad middle, in which individuals minimize cultural difference and focus on points of commonality in dealing with members of other cultures.

Looking instead at the distribution of study participants across the five levels of the Intercultural Development Continuum (Denial, Polarization: Defense/Reversal, Minimization, Acceptance, and Adaptation), the pre-test IDIs resulted in similar distributions for the control and experimental groups, as illustrated in Figure 4-2. Comparison of the two pre-test distributions employing $\chi^2$ analysis indicated that the frequencies for the five levels were not statistically significantly different between the two groups: $\chi^2 (4, n = 173) = 1.649$, $p = .800$, Cramer's $V = .049$ (a very small effect size, based on Cohen's benchmarks).

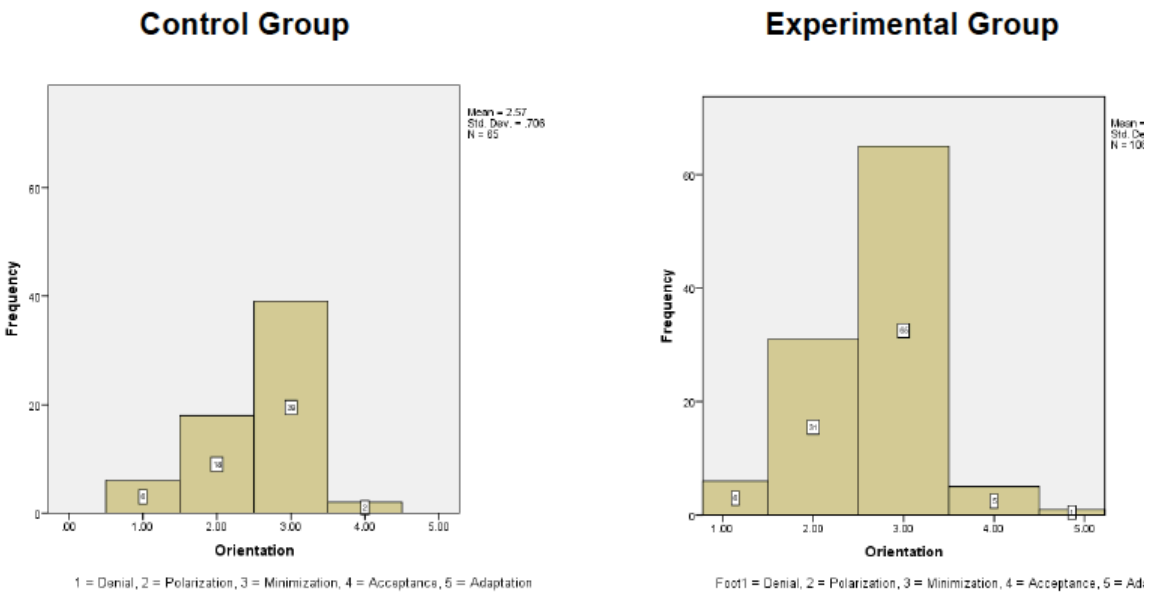


*Figure 4-2*. Pre-test distributions of intercultural development levels based on IDI scores.

The distribution of post-test intercultural levels for the two groups, on the other hand, looked somewhat different, as illustrated in Figure 4-3. The distribution in the control group was more skewed in the monocultural direction than the distribution for the experimental group. Comparison of the two distributions using $\chi^2$ analysis indicated that the frequencies were statistically significantly different between the two groups at the $\alpha$ = .05 level: $\chi^2$ (4, $n$ = 173) = 9.768, $p$ = .045, Cramer's $V$ = .12 (a small effect size).

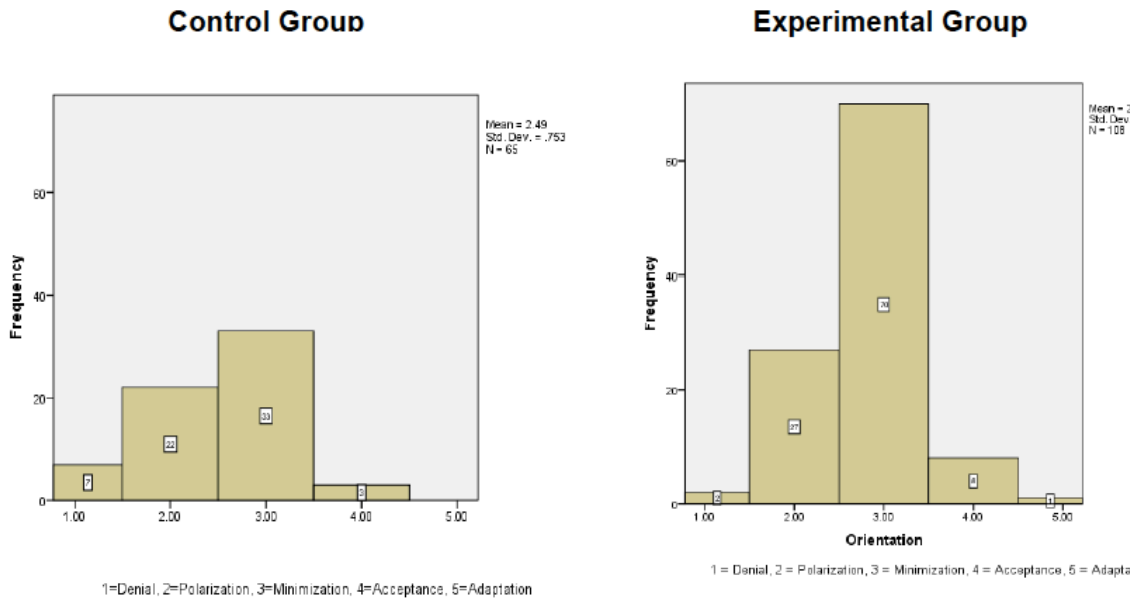


*Figure 4-3*. Post-test distributions of intercultural development levels based on IDI scores

In both the experimental and control groups, a number of participants experienced pre- to post-test change of one or more levels in intercultural development, as defined by the Intercultural Development Continuum. As Figure 4-4 illustrates, change went in both directions, i.e. toward more and less intercultural mindsets, but those who studied abroad were more likely to go *up* one or two levels than were members of the control group. Comparison of the two distributions using $\chi^2$ analysis indicates a statistically significant difference between the two groups at the $\alpha = .05$ level: $\chi^2$ (4, $n$ = 173) = 10.194, $p$ = .037, Cramer's $V$ = .12 (a small effect size).

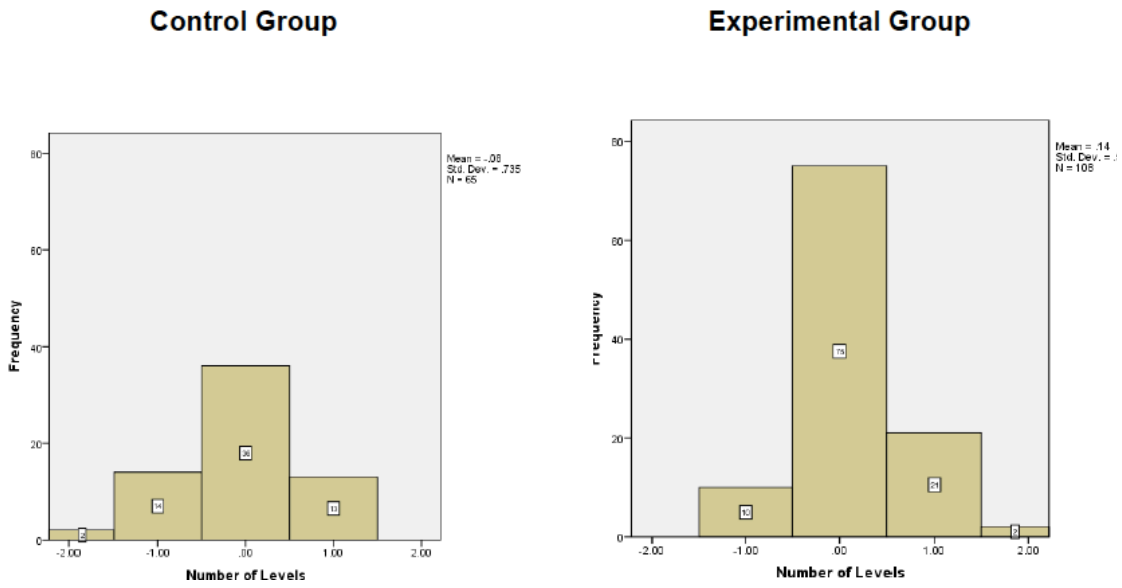


*Figure 4-4*. Change in intercultural development levels

In sum, study abroad was associated with statistically significant change in the distribution of participants across the five Developmental Orientations. But the effect size was small-to-medium, and, as the preceding histograms illustrate, by far the largest share of both groups remained in the Minimization range. These results are largely in line with the mean group IDI Developmental Orientation scores, pointing to primarily incremental change rather than quantum leaps in participants' ways of understanding and addressing cultural difference.

In addition to the key Developmental Orientation score, the IDI also generates a Perceived Orientation (PO) score, on the same scale as Developmental Orientation, measuring how participants view their own degree of intercultural development. There is also a Cultural Disengagement (CD) scale, measuring a sense of disengagement or detachment from one's own cultural group. (This score is actually inverse to the degree of cultural disengagement, with a score of 4.0 or more on a 5-point scale indicating that

one is *not* culturally disengaged.) Table 4-2 contains data on pre- to post-test change in the Perceived Orientation (DeltaPO) and Cultural Disengagement (DeltaCD) scores for the experimental and control groups.

Table 4-2
*Differences in Perceived Orientation and Cultural Disengagement Change*

| | *n* | *M* | *SD* | *p* | *d* (Exp-Con) |
|---|---|---|---|---|---|
| Delta PO | | | | | |
| Control | 65 | -.45 | 4.93 | .033** | .37 |
| Experimental | 108 | 2.66 | 10.96 | | |
| Delta CD | | | | | |
| Control | 65 | -.11 | .62 | # .000*** | .57 |
| Experimental | 108 | .30 | .83 | | |

Note: * statistically significant at α =.10, ** significant at .05, *** significant at .01.
# Welch's test applied, given non-homogeneity of variances.

Pre- to post-test, the mean gap between the two groups widened when it came to their perceptions of their own levels of intercultural development. Control group members perceived themselves on average as slightly more monocultural, while experimental group members saw themselves as more interculturally-minded. Between-groups analysis of variance found that the group difference in mean DeltaPO was statistically significant at the α = .05 level, and the effect size was small-to-medium: $F(1, 171) = 4.638$, $p = .033$, $d = .37$.

A perhaps more striking outcome was the between-groups difference in DeltaCD. While mean change for the control group was negative (suggesting a *greater* sense of disengagement from their own culture), the increased mean score for study abroad participants suggests they may have emerged from the experience *less conflicted* about their home cultures than before going abroad. Between-groups analysis of variance

found that the difference was statistically significant at the α = .01 level (a more demanding standard than the .05 level commonly used in social science) with a medium effect size: $F(1,171) = 7.012$, $p = .001$, $d = .57$.

Similarities in the comparisons between the experimental and control groups using DeltaDO, DeltaPO, and DeltaCD as the dependent variables are not surprising, due to statistically significant correlations. In the control group, for example, DeltaDO and DeltaPO were very strongly correlated, $r(63) = .97$, $p < .01$. In the experimental group, there was also a strong DeltaDO/DeltaPO correlation, $r(106) = .43$, $p < .01$, along with a DeltaDO/DeltaCD correlation that was statistically significant at the α = .05 level: $r(106) = .25$, $p = .010$.[24] It was beyond the scope of this study to examine why the DeltaDO/DeltaPO correlation was particularly strong in the control group.

## Impact of Students' Personal Characteristics

Are demographic factors and the experiences that students bring with them into study abroad significantly associated with what they get out of the experience, specifically when it comes to intercultural development? The answer seems to be a qualified "yes."

### Personal Characteristics and Change in Developmental Orientation

Table 4-3 indicates the outcome of a series of two-way between-groups analyses of variance, with pre- to post-test change in IDI Developmental Orientation scores (DeltaDO) as the dependent variable, and group (control or experimental) as one of the

[24] Taking members of the two groups together, the DeltaDO/DeltaPO correlation was $r(171) = .529$, $p < .01$, and for DeltaDO/DeltaCD it was $r(171) = .215$, $p < .01$. i.e. both statistically significant at the α = .01 level.

independent variables. The personal characteristics of study participants (see Chapter 3) provided the second independent variable. The table provides information on interaction effects between the two independent variables, indicating which demographic and life experience characteristics were associated with differences in DeltaDO between the experimental and control groups. In essence, it indicates which personal characteristics appeared to influence the impact of study abroad on students' intercultural development.

Female gender, and multicultural identity and family experience, were associated with statistically significant increases in intercultural mindset for those who studied abroad, as compared to those who remained on the home campus. Gender was statistically significant at the $\alpha = .10$ level*:* $F(1, 169) = 3.54$, $p = .062$, $d = .67$ (a medium-to-large effect size). Similarly, students who identified as members of more than one national culture and studied abroad were statistically significantly more likely (at the $\alpha = .10$ level) to shift in a more intercultural direction than counterparts who remained on the home campus: $F(1, 169) = 3.72$, $p = .056$, $d = .61$ (medium-to-large effect size.) A different, in a sense less subjective, indicator of personal multicultural background and experience, the fact of having at least one grandparent born and raised outside the United States, also was strongly associated with positive DeltaDO for study abroad participants, as compared to members of the control group. The difference was in fact significant at the $\alpha = .01$ level: $F(1, 169) = 11.10$, $p = .001$, $d = 1.06$ (large effect size).

Table 4-3
*Interactions of Personal Characteristics and Group, DeltaDO as Dependent Variable*

| | | | *n* | *M* | *SD* | *d* (E-C) | Net *d* | *p* |
|---|---|---|---|---|---|---|---|---|
| Gender | Female | Control | 41 | -2.54 | 11.12 | .64 | .67 (F-M) | .062* |
| | | Exper. | 78 | 4.49 | 10.75 | | | |
| | Male | Control | 24 | .76 | 15.12 | -.03 | | |
| | | Exper. | 30 | .30 | 12.83 | | | |
| Standing | 3d Year | Control | 28 | -2.75 | 13.94 | .51 | .60 (3d-O) | .157 |
| | | Exper. | 100 | 3.70 | 11.27 | | | |
| | Other | Control | 37 | -.24 | 11.81 | -.09 | | |
| | | Exper. | 8 | -1.35 | 13.56 | | | |
| Major | HumSS Lang | Control | 26 | .35 | 12.95 | .29 | -.12 (H-O) | .668 |
| | | Exper. | 62 | 3.82 | 11.02 | | | |
| | Other | Control | 39 | -2.43 | 12.63 | .41 | | |
| | | Exper. | 46 | 2.67 | 12.12 | | | |
| Citizenship | U.S | Control | 54 | -.93 | 12.37 | .33 | .82 (O-US) | .068* |
| | | Exper. | 105 | 2.98 | 11.17 | | | |
| | Other | Control | 11 | -3.25 | 14.87 | 1.15 | | |
| | | Exper. | 3 | 15.38 | 17.52 | | | |
| Minority | Yes | Control | 26 | -3.60 | 12.30 | .64 | .41 (Y-N) | .224 |
| | | Exper. | 30 | 4.09 | 11.66 | | | |
| | No | Control | 39 | .20 | 12.94 | .23 | | |
| | | Exper. | 77 | 3.03 | 11.52 | | | |
| Multicult. Identity | Yes | Control | 37 | -3.83 | 12.48 | .67 | .61 (Y-N) | .056* |
| | | Exper. | 43 | 4.21 | 11.45 | | | |
| | No | Control | 28 | 2.00 | 12.51 | .06 | | |
| | | Exper. | 65 | 2.75 | 11.51 | | | |
| Foreign Grandpar. | Yes | Control | 44 | -4.63 | 11.95 | .77 | 1.06 (Y-N) | .001*** |
| | | Exper. | 41 | 4.92 | 12.67 | | | |
| | No | Control | 21 | 5.62 | 11.69 | -.29 | | |
| | | Exper. | 67 | 2.36 | 10.63 | | | |

| | | | *n* | *M* | *SD* | *d* (E-C) | Net *d* | *p* |
|---|---|---|---|---|---|---|---|---|
| Primary Life Region | N. Amer. | Control | 55 | -1.59 | 12.34 | .42 | .02 (O-NA) | .880 |
| | | Exper. | 104 | 3.34 | 11.38 | | | |
| | Other | Control | 9 | -3.07 | 12.20 | .44 | | |
| | | Exper. | 4 | 2.98 | 15.25 | | | |
| Time Abroad | ≤3 month | Control | 47 | -.23 | 12.88 | .28 | .35 (>3-≤3) | .290 |
| | | Exper. | 81 | 3.18 | 11.07 | | | |
| | > 3 month | Control | 18 | -4.15 | 12.22 | .63 | | |
| | | Exper. | 27 | 3.78 | 12.77 | | | |
| Language Interaction | Yes | Control | 43 | -3.40 | 12.47 | .51 | .39 (Y-N) | .233 |
| | | Exper. | 64 | 2.72 | 11.73 | | | |
| | No | Control | 22 | 2.75 | 12.51 | .12 | | |
| | | Exper. | 44 | 4.22 | 11.12 | | | |
| Language Study | Yes | Control | 56 | -.51 | 12.16 | .29 | -.53 (Y-N) | .136 |
| | | Exper. | 86 | 2.95 | 11.55 | | | |
| | No | Control | 9 | -6.37 | 15.71 | .82 | | |
| | | Exper | 22 | 4.81 | 11.24 | | | |

Note: *ANOVA statistically significant at α =.10, ** significant at .05,
*** significant at .01.

Citizenship (U.S. vs. Other) also figures in Table 4-3 as a statistically significant variable. But the very small number of non-U.S. citizens in the experimental group (3 out of 108) makes it inadvisable to draw conclusions about the between-groups impact of citizenship based on this sample.

Figures 4-5 through 4-7 are intended to help visualize the associations between the gender and multicultural identity and experience variables and differences in DeltaDo scores between the experimental and control groups. The lines composed of dashes represent respectively females, those who identified themselves as members of more than

one national culture, and those with at least one grandparent born and raised outside the United States.

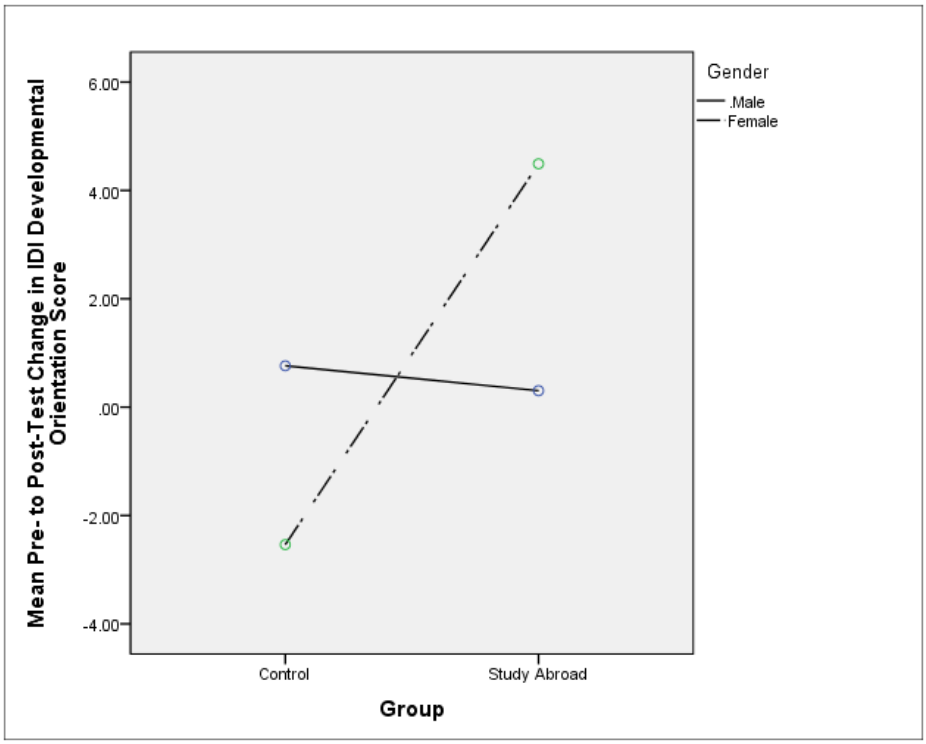


*Figure 4-5.* Interaction between gender and group.

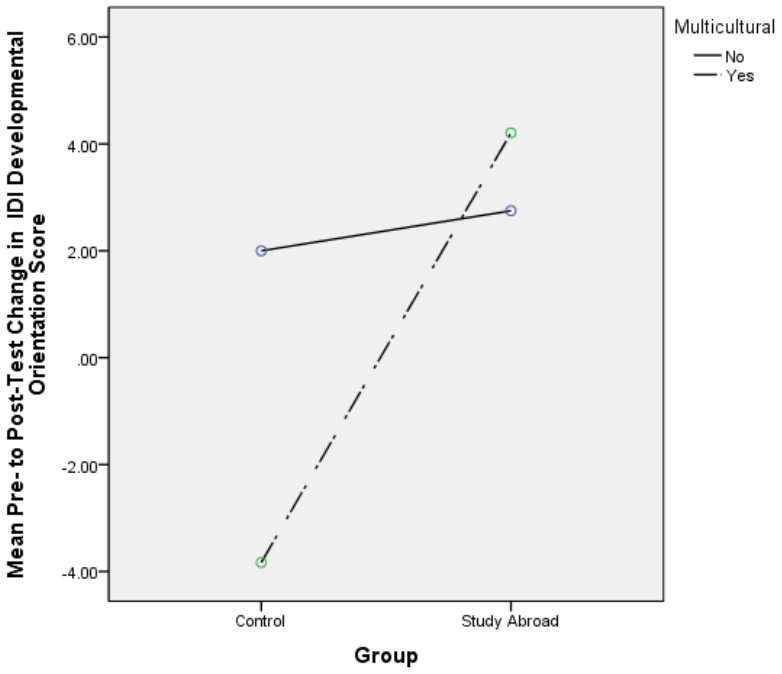


*Figure 4-6.* Interaction between multicultural identity and group.

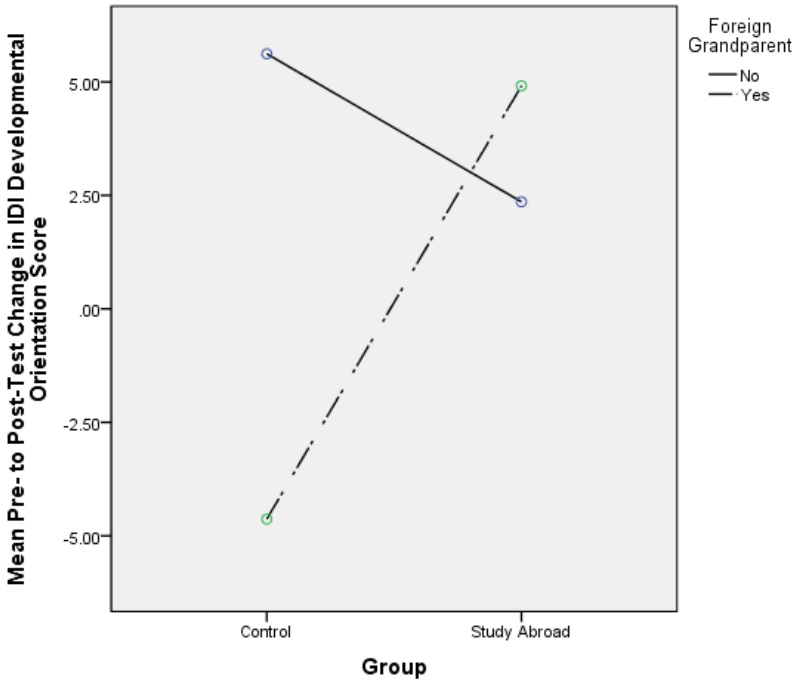


*Figure 4-7.* Interaction between foreign grandparent and group.

Although the interactions between group and the other personal variables do not register as statistically significant, this could be due to limits on statistical sensitivity deriving from sample size, as discussed in Chapter 3. Self-reported membership in an ethnic minority, self-assessed ability to communicate effectively in a language other than English, and having spent more than three months abroad before participating in the study all had effect sizes in the small-to-medium range, comparing DeltaDO between the experimental and control groups, even if the effects did not register as statistically significant. It could be worth looking at these factors in future studies with larger sample sizes. On the other hand, while standing as a 3d-year undergraduate had a medium effect size, the small number of non-3d-year participants, especially in the experimental group (only 8 out of 108), made it difficult to draw any useful conclusions. The same could be said for the Primary Life Region variable, based on participants' reports of where they were raised, since only 4 of 108 members of the experimental group were not raised primarily in North America.

In addition to interaction effects, two-way between-groups analysis of variance also identified statistically significant main effects. For characteristics, however, with a statistically significant interaction effect with group, e.g. gender, it was not possible to assess main effects accurately.

As one might expect, based on the previously reported comparison between the experimental and control groups, the main effect for group was more widely evident than main effects for specific personal characteristics. Group had a statistically significant impact on pre- to post-test IDI Developmental Orientation score change *regardless* of the ethnic minority status of participants, whether they majored in humanities/social

sciences/foreign languages, whether they had at least the equivalent of a year of foreign language study at the college level, or whether they had spent more than 3 months abroad before participating in the study.

Specifically the main effect for group in a two-way analysis of variance with minority as the second between-groups variable was statistically significant at the $\alpha = .01$ level: $F(1, 168) = .471$, $p = .009$. In an analysis with academic major as the second between-groups independent variable, group was statistically significant at the $\alpha = .05$ level: $F(1, 169) = 5.017$, $p = .026$. With language study as the second independent variable, group was statistically significant at the $\alpha = .01$ level: $F(1, 169) = 8.077$, $p = .005$. With time abroad as the second independent variable, group was statistically significant at the $\alpha = .01$ level: $F(1, 169) = 7.117$, $p = .008$. The effect size in all these cases was $d = .38$ (small-to-medium), as already reported for the comparison between the control and experimental groups.

Interestingly, between-groups analysis of variance employing group and self-assessed ability to communicate in a language other than English (language interaction) as independent variables found main effects for *both* that were statistically significant at the $\alpha = .10$ level. In other words, while group impacted on DeltaDO regardless of participants' language ability, language ability impacted on DeltaDO for students in both groups. For group: $F(1, 169) = 3.816$, $p = .052$ $d = .38$ For Language Interaction: $F(1, 169) = 3.881$, $p = .050$, $d = .29$ (small effect size). Interestingly, those who did *not* identify as speaking a second language had a more strongly positive DeltaDO than those who did. For the former, $n = 66$, $M = 3.73$, $SD = 11.52$; for the latter, $n = 107$, $M = .26$, $SD = 12.35$.

**Personal Characteristics and Change in Cultural Disengagement**

In light of the aforementioned indications that study abroad had a significant impact on students' IDI Cultural Disengagement (CD) scores, in the direction of a *less* conflicted attitude toward one's culture of origin, it seemed appropriate to test whether a comparable effect was evident for the personal characteristics that demonstrated a strong interaction with group: gender, multicultural identity, and foreign grandparent. For *none* of these variables, however, did two-way between-groups analysis of variance identify statistically significant interactions or main effects, employing pre- to post-test change in CD scores (DeltaCD) as the dependent variable.

For the gender*group interaction: $F$ (1, 169) = .896, $p$ = .345, net $d$ = .31 (small). For the gender main effect: $F$(1, 169) = .449, $p$ = .504, $d$ = .19 (small). Though neither effect is significant, they were in the direction of women being more likely than men to increase their CD scores, implying *less* conflicted attitudes about one's culture of origin. For the multicultural identity*group interaction: $F$(1, 169) = .615, $p$ = .434, net $d$ = .12 (very small). For the multicultural identity main effect: $F$(1, 169) = .024, $p$ = .878, $d$ = .21 (small). Again, neither effect is statistically significant, but they are in the direction of score increases for the self-declared *monocultural* participants. For the foreign grandparent*group interaction: $F$(1, 169) = .519, $p$ = .472, net $d$ = .28 (small). For the foreign grandparent main effect: $F$(1, 169) = .702., $p$ = .403, $d$ = .24 (small).[25] Interestingly, though the effects are not statistically significant, they are in the direction of a greater positive impact of study abroad on those with a foreign-born grandparent,

[25] Note that in this analysis Levene's test indicated differences in error variance across groups that were statistically significant at the $\alpha = .05$ level.

but, when taking all participants (i.e. experimental and control groups) combined, higher DeltaCD for those without a foreign-born grandparent. That said, those with a foreign-born grandparent started out with less headroom. Their pre-test CD scores were $n = 85$, $M = 4.18$, $SD = .75$, i.e. higher than those for the other participants, $n = 88$, $M = 3.88$, $SD = .96$.

No other personal characteristics tested had statistically significant interactions with group in association with DeltaCD. Some, however, did demonstrate main effects, i.e. an association with pre- to post-test Cultural Disengagement score change across the entire sample. Those with self-assessed ability to communicate effectively in a language other than English had a lower mean DeltaCD than those who did not, although mean DeltaCD was positive for both groups. The difference was statistically significant at the $\alpha = .05$ level: $F(1, 169) = 4.773$, $p = .03$, $d = .39$ (small-to-medium effect). Having spent more than three months abroad before participating in the research also had a statistically significant impact (at $\alpha = .10$) on Cultural Disengagement score change, pre- to post-test: $F(1, 169) = 3.255$, $p = .073$, $d = .40$ (small-to-medium effect size). Those who had spent less time abroad had a positive mean DeltaCD, while those who already had spent three months or more abroad actually had a slightly negative mean DeltaCD. Table 4-4 reports further data on main effects of personal characteristics on DeltaCD.

Table 4-4
*Main Effects of Selected Personal Characteristics Variables on DeltaCD*

| Characteristic | Level | *n* | *M* | *SD* |
|---|---|---|---|---|
| Gender | Female | 119 | .19 | .79 |
| | Male | 54 | .04 | .76 |
| Multicultural Identity | Yes | 80 | .11 | .71 |
| | No | 93 | .18 | .84 |
| Foreign Grandparent | Yes | 85 | .05 | .76 |
| | No | 88 | .24 | .80 |
| Language Interaction | Yes | 107 | .03 | .75 |
| | No | 66 | .33 | .81 |
| Time Abroad | ≤ 3 months | 128 | .22 | .80 |
| | > 3 months | 45 | -.08 | .70 |

**Impact of Study Abroad Program Characteristics**

As noted in Chapter 2, much recent scholarship on study abroad outcomes has focused on the role of specific characteristics of study abroad programs. Data collected from experimental group participants allowed for assessment of relationships between pre- to post-test change in IDI Developmental Orientation scores (DeltaDO) and a series of program characteristics.

As Table 4-5 illustrates, the experimental group data indicated *no* statistically significant correlations between DeltaDO and study abroad in a non-Anglophone country, in a program with intentional intercultural pedagogy (IPED), taking courses specifically intended for host country students, using a language other than English in classes, or residing primarily with host country nationals. This runs contrary to expectations derived from the literature.

Table 4-5
*IDI Developmental Orientation Score Change and Study Abroad Program Characteristics: Pearson r Correlations*

| | Delta DO | Delta CD | Non - Anglo | IPED | Immer- sion. | Foreign Lang. | Host Ctry. Housing |
|---|---|---|---|---|---|---|---|
| DeltaDO | 1.00 | | | | | | |
| DeltaCD | .246** | 1.00 | | | | | |
| Non-Anglo | .067 | -.085 | 1.00 | | | | |
| IPED | .114 | .004 | .303*** | 1.00 | | | |
| Immersion | -.111 | .081 | -.409*** | -.147 | 1.00 | | |
| For.Lang. | .009 | -.124 | .637*** | .235** | -.246** | 1.00 | |
| Host Housing | .089 | .116 | -.041 | .092 | .000 | .061 | 1.00 |

Notes: * statistically significant at α = .10 level;
** at α = .05; *** at α = .01.

A Pearson's correlation of $r = .30$ is at the beginning of the medium range. A sample of $n = 100$ provides power of .87 for a two-tailed test with $\alpha = .05$ to detect the statistical significance of a correlation of .30. With an experimental group of 108, the power is almost .90, though it is important to remember that correlations smaller than .30 might register as statistically significant with a larger sample, and hence with greater statistical power. That said, the correlations here between DeltaDO and the various program characteristics are all within the range indicating no or negligible relationships.

A series of mixed between-within subjects analyses of variance confirmed indications from correlation analysis that the program characteristics were not associated

with pre- to post-test change in IDI score change. These tests employed time (pre- and post-test) as the within-subjects independent variable, and the various program variables as the between-subjects independent variables, with IDI DO scores, not DeltaDO, as the dependent variable. None of the interaction effects was statistically significant, as illustrated in Table 4-6, and the effect sizes, measured as $\omega_p^2$ were either negative (meaning no effect) or so small as to be negligible.

Table 4-6
*Interaction Effects: Program Characteristics and Time of IDI Administration (Pre/Post)*

| | *F* (1, 106) | *p* | $\omega_p^2$ |
|---|---|---|---|
| Anglophone Country | .472 | .494 | - .0049 |
| IPED | 1.389 | .241 | .0036 |
| Immersion | 1.325 | .252 | .0030 |
| Foreign Language | .008 | .928 | - .0000 |
| Host Ctry. Housing | .854 | .357 | - .0014 |

Note: IPED = Intentional Intercultural Pedagogy.

Table 4-5 does illustrate, however, a number of statistically significant correlations not related specifically to the impact of program factors on study abroad

outcomes. The strong positive correlation between DeltaDO and DeltaCD is discussed above. The data also indicate that study abroad programs in non-English-speaking countries are significantly more likely than their counterparts in Anglophone countries to feature pedagogy specifically intended to promote intercultural development. Not surprisingly, programs in non-Anglophone countries also are more likely to include classes requiring foreign language use in some form, and are less likely to have students participating in classes specifically intended for host country students.

The data do not suggest a clear relationship between the cultural distance of host countries from the United States and the outcomes of study abroad, at least as far as intercultural development change is concerned. Table 4-5 indicates that the correlation between studying in a non-Anglophone country and DeltaDO is positive, but the correlation is small and not statistically significant. The correlation with Cultural Disengagement change (DeltaCD), on the other hand, is negative, suggesting that studying in a non-Anglophone country might promote *disengagement* from one's culture of origin, but here too the correlation is small and not statistically significant.

A more detailed and in-depth analysis of the impact of study abroad destination on outcomes for students would be desirable, but this data set does not allow for particularly strong conclusions. Out of 108 experimental group members, 68 studied in Europe. Using DeltaDO as the dependent variable, values for those who studied in Anglophone countries were $n = 27$, $M = 2.48$, $SD = 10.04$; for those who studied in non-Anglophone countries the corresponding values were $n = 41$, $M = 4.98$, $SD = 12.31$. An independent samples *t*-test comparison of mean DeltaDO indicated no statistically

significant difference between these two groups: $t(66) = -.882$, $p = .381$, $d = .22$ (non-Anglophone minus Anglophone, a small effect size).

The remaining 40 experimental group members were distributed primarily among Africa (9), the Middle East and North Africa (9), Latin America (9) and Oceania (7). A mixed between-within subjects ANOVA, using these four regional groups, plus the Anglophone and non-Anglophone groups in Europe, in the between-groups categorical independent variable, found no significant interaction between regional study abroad destination and change in IDI Developmental Orientation score, pre- to post-test: $F(5, 96) = .714$[26], $p = .614$, $\omega_p^2 = 0$ (no effect). Study abroad region also did not have a statistically significant main effect: $F(5, 96) = 1.621$, $p = .162$, $\omega_p^2 = .028$ (i.e. accounting for 2.8% of variance).

## Conclusions

This study indicates a statistically significant, small-to-medium effect on intercultural development for one semester of study abroad, as opposed to remaining on one's home campus. The mindset of those who study abroad shifts toward interculturalism, but both pre-test and post-test means remain in the broad middle of the Intercultural Development Continuum (Minimization). This signals an approach to dealing with members of other cultures based on the search for and accentuation of common ground and shared traits. Participants who studied abroad also became statistically significantly less conflicted about their primary cultures, relative to those

[26] Using the Greenhouse-Geisser correction, because the assumption of sphericity was not met: Mauchly's test $p < .001$.

who remained on the home campus, based on IDI Cultural Disengagement scores (with medium effect size).

In this research, at least, the demographic characteristics and life experiences that students took with them into study were more influential on outcomes than the characteristics of their specific study abroad programs. Females, those who identified as members of more than one national culture, and those with at least one grandparent born and raised outside the United States were more apt than others to move toward a more intercultural mindset during study abroad. This study offers no support, on the other hand, to widely hypothesized connections between intercultural development change in study abroad and specific study abroad program characteristics.

# CHAPTER 5: INTERPRETATIONS, CONCLUSIONS, RECOMMENDATIONS

Study abroad by U.S. undergraduates is expected to play an important part in the internationalization of higher education, a goal increasingly reflected in the mission statements of U.S. colleges and universities (Forum on Education Abroad, 2014, April). At the same time, the study abroad field has come under increasing pressure to assess outcomes. Possible outcomes are multiple, ranging from the acquisition of specific information about a host country to the ability to enter and operate within another country's cultural mindset. Enhancing students' intercultural capabilities in fact receives considerable emphasis in standards for study abroad.

The research reported here suggests that caution is needed when claiming intercultural development benefits for study abroad. The data indicate that a semester of study abroad does have an impact on participants, promoting a modestly more intercultural mindset, as measured by the Intercultural Development Inventory (IDI). Personal characteristics and experiences students bring with them into study abroad can have a significant impact on outcomes. (Demographic characteristics, such as gender and cultural identity, appear to outweigh life experience factors, such as time spent abroad or where students were raised.) The data do not confirm, on the other hand, the impact of specific characteristics of study abroad programs, which has been a major focus of attention in recent years.

## Conclusions in Context

The *firs*t of the three main research questions asked: Is a semester of study abroad associated with more significant pre- to post-test change in scores on the Intercultural Development Inventory (IDI) than a semester of study at one's home institution?

The answer is yes. As discussed in Chapter 4, participants who studied abroad (experimental group) showed a mean change in IDI Developmental Orientation score, pre- to post-test, that was statistically significantly more positive, with a small-to-medium effect size, than the score change for students who remained on their home campus for one semester (control group).[27] (Higher scores indicate a more intercultural mindset.) Study abroad also was associated with a statistically significant reduction in cultural disengagement for the experimental group relative to the control group, with a medium effect size.

These results confirm the relative research hypothesis, based primarily on previous study abroad research literature reporting IDI scores as the dependent variables. The most apt standard of comparison is the Georgetown Consortium Project (Vande Berg, Connor-Linton, & Paige, 2009), which also found a statistically significant difference in pre- to post-test IDI overall scores when comparing study abroad and control groups. As in the study reported here, those who studied abroad had higher scores, while control group scores were very slightly negative, essentially flat. The mean IDI scores for both experimental and control groups were somewhat higher in the Georgetown study, both pre- and post-test, but the net difference in score change (experimental group mean change minus control group mean change) was only 2.44 points, compared to 4.65 in the research reported here. Large sample size (almost 1300) provided great statistical sensitivity for the Georgetown study, facilitating a finding of statistically significant differences, but the net effect size for the Georgetown study was $d = .16$, small based on Cohen's rule of thumb. The research presented here found

[27] In fact, the control group mean score declined slightly, pre- to post-test.

$d$ = .38, a small-to-medium effect. Still, the outcomes regarding overall impact of study abroad are reasonably consistent. The Georgetown study employed IDI v2 (introduced in 2003) rather than the 2010 IDI v3 used here, but, according to the instrument's co-author Mitchell Hammer, the overall scores on the two versions are completely comparable.[28]

Other IDI-based research offers similar conclusions regarding the impact of study abroad. Rexeisen et al. (2008) tested the one-time impact of a semester-long program in London on a sample of 54 students, finding a statistically significant increase of 5.0 points on the IDI v2 composite score, with effect size $d$ = .32. (A result quite close to that reported here.) Anderson et al. (2006), looking at the impact of a month-long program on 16 students, earlier had found a statistically significant ($\alpha$ = .10) increase of over 4.2 points on the IDI composite scale. In neither study, however, did the authors employ a control group. Anderson and Leighton (2011), on the other hand, did employ a control group, finding statistically significant differences in IDI pre- to post-test score changes between students who studied abroad for a semester and others who remained on their home campus.

It is striking, however, that researchers often stop with findings of statistical significance. The authors of the referenced articles did not themselves derive the effect sizes presented in the preceding two paragraphs. Authors also often do not discuss whether the IDI score changes they find translate into shifts between levels in the Intercultural Development Continuum, on which the instrument is based. The mean IDI score changes reported here frankly were unlikely to move a participant from one level to another. The overwhelming majority of the study abroad participants remained at the

[28] Personal communication with the author, July 22, 2015.

same level pre- to post-test, primarily the middle of the road Minimization (of difference) level. Simply put, a statistically significant IDI score difference in this case does not imply a shift from one way of understanding and addressing cultural difference (as defined in the IDI) to another.

The research reported here also points out that the study abroad group experienced *reduced* cultural disengagement relative to the control group: statistically significant at the $\alpha = .01$ level, with a medium effect size. It is not possible to compare these outcomes with those in other IDI-based research discussed here, since the Cultural Disengagement score was introduced in IDI v3, and the other studies employed an earlier version of the instrument.

The combination of a more intercultural mindset with a less conflicted attitude toward one's own culture of origin does resonate, in a sense, with the findings in Jones (2014). Using a large sample, including 571 American study abroad students, and an ad hoc instrument incorporating elements from the World Values Survey and the International Social Survey program, she found that cross-border contact lowered threat perceptions, but at the same time heightened nationalism. On this basis, Jones posits a "feeling of 'enlightened nationalism' and appreciation for difference" emerging from study abroad.

The *second* of the three main research questions asked: Are a series of personal characteristics and background experiences of participating students significantly associated with different IDI outcomes for students studying abroad and at their home institution? Some of the variables did prove to be statistically significant, while others

did not. This confirms the relative research hypothesis, that at least some personal characteristics would prove significant.

The impact of gender on study abroad outcomes is of particular interest. In this research, females were more likely than males to develop more intercultural mindsets during study abroad. The interaction effect between gender and group (experimental or control) was statistically significant at the $\alpha = .10$ level, with a medium-to-large effect size.

Vande Berg, Connor-Linton, and Paige (2009) also found that female gender was associated with increased IDI scores pre-to post-test in the study abroad group, while male gender was associated with decreased scores in the study abroad group. Indeed, in her secondary analysis of the Georgetown data, Nichols (2011) found that only female gender, of all the variables employed in the study, was a significant predictor of positive IDI score change. Rexeisen et al. (2008), on the other hand, found that only men showed significant pre- to post-test score increases over a semester, although women consistently scored higher on Overall Development (the predecessor to Developmental Orientation in IDI v3). Rexeisen (2012-2013) later reported a decreased advantage in IDI scores for women over men following a semester of study in London. A study of 52 students in the Westmont in Mexico program found a higher increase in IDI score for men than for women (Paige & Vande Berg, 2012).

Pedersen (2010) used the IDI and analysis of variance to compare three groups: a control group, a study abroad group that took a year-long course including intercultural effectiveness pedagogy, and a study abroad group in the same program, but not enrolled in the intercultural effectiveness course. Gender was among the variables she also tested,

but found no interaction effect between group and gender. Salisbury, An, and Pascarella (2013) also found no statistically significant effect for gender in intercultural competence change, employing a different instrument, the Miville-Guzman Universality-Diversity Scale, and looking at students over a longer time period than in the research reported here. The last word remains to be said on the controversial issue of gender's impact on intercultural development in study abroad.

The research reported here also finds statistically significant interaction effects for study abroad with two variables intended to capture participants' cultural identity and intercultural experience. The positive effect on IDI score change in study abroad of having at least one grandparent who was born and raised outside the United States was especially marked: significant at the $\alpha = .01$ level and with a large effect size. Students who identified as belonging to more than one national culture also experienced a positive interaction effect, significant at the $\alpha = .10$ level and with a medium-to-large effect size.

It is not possible to compare these outcomes with anything in the literature, since no other published work apparently relates multicultural identity and family background to study abroad outcomes. Perhaps the most useful standard for comparison comes from Salisbury, An, and Pascarella (2013), who found that race, admittedly not the same as cultural identity, did *not* have a statistically significant impact on change in students' intercultural competence during college. On the other hand, students who reported having "diverse experiences and interactions," a category including conversations with students of a different race or ethnicity from one's own, and participation in racial or cultural awareness workshops, were significantly more likely than others to increase their intercultural competence. This is not the same, of course, as having intercultural

experiences within one's own family or negotiating between two or more cultural identities, but does suggest it is worth looking for a nexus between cultural identity/experience and the propensity to acquire additional intercultural competence.

Research on sociocultural adaptation of Japanese, Malaysian, and Singaporean students in New Zealand, and of New Zealanders serving abroad in a Peace Corps-like context suggests that members of multicultural and cosmopolitan societies, e.g. Singapore, may be more adaptable in cross-cultural situations than members of more homogeneous societies (Ward & Kennedy, 1999). Perhaps this can be extended to people who perceive themselves as multicultural or who have had to deal with cross-cultural situations within their own families.

The research reported here also identifies three personal characteristics with positive interactions with study abroad IDI score change that do not register as statistically significant, but also present potentially noteworthy effect sizes: self-reported membership in an ethnic minority; self-assessed ability to communicate effectively in a language other than English; having spent more than three months abroad before participating in the study. The literature, however, to some extent supports the findings of statistical non-significance.

Salisbury, An, and Pascarella (2013), as noted above, found race to be non-significant, although admittedly racial and ethnic minority status is not exactly the same thing. While they did not employ the IDI, Savicki, Arrúe, and Binder (2012-2013) found that prior knowledge of the host country language *did not* facilitate intercultural contact for study abroad students, was not associated with better study abroad outcomes for affect and cognition, and did not allow students to fit in better with the host culture. This might

be taken to support the finding here that self-assessed ability to interact effectively in a language other than English was not significantly associated with intercultural development change in study abroad. The Georgetown study (Vande Berg, Connor-Linton, & Paige, 2009) did not consider language skill, but did find that prior language study was significantly associated with IDI score change differences for those studying abroad, with the positive effect increasing as the length of prior language study increased. But the positive impact on IDI score change for those studying abroad was only significant when participants had studied language for five or more semesters (including high school). The finding here that having the equivalent of a year or more of college-level language study did not make experimental group members more likely than control group members to register pre- to post-test IDI score change over a semester (see Chapter 4) seems broadly consistent with the Georgetown finding.

With respect to prior experience abroad, the Georgetown study found that only those students with less than one month of prior study abroad experienced statistically significant increases in IDI scores during study abroad. Pedersen (2010) in fact found that having no previous travel experience was associated with dramatically greater relative IDI score increases for students who also were enrolled in a course intended to promote intercultural skills. This is similar to the findings in McKeown (2009) regarding study abroad students' *intellectual* development. The literature, in other words, broadly speaking supports the finding here that having three months of prior international experience does not have a statistically significant influence on IDI score change.

The research reported here and the Georgetown study (Vande Berg, Connor-Linton, and Paige, 2009) differ with respect to the impact of academic majors. The latter

found that students majoring in the humanities, social sciences, or foreign languages posted statistically significant increases in IDI score pre- to post-test when studying abroad, while the former found no such impact. Salisbury, An, and Pascarella (2013), on the other hand, found that having a major in the humanities, social sciences, or fine arts did not have a statistically significant impact on changes in students' intercultural competence over time. Sutton and Rubin (2004), similarly found that academic major did not impact on study abroad outcomes. The three studies are not fully comparable, however, since the researchers used different instruments.

Note that this discussion of the impact of students' personal characteristics on IDI outcomes only addresses Developmental Orientation scores. None of the personal characteristics tested here had statistically significant interactions with experimental/control group difference in association with Cultural Disengagement scores.

The *third* main research question asked: For those studying abroad, are a series of study abroad program characteristics significantly associated with pre- to post-test differences in intercultural development scores? Here, the relative research hypothesis, i.e. that at least some program characteristics variables would prove significant, was rejected, since *none* of the program characteristics under consideration had a statistically significant association with change in IDI scores.

The finding of non-significance for intentional intercultural pedagogy is perhaps most striking, given the strong focus in the recent literature on the need for interventions by study abroad professionals to ensure that students reap the intercultural development benefits of study abroad. In a study fairly similar to that reported here, Pedersen (2010) found that, over an academic year, study abroad students experiencing pedagogy intended

to promote intercultural skills had significantly greater IDI score increases than students who were not enrolled in a comparable course, or members of a U.S.-based control group. (She did not find interactions, on the other hand, between group and other program-related elements, including involvement in work and extra-curricular activity abroad, second language use/travel, journaling and home stay.)

A number of other studies, often the work of prominent scholar-practitioners, have found significant increases in IDI scores for students in study abroad programs that include interventions intended to promote intercultural learning and development (Paige & Vande Berg, 2012). The Georgetown study (Vande Berg, Connor-Linton, & Paige, 2009) suggests a positive role for intercultural mentoring, as do studies of the Westmont in Mexico program (comparing outcomes of study abroad featuring and not featuring interventions) and of the University of Pacific program, comparing study abroad participants and a control group of randomly selected students (Paige & Vande Berg, 2012). Engle and Engle (2004) also suggest that intentional intercultural pedagogy does promote increases in IDI scores, but without employing group comparisons. They administered the IDI pre- and post-test to 187 participants in the semester-long study abroad program at the American University Center of Provence, which practices pedagogy intended to promote intercultural development and requires that students have a good knowledge of French before arriving. Students increased their IDI scores by an average of 33% of the maximum possible gain. Engle and Engle attribute these gains to "authentic contact with the host culture . . . and skillful mentoring which guides . . . the experiential learning process" (p. 232). This strikingly large gain may be attributable to the especially focused and selective nature of the AUCP program.

On the other hand, the University of Minnesota's Maximizing Study Abroad program, conducted between 2002 and 2005, used a true experimental design, dividing students studying abroad for three months into two groups: an experimental group receiving an online intervention, and a control group that did not. While IDI scores increased significantly for both groups, there was no significant difference between the groups in IDI score change (Paige & Vande Berg, 2012).

The finding here that immersion in the host-country educational system does not have a significant association with gains in intercultural development is consistent with the Georgetown Consortium Project (Vande Berg, Connor-Linton, & Paige, 2009) and the abundant other literature stressing that immersion in itself does not result in intercultural development change, absent intentional intercultural pedagogy (Paige & Vande Berg, 2012). On the other hand, the Georgetown study, unlike the research reported here, found significant association of content courses and instruction in the target language with IDI score increases. The Georgetown study also found that living with fellow U.S. students was associated with statistically significant increases in IDI scores, with a small-to-medium effect size, while living with host country students had a small effect. The study reported here considered only possible effects of living primarily with *host country* nationals, but found none.

As noted in Chapter 2, the literature assessing the impact of study abroad program location on student outcomes is surprisingly limited, and none employs the IDI as a measure. In any case, the conclusions here run counter to those of Douglas and Jones-Rikkers (2001), who "found partial support for the . . . hypothesis [that] the greater the

cultural difference between a student's point of origin and host site, the greater the increase in worldmindedness" (p. 63).

Regrettably, the number of students going abroad for an entire academic year who volunteered to participate in the research was too small to allow for valid comparisons with the overwhelming majority of participants who went abroad for only one semester. (The former completed the post-test IDI after their first semester abroad.) Attempts to recruit participants among short-term study abroad participants failed. Hence it was not possible to address the impact on intercultural development of program duration, identified as a significant factor by Medina-López-Portillo (2004) and Engle and Engle (2003) among others.

In sum, this study engages constructively with the literature that is most similar in design, methodology, and focus, providing support for some previous findings, while challenging others. The finding of limited gains in intercultural development for study abroad participants, relative to a control group, really confirms previous research, more than challenging it. But this study also identifies previously unexplored factors associated with gains in intercultural development for those studying abroad, i.e. self-declared multicultural identity and having a grandparent who was born and raised outside the United States. The study also contributes to the vigorous debate over the role of gender in conditioning study abroad experiences. The finding of non-significance, on the other hand, for all the study abroad program variables poses some challenges to the existing literature, especially with respect to the role of intentional intercultural pedagogy in determining study abroad outcomes.

## Implications for Theory

With respect to *theory*, most specifically Mezirow's transformative learning theory, the rather modest increases in IDI Developmental Orientation scores for those who study abroad, as opposed to remaining on their home campus, and the fact that the median score for those who study abroad remains firmly within the Minimization range of the Intercultural Development Continuum, suggest that, *on average*, study abroad is not the transformative learning experience that study abroad leaders and participants often expect, or at least hope for. This argues for caution in claiming reliably transformative effects for study abroad, and perhaps in framing study abroad research using Mezirow's construct.

This research indicates we cannot simply assume that the presumed disruptive effects of study abroad, the degree to which it puts students face to face with realities different from their usual ones, are sure predictors of the intercultural development impact of the experience. Intellectually, transformative learning theory makes sense, but, in this case at least, putatively disruptive factors such as cultural distance between one's study abroad country and the U.S., experiencing different systems of teaching and learning, or living with host country nationals were not associated with change in ways of understanding and addressing cultural difference.

The gender and cultural identity differences in study abroad outcomes, on the other hand, may resonate with studies that suggest such differences can have an impact on learning and development. We tend to see biculturalism or multiculturalism, hardly new phenomena in truth, as *outcomes* of migration, globalization, and travel (Nguyen & Benet-Martínez, 2007), and understandably focus on the acculturation of bicultural

individuals in the countries in which they reside (Nguyen and Benet-Martinez, 2013). How such identity impacts on ways of dealing with third cultures seems largely unexplored. Research shows, however, that "bicultural individuals move between their two cultural orientations by engaging in cultural frame switching (i.e. adapting and performing behaviors in response to the cultural context)" (Nguyen & Benet-Martínez, 2007, p. 103). This certainly sounds similar to intercultural competence, and is reminiscent of the description of the Adaptation stage of the Intercultural Development Continuum, the most intercultural one. It makes sense that the ability to switch cultural frames would allow bicultural individuals to interact more effectively in a third culture than someone who is not adept at frame switching.

The literature on gender differences is vast. With respect to learning, the 1986 work by Belenky, Clinchy, Goldberger, and Tarule, *Women's Ways of Knowing: The Development of Self, Voice, and Mind* used a series of findings that were "gender related but not gender specific" (Love, 1999, p. 17) to flag things that were missing from major developmental theories, and opened up a discussion that continues to this day. Broadly speaking, social science characterizations of male/female differences suggest that, due to social conditioning, women are likely to be less assertive and more cooperatively minded than men. Across cultures, women are prone to characterize themselves as agreeable, warm, and open to feelings, while men describe themselves as assertive and open to ideas (Costa, Terracciano, & McCrae, 2001). Such factors may promote more constructive and less confrontational responses by women to cross-cultural situations, promoting greater receptivity to host cultures when studying abroad. Hence, a greater intercultural development shift for women studying abroad than for their male counterparts, as found

in this study, should not come as a surprise. Gender differences in student reactions to differences in gender norms from one country to another receive some attention in the literature, but this is really separate matter, and one recent study actually found that *both* male and female U.S. students studying in Australia paid little attention to differences in gender norms (Jessup-Anger, 2008).

This research is based on Bennett's Developmental Model of Intercultural Sensitivity (DMIS), which underpins the Intercultural Development Inventory. It is not designed, however, to test the validity of the DMIS in any way. That said, the distributions of IDI scores reported in chapters 3 and 4 suggest that, at least as operationalized by the IDI, Bennett's model can form a basis for study abroad research utilizing parametric statistics.

## Limitations

This study has a series of limitations that condition its implications for future research. For one thing, there are numerous stakeholders in study abroad, with a wide range of objectives. Change in participating students' ways of understanding and addressing cultural difference, or in their degree of disengagement from their culture of origin, may be worthy objectives, but these are only two possible measures of the impact of study abroad. Greater foreign language fluency, increased familiarity with societies other than one's own, and enhanced "global citizenship" are among numerous other potential metrics of success for study abroad.

Even focusing solely on study abroad's impact on ways of thinking and acting across cultural lines, the Intercultural Development Inventory is only one means of attempting to measure this. Indeed, one study identified some 140 different instruments

employed in assessing intercultural communication competence (Ogden, 2015). In the scholarly literature, we find "intercultural" paired, not just with "development," but with quite a range of nouns that, while not entirely disparate, are also far from synonymous, e.g. "competence," "skills," and "sensitivity." Matsumoto and Hwang (2013) include the IDI in a review of ten instruments designed to assess what they term "cross-cultural competence." The titles of the other instruments, including the Cross-Cultural Sensitivity Scale, Cultural Intelligence Scale (CQ), the Intercultural Adjustment Potential Scale, Intercultural Communication Competence, Intercultural Sensitivity Inventory, and Intercultural Sensitivity Scale, suggest considerable diversity. IDI creator Mitchell Hammer in fact argues that grouping all ten instruments together "under one global statement of intended use and purpose" is "inappropriate" (2015, August 20, p. 4).[29]

With respect to the study participants, all came from a single institution of higher education, albeit one strongly committed to study abroad, with explicitly high hopes for the impact of international experiences on students, and not dissimilar from other large private universities that are among the major sources of U.S. study abroad students. Participants in the study also were self-selecting, suggesting that they had at least some interest in issues of intercultural development. The normal distribution of IDI scores, however, and mean scores in the lower half of the Minimization range, suggest that the

[29] Hammer (2015, August 20) also points out a conflict of interest that may have vitiated the assessment of the ten different instruments. As the *Journal of Cross-Cultural Psychology* later clarified, Matsumoto had developed one of them, the Intercultural Adjustment Potential Scale (ICAPS). He was also founder and director of the company that marketed the ICAPS, and his co-author Hwang was an employee of that company.

participants did not come overwhelmingly from the ranks of those starting out with especially high (or low) intercultural development levels.

The reliance on self-reported data is another issue. At several points, this meant dealing with students' self-perceptions. There seems little reason to question students' self-identification as belonging to more than one national culture. It is a quintessentially subjective matter. On the other hand, students' perceptions of their ability to communicate effectively in a language other than English could prove wildly inaccurate if they were tested. The study design only allows for drawing some conclusions about the study abroad outcomes of those who *perceive* themselves as having a certain degree of language competence. That said, other studies, like this one, suggest that the link between pre-existing language competence and "successful" study abroad outcomes is less than entirely clear (Savicki, Arrúe, & Binder, 2013-2013).

One might also question whether participants' descriptions of their study abroad programs as practicing or not practicing intentional intercultural pedagogy are totally accurate, although there seems little reason for students to answer insincerely. The findings of intentional intercultural pedagogy's statistically significant positive correlations with study abroad in a non-Anglophone country and with use of a language other than English in coursework (see Chapter 4) were as expected, suggesting the participants were answering truthfully.

While analysis of the data does identify a number of statistically significant associations, with small-to-medium, medium, and even large effect sizes, bigger samples would have increased the sensitivity of the tests, i.e. the likelihood of findings of statistical significance. This research may have failed to identify some important effects

as statistically significant. In fact, as noted in Chapter 4, a number of associations with by no means negligible effect sizes did not come up as statistically significant. Also, while in some cases use of dichotomized independent variables appeared necessary to ensure an acceptable degree of statistical power, it also created a risk of oversimplification.

In addition, an optimal experimental design would have entailed a third administration of the IDI to all study participants, perhaps four to six months after they had completed the post-test IDI. Near-term increases in intercultural development scores can dissipate after students have returned to their home institutions. In this research, it makes sense to treat the modest intercultural development score increase for those studying abroad as probably a best-case scenario.

Finally, a quantitative study such as this cannot get at the *process* of change in intercultural development levels. It can identify trends or seemingly relevant factors, but not how they occur or operate in students' minds. The latter requires qualitative methodologies.

## Recommendations

Despite its limitations, this study offers some stimulus to further research, especially since it does not provide unqualified endorsement of the conclusions of any of the most closely comparable studies in the field. There remains no comprehensive theory of intercultural development in study abroad, but one can derive a theoretical proposition from this research that may merit further testing: *In study abroad, change in ways of understanding and addressing cultural difference is more a function of the personal characteristics and history that students bring with them into the experience than it is a function of specific characteristics of the study abroad programs in which they*

*participate.* This is intentionally provocative. Some who argue that certain highly intentional and targeted interventions are required for increases in IDI scores in study abroad may contest this line of argument. But, quite frankly, a good way to buttress the case for interventions, and for the impact of other program-related variables, would be precisely to confirm their impact while *controlling* for demographic and personal history characteristics. The original intention behind this study was to do precisely that, but the findings of non-significance for all the program-related variables made it senseless.

This study suggests the need for further research on the impact of gender and cultural identity on study abroad outcomes. Quantitative research on the former offers contradictory conclusions, and it would be useful to understand better, though qualitative research, just *how* gender influences (or does not influence) change in students' ways of understanding and addressing other cultures. The impact of cultural identity on outcomes, on the other hand, has been largely ignored, despite some interest in the influence of study abroad on participating students' cultural identities (Tian & Lowe, 2014). Rather than simply asking participants to identify as monocultural or multicultural, one could use more sophisticated and nuanced tools to assess the cultural identity of students, for example the Bicultural Identity Integration construct (Nguyen & Benet-Martínez, 2006), and relate this to study abroad outcomes. Qualitative approaches could help understand how having a complex cultural identity influences students' approaches to third (or fourth or fifth) cultures.

The fact that other personal and background characteristics examined here did not demonstrate statistically significant interactions with study abroad does not prove they are irrelevant. Rather than focusing only on obtaining larger sample sizes in future

studies, to make the statistical tests more sensitive, one could consider alternative ways of defining and operationalizing personal characteristics variables, or trying different instruments to assess the intercultural impact of study abroad. This study does not foreclose further research on the significance of what students bring with them into study abroad. Quite the contrary.

The same may be said regarding research on the intercultural development impact of study abroad program characteristics. This study buttresses previous indications that, for U.S. students, immersion in a host country educational institution does not promote intercultural development gains. But the failure to confirm previously reported significant associations between other program factors and intercultural development change does not prove that such associations do not exist. Further research is required, and here too it would make sense to focus not simply on the search for larger samples and more statistical sensitivity, but on assessing how best to define the independent variables, and on using additional research instruments and approaches, qualitative as well as quantitative.

Although one should avoid an obsession with large sample size, which inter alia risks identifying as statistically significant differences that are not in fact practically significant, there are still good reasons for seeking the support of educational institutions or study abroad providers to carry out comprehensive outcomes assessments on all their students who go abroad. Self-selecting study participants, as in this case, superficially may not seem very different from the overall student populations of which they are part. Still, volunteering for a study could indicate a deeper mindset capable of influencing outcomes. But it is likely that only a modest minority of colleges and universities will be

willing to implement comprehensive and intensive study abroad outcomes assessment. As noted in Chapter 2, the depth of institutions' commitment to assessment, as well as their approaches to it, vary quite dramatically.

Assume for a moment, however, that further assessment largely bears out the conclusions of this study, i.e. that the effect of study abroad on the important metric of intercultural development is small-to-moderate, albeit statistically significant, and that the demographic characteristics and personal experiences students bring with them are what really determine their study abroad outcomes, more than the characteristics of their study abroad programs. This will put higher education institutions and study abroad practitioners into something of a bind.

Indeed, this study suggests the need for a serious cost-benefits analysis of study abroad. The "complex calculus of cost has vexed the [study abroad] field," with no consensus emerging on how to deal with it (Hoffa & DePaul, 2010, p. 3). It seems that sending students abroad can have financial benefits for at least some U.S. colleges and universities. Based on historical data, Cressey and Stubbs (2010) found that study abroad fees, which were not far below U.S. private university prices until about 1980, had risen much less steeply, and were at that point very markedly below private university prices. Under such circumstances, private institutions stand to benefit from the differential between their home prices and study abroad fees, if they charge students the former and pay out the latter to study abroad providers, which is common practice (Heitman 2007-2008). In 2008 the parent of a recent Wheaton College graduate even filed suit against the institution for having charged at-home tuition for a less expensive study abroad program (Cressey & Stubbs, 2010). Also, while the common wisdom is that study

abroad raises costs for institutions, Heitman (2007-2008) argues that reduced costs from *not* having students on campus are significant, and in fact make study abroad a low-cost option for institutions. On the other hand, operating study abroad programs also has considerable costs for colleges and universities, e.g. staffing to monitor wide-ranging operations (Hoff & DePaul, 2010).

For students, in turn, study abroad has higher costs than spending the same time at their home institutions, factoring in travel and other expenses. For example, the cost to students for West Texas A&M's recent short-term faculty-led business study program in Denmark was $4100, covering airfare, accommodations, some meals, fees for field trips, ground transportation, health insurance, and tuition for one undergraduate course (currently $250/credit for out-of-state students), plus part of the overseas costs for faculty and staff (Womble, De'Armond, & Babb, 2014). The additional costs of course are more onerous for some students and families than for others, absent compensating mechanisms such as grants, and sensitivity to cost is probably a factor in under-representation of minority students in study abroad (Salisbury, Paulsen, & Pascarella, 2011; Stuart, 2007, November 1). In sum, for both institutions and students, study abroad entails significant questions regarding optimal use of limited resources.

On the benefits side, one might cite positive perceptions of study abroad among potential employers (Trooboff, Vande Berg, & Rayman, 2007-2008), but the benefits also should correspond to the worthwhile objectives for study abroad laid out in the field's key standard-setting documents (see Chapter 2), including notably enhanced intercultural competence. The fact that U.S. colleges and universities increasingly are looking at on-campus or local options for building students' intercultural competencies (Fischer, 2015,

August 12; Soria & Troisi, 2014) should help focus the minds of study abroad practitioners on visibly producing promised results.

It is fair to ask whether a small-to-medium positive effect on students' intercultural development, perhaps not even sustained after study abroad, is worth the cost to students and their families. The question seems particularly apt if most of the benefits seem to flow to students with certain personal characteristics and prior experiences, and the specific characteristics of study abroad programs do little to equalize results. True, there is evidence that certain study abroad programs, which can involve significant additional time and coursework both before and after going abroad, may result in quite significant intercultural development change. The University of the Pacific, for example, has provided cross-cultural training for study abroad participants for over 40 years, and reports very large increases (over 17 points) in scores on the Intercultural Development Inventory following a semester abroad (Bathurst and La Brack, 2012). The American University Center of Provence, a relatively small, selective program that practices highly intentional and intensive intercultural pedagogy, also reports impressive IDI score increases for participating students (Engle & Engle, 2012). There are other examples (Paige & Vande Berg, 2012), but such programs frankly seem to be exceptions, rather than the rule, and clearly require strong institutional commitment and significant investment (financial and otherwise) on the part of students. Is it feasible to generalize these practices to ensure broad access for students to programs that reliably maximize the potential benefits of study abroad?

Enthusiasm for study abroad at higher education institutions is perfectly understandable. Among other things, educational leaders expect study abroad to support

the overall internationalization goals that so many institutions have set for themselves in recent years. But such enthusiasm does not mean that study abroad is for everyone, and should not obscure the fiduciary responsibilities of higher education institutions toward students and their families.

It is a welcome thing, certainly, that colleges and universities are paying increasing attention to their fiduciary responsibilities for risk management in study abroad, as the program of the 2015 annual meeting of NAFSA: Association of International Educators[30] clearly indicated. But there is a broader ethical responsibility to provide and guide students toward educationally beneficial experiences, at home and potentially abroad. Properly balancing costs and benefits, taking into account the resources available to students and their families, is a dimension of that ethical responsibility.

Father James F. Keenan, SJ of Boston College (2015, p. 4) recently delivered, however, a stinging indictment of ethical malpractice (or more accurately "non-practice") by higher education institutions:

> Simply put, the American university . . . has not created a culture of ethical consciousness and accountability . . . and this is in part both because of the nature of the contemporary university and because it does not believe that it *needs* ethics.

[30] See https://www.eventscribe.com/2015/NAFSA/aaSearchByDay.asp?h=Full%20Schedule&BCFO=A|GP|MG|O|P|PF|PL|S|SP|W|X|CC|ES|NP.

Study abroad is just one element of a much larger picture, of course, but Keenan's call for a "culture of ethics for our universities today" (p. 7) concerns universities in all their dimensions and activities.

Research on study abroad outcomes has a necessary part to play in making ethically sound decisions about whether and how to promote international education experiences. Since many study abroad researchers are in fact practitioners, with a strong personal commitment to study abroad and a positive view of what it can provide, there is some risk that research will stray from detached analysis into advocacy, or at least give that appearance. The research presented above is intended as an even-handed, analytical approach to the complex task of assessing study abroad's benefits. Especially where it challenges prevailing views in the literature, it should provide food for thought, and perhaps help promote institutional policies regarding study abroad that incorporate a significant ethical perspective.

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