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EDUCATION ABROAD AND THE MAKING OF GLOBAL CITIZENS: ASSESSING LEARNING OUTCOMES OF COURSE-EMBEDDED, FACULTY-LED INTERNATIONAL PROGRAMMING

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ABSTRACT

This study builds on education abroad, global citizenship and academic development literatures by assessing the extent to which embedding brief international travel experiences into residentially-taught courses enhances academic development and promotes global citizenship. Such faculty-led, education abroad programs are referred to as *embedded programs*. Grounded in Transformative Learning Theory, the study addressed two primary research questions: 1.) to what extent does participation in embedded education abroad programming mediate changes in students' global citizenship, and thereby, social responsibility, global competence and global civic engagement; and, 2.) to what extent does participation in embedded education abroad programming enhance academic development, specifically with regard to academic self-concept and academic self-efficacy? A quasi-experimental study utilizing a nonequivalent control group design was employed to address these questions. Statistically reliable and valid scales were developed to measure academic development and global citizenship. The results show that the embedded and match courses varied with regard to their overall mean scores for global citizenship and academic development and in the pattern with which they change over time. Students in the embedded courses had significantly higher pre-test and post-test mean scores for both global citizenship and academic development. Both samples showed positive increases in global citizenship over time, but only the students in the match courses showed significant change. Neither sample showed overall positive change toward academic development, but students in the embedded courses did show increases in academic self-efficacy.

Additionally, the study scrutinized widely-held assumptions of the traditional education abroad student profile by more accurately accounting for previously underrepresented or unacknowledged populations. In particular, the study focused on the extent to which financial need, first-generation status, and heritage impact education abroad choice and in what ways these and others populations participate in education abroad programming. To do so, a comprehensive, four-year enrollment analysis of all degree-seeking Pennsylvania State University students who studied abroad in academic years 2005/06, 2006/07, 2007/08, and 2008/09 was conducted. The findings show that education abroad program type does in fact appeal differently to particular student populations. Males, minorities, first-generation, non-traditional students, and those with greater financial need are disproportionately represented in embedded programs.

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PREFACE

This dissertation study originates in part from a funded research project entitled, "Embedded Education Abroad Faculty Toolkit: Developing and Implementing Course-Embedded Faculty-led International Programs." Dr. Duarte Morais, associate professor and director of the Department of Recreation, Park and Tourism Management's Tourism Research Lab of The Pennsylvania State University (Penn State) managed the project. Co-researchers included Dr. Christine Buzinde and Mr. Anthony C. Ogden. This project involved the collaboration of a number of supportive faculty and staff from five Penn State campuses: Abington, Altoona, DuBois, Erie-Behrend, and University Park.

The project was funded by the Penn State Schreyer Institute for Teaching Excellence through a 2008-2009 Teaching Support Grant, an institutional grant designed to give faculty, departments, and/or campuses the personnel or financial support needed to enhance courses, develop different ways to assess student learning, assess the quality of degree-granting programs, and implement new teaching strategies. The project received additional funding and administrative support from the University Office of Global Programs at Penn State.

The Faculty Toolkit is available online at www.global.psu.edu.

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CHAPTER ONE: INTRODUCTION

I INTRODUCTION

In recent years, education abroad has moved from the margins toward the center of the undergraduate curriculum. Once the purview of only a small number of academic departments, international education is increasingly being acknowledged and integrated into curricula across all disciplines (Braskamp, 2008). During 2006/07, nation-wide student education abroad participation increased by 8% for a record total of 241,791 (IIE, 2008). This marks a decade of unprecedented growth in the number of students receiving academic credit for their international experiences, with an increase of close to 150%, from under 100,000 in 1996/97 to nearly a quarter of a million in 2006/07. Joining in the chorus to promote education abroad is the federal government. In addition to funding national scholarship schemes to support education abroad, such as the Gilman and Boren scholarships, Congress is currently vetting *The Senator Paul Simon Study Abroad Foundation Act*, with a goal of no less than one million undergraduates studying abroad annually for credit within ten years of enactment.

This national and institutional momentum to greatly expand education abroad enrollment has led to a shift away from the traditional junior year abroad experience in recent years (Hoffa, 2007; Obst, Bhandari, & Witherell, 2007). Enrollment trends show favor toward short-term programs, which are expected to remain a primary growth area for the foreseeable future (Gutierrez, Auerbach, & Bhandari, 2009). In fact, short-term programs already enroll the largest proportion of U.S. students studying abroad. Currently only about 40% of U.S. undergraduates studying abroad participate in semester-length programs, while 55% now choose short-term programs. Short-term programs include summer, January, and any program up to 8 weeks in duration (IIE, 2008). Only 5% of students spend a full academic year abroad.

One of the largest growth areas in education abroad is short-term programs in which faculty members from the home campus accompany students abroad for discipline-specific study (Green, Luu, & Burris, 2008; IIE, 2008). This particular program type embeds an international excursion within an otherwise residential course (Gutierrez, Auerbach, & Bhandari, 2009). Most commonly, the international travel component of the course takes place during a mid-semester break or after the end of the on-campus term and is just a week or two long (Peterson et al., 2007). These faculty-led programs are most often referred to as *embedded programs*, or those "international undergraduate

programs that include a brief experience abroad as a minor component of a course for which the substantive content is provided within the United States" (The Pennsylvania State University Office of Global Programs, n.d.).

The popularity of embedded programs may be due in part to the greater prioritization and commitment within U.S. higher education to internationalize the undergraduate curriculum. In its 2008 edition of *Mapping Internationalization on U.S. Campuses*, the American Council on Education (ACE) reported that 40% of U.S. institutions now mention internationalization in their mission statements, include it in their strategic plans, and are formally assessing their internationalization efforts (Green, Luu, & Burris, 2008). The report goes on to explain that institutions increasingly look to their faculty as the key drivers of campus internationalization (Green, Luu, & Burris, 2008). As such, institutions are investing in faculty travel to teach, conduct research, and lead students on education abroad programs. In fact, 58% of institutions provide support to faculty leading education abroad programs, which is a considerable increase over the 46% reported in the previous 2001 edition of the ACE report (Green, Luu, & Burris, 2008). The level of support increases to 87% among doctorate-granting institutions (Green, Luu, & Burris, 2008). The report concludes by stating this growing support for faculty involvement in education abroad signals a strategic investment in internationalization and a commitment to those whose work will ultimately internationalize the undergraduate curriculum (Green, Luu, & Burris, 2008).

With this push to internationalize the undergraduate experience, education abroad has become viewed as an effective way to enhance student academic development and as a pathway to empower students to become responsible global citizens (Brown, 2006; Hunter, White, & Godbey, 2006; Lutterman-Aguilar & Gingerich, 2002). Not surprisingly, embedded programs in particular have emerged as an inexpensive way for institutions to engage faculty in internationalizing the undergraduate curriculum and provide students with academically engaging and culturally enriching international experiences (Green, Luu, & Burris, 2008). As a result, faculty are increasingly being encouraged to embed brief international travel experiences into their residentially-taught courses to effectively leverage the international scope of the course content, to provide students with real-world learning opportunities, and to foster meaningful intellectual and intercultural experiences for their students (Gutierrez, Auerbach, & Bhandari, 2009).

In spite of this level of institutional prioritization of embedded education abroad programs, enrollment data is not being systematically collected on a national scale in such a way as to differentiate this particular type of short-term programming. As such, only limited information is

available to assess its rate of expansion or obtain demographic information on who actually participates in these embedded programs. There is also a surprising lack of scholarly research to provide a solid foundation to understand how and to what extent integrating international experiences into residential courses enhances student learning and leads to gains in global citizenship. While there is abundant anecdotal evidence to suggest these experiences are transformative, it cannot be stated unequivocally that embedded programs lead to measurable gains in global citizenship and academic development.

Thus, this study contributes to this discussion by pursuing an institution-specific study at The Pennsylvania State University (Penn State) and its multi-campus network of faculty teaching embedded education abroad courses. The study relies on faculty involvement, industry best practices, and existing research to assess the extent to which embedding brief international travel experiences into residentially-taught courses results in significantly greater student learning outcomes. The study employs a quasi-experimental design featuring the inclusion of treatment and match courses, a methodology seldom employed in education abroad outcomes assessment research. Because there are no widely accepted instruments to reliably measure the extent to which international educational experiences enhance academic development and lead to gains in global citizenship (Paige & Stallman, 2007), statistically reliable and valid scales were developed to be used expressly for education abroad outcomes assessment. This dissertation study includes a comprehensive—and much-needed—four-year enrollment analysis to better understand the education abroad student profile. The analysis supplements national datasets by demonstrating the extent to which traditionally underrepresented populations participate in education abroad programming and how participation has varied over time and by program type.

II BACKGROUND OF EDUCATION ABROAD OUTCOMES RESEARCH

Research on education abroad emerged during the 1950s, and by the end of the 1970s, a respectable literature base and focus had begun to form (Chao, 2001; Comp, 2005; Weaver, 1989). Over the years, education abroad outcomes assessment research has grown increasingly complex and sophisticated (Bolen, 2007). While early research sought to simply demonstrate the acquisition of knowledge or skills while abroad, recent research explores student learning in domains such as intercultural competency development, global awareness, and disciplinary-specific learning (Dolby, 2007; Vande Berg, 2003). To a great extent, however, studies in education abroad have been mostly non-empirical and based on student self-assessments. Much of the existing research concentrates on

specific programs and involves small numbers of students, and most do not compare the experiences of students abroad with those who remain on campus during the same time period, thereby making it difficult to claim the benefits of education abroad with credibility (Chieffo & Griffiths, 2003). As the field of education abroad research matures, it bears responsibility to provide data, facts, and analyses to document the value of its endeavors to decision makers within the higher education community.

Several prominent and on-going studies have begun to challenge long-held assumptions about the value and impact of education abroad on student learning and development in recent years. Most notable of these is *The Georgetown University Consortium Project* (Vande Berg, et al., 2004). This inter-institutional collaboration employed Engle and Engle's (2003; 2004) classification system of education abroad to focus on student learning within three domains: second-language proficiency, intercultural competency, and disciplinary learning. The project used the Simulated Oral Proficiency Interview (SOPI) and the Intercultural Development Inventory (IDI) as pre-/post-test measures of student learning. The study supports findings that have significant implications for education abroad policy and practice (Vande Berg, Connor-Linton, & Paige, 2009). For example, students enrolled in education abroad programs, on average, show greater intercultural learning gains and oral proficiency in the target languages. The study also reveals significant relationships between student learning outcomes and particular program features. No previous study has attempted to correlate outcomes in this way with key program and demographic variables.

Two noteworthy studies currently being conducted by the University System of Georgia (Sutton & Rubin, 2004) and Michigan State University (Ingraham & Peterson, 2004) also focus on the learning outcomes of participation in education abroad. Having collected data from more than 20,000 students thus far, the Georgia study is exploring the extent to which students acquire both curricular content knowledge and cognitive understanding while abroad, as compared to students who stay at home. The Michigan study is exploring the impact of education abroad not only on students but also on faculty, academic departments, and the institution as a whole. Both studies include self-assessment data collected through pre- and post-program surveys, post-program retrospective questionnaires, journal entries, and student focus groups.

Thought to be the most comprehensive and in-depth study of the long-term impact of education abroad to date, *Beyond Immediate Impact: Study Abroad for Global Engagement (*SAGE*)* sought to examine the long-term personal, professional, and social capital outcomes associated with study abroad experiences during the college years (Paige, Stallman, & Josić, 2008). Based at the University

of Minnesota, the SAGE project invited 22 colleges and universities representing a variety of institutional types to participate. The study emphasized the ways in which students become globally engaged during their lives after studying abroad and the degree to which their contributions can be attributed to their study abroad experience. Global engagement, as conceptualized by SAGE, is expressed by "civic commitments in domestic and international arenas; knowledge production of print, artistic, online, and digital media; philanthropy in terms of volunteer time and monetary donations; social entrepreneurship, or organizations whose purpose and/or profits are to benefit the community, and the practice of voluntary simplicity in one's lifestyle" (Paige, Stallman, & Josić, 2008). Over 6,000 alumni who studied abroad from as far back as 50 years ago were surveyed and/or interviewed. Findings suggest program duration does not moderate the extent to which students become globally engaged during their lives after studying abroad (Fischer, 2009).

This study draws upon the insights gained from these studies and the larger body of literature on education abroad outcomes assessment. However, the study endeavors to overcome some common and often serious methodological and conceptual short-comings that undermine much of the existing research. Specifically, education abroad outcomes assessment research has often relied on student self-reports, or rather solicited statements of the impact the experience abroad has had with regard to explicit and pre-determined outcome variables (Singleton & Straits, 2005). This approach potentially exposes data to bias since participants may feel pressured to report socially desirable gains from their experiences abroad (Messick, 1979; Nunnally, 1978). Furthermore, major studies have done little or nothing to account for self-selection bias through the use of control groups (Dwyer, 2004; Rundstrom Williams, 2005). Students already interested in global affairs or those already engaging in civic-minded activities may be more likely to study abroad. Finally, existing outcomes research all too often suffers from conceptual limitations with regard to operational terminology (Peterson et al., 2007). For example, the development of mutual understanding and global awareness is an oft-stated goal of education abroad, but this is not synonymous with empowering and educating learners to become engaged global citizens (Dower & Williams, 2002).

This study builds upon the emerging, but often problematic, body of scholarly research to demonstrate the extent to which embedded education abroad experiences enhance student learning outcomes. In doing so, this study will significantly advance education abroad outcomes research and begin to answer a central question looming on the education abroad landscape: *To what extent does undergraduate, embedded education abroad programming promote academic development and individual gains in global citizenship?*

III PURPOSE

With internationalization now so explicitly enshrined in the mission statements of many U.S. universities and colleges, attention is turning to the role that education abroad can play to develop global citizens (Braskamp, 2008; Ehrlich, 2000; Green, Luu, & Burris, 2008; Holland & Meeropol, 2006; Langran, Langran, & Ozment, 2009). The integration of education abroad experiences into the undergraduate curriculum is widely assumed to be an effective way to guide students to see themselves as engaged global citizens with a sense of empowerment to work for political and social change (Brown, 2006; Hunter, White, & Godbey, 2006). Embedded programming is viewed as an important and successful way to engage faculty in internationalizing the undergraduate curriculum, to enhance discipline-specific learning through international field study and primary research, and to boost student academic development. The assumption is that participation in education abroad leads to greater student academic self-concept and self-efficacy (Praetzel, Curcio, & Dilorenzo, 1996). The growth of embedded programming is also said to attract greater numbers of students from groups that have otherwise been less likely to study abroad for a semester or full-year, whether for financial, academic, or personal reasons. These underrepresented groups include ethnic minorities, first-generation students, non-traditional students, students in fields with rigid and highly structured course requirements, community college students, student athletes, and males (Green, Luu, & Burris, 2008; Martinez, Ranjeet, & Marx, 2009). Although many such assumptions are widely acknowledged and accepted, these claims are more often based on anecdote than on documented, empirical evidence. There is very little outcomes assessment data available to clearly demonstrate that embedded programs appeal differently to traditionally underrepresented populations or confirm that participants demonstrate measurable gains in global citizenship and academic development.

Thus, the central purpose of this study is to test these assumptions, and to demonstrate the extent to which embedded education abroad experiences truly enhance academic development and promotes global citizenship. In doing so, the study provides much needed empirical evidence of the value of embedded education abroad programming, and by extension, the extent to which such experiences cultivate a more globally active and informed citizenry. For the purposes of this study, global citizenship is understood as a multi-dimensional construct that entails three interrelated dimensions: *social responsibility*, *global competence,* and *global civic engagement*. It is beyond the scope of this study to measure discipline-specific learning, therefore academic development will be broadly understood in relation to two interrelated dimensions: *academic self-concept* and *academic self-efficacy*.

The study also seeks to scrutinize widely held assumptions of the traditional education abroad

student profile by more accurately accounting for previously underrepresented or unacknowledged populations. In particular, the study investigates the extent to which financial need, first-generation status, and heritage impact education abroad choice and in the ways in which these and other populations participate in education abroad programming. Results should further challenge international educators and administrators alike to more purposefully and strategically promote education abroad in all its forms as a viable and essential component of the undergraduate experience.

IV RESEARCH QUESTIONS

The field of international education is moving forward to meet challenges for a data-driven, evidentiary-based articulation of the value of education abroad at a time of tremendous growth. This study extends these efforts by examining student learning outcomes associated with embedded education abroad programming. Specifically, the study demonstrates the extent to which embedded education abroad experiences truly enhance academic development and lead to measureable gains in global citizenship. In doing so, the study will contribute to education abroad outcomes assessment research and advance new scholarship to understand global citizenship and academic development within higher education. This study pursues the following questions:

1.) To what extent does participation in embedded education abroad programming mediate changes in students' global citizenship, and thereby social responsibility, global competence, and global civic engagement?
2.) To what extent does participation in embedded education abroad programming enhance academic development, specifically with regard to academic self-concept and academic self-efficacy?

Additionally, the study seeks to demonstrate the extent to which traditionally underrepresented populations participate in education abroad and how participation has varied over time and by program type. Further, student GPA data are analyzed to determine how academic performance varies with program participation. Cumulative GPAs earned prior, during, and after studying abroad are analyzed to determine how experience abroad impacts academic performance and to challenge claims of a "GPA benefit" associated with studying abroad (Clabby, 2008; Merva, 2003). For this reason, four supplemental key research questions guide this study:

1.) Does contemporary education abroad remain mostly an opportunity for white, middle-class, female students majoring in the social sciences?
2.) What enrollment trends in the education abroad population have manifested between the 2005/06 and the 2008/09 academic years?
3.) How does the student profile vary by education abroad program type?
4.) To what extent does education abroad impact academic performance, as indicated by cumulative grade point average (GPA)?

V STUDY JUSTIFICATION

Many in higher education welcome news that an increasing number of professors are reshaping their courses to integrate international travel experiences (Green, Luu, & Burris, 2008; Braskamp, 2008). Although there is an encouraging abundance of anecdotal evidence to suggest that these experiences are meaningful, there is little scholarly research that shows the extent to which integrating international travel experiences into residential instruction actually leads to measurable increases in student learning and global citizenship. Arguably, it is likely a false assumption to conclude some international experience is better than none, and that even a brief education abroad experience enhances student learning and development. This study scrutinizes this widespread assumption, and in doing so, strives to create a discussion within the profession on how to reframe course design and program implementation. This study aims to reframe the discussion around design and implementation to the extent that engaging in these types of educational experiences is grounded in intentionality and with clear and achievable learning objectives.

It is also important to better understand the student profile of those who participate in education abroad and to recognize emerging enrollment trends. Currently, no nation-wide data is being systematically collected or analyzed for embedded programs. Thus, the four-year, comprehensive enrollment analysis contributes an institutional profile of enrollment and programming trends over time. This is analysis will be useful to higher education administrators working hard to better understand this popular form of education abroad. A comprehensive understanding of enrollment data will be particularly valuable when developing student services programming, establishing institutional policy (i.e., student aid, institutional partnerships, etc.), strategic planning, making curricular decisions, and considering promotion and outreach strategies.

The contributions of the study to professional practice include 1.) the development and validation of pre-/post-test scales to measure global citizenship and academic development; and 2.) the completion of a comprehensive, four-year enrollment analysis of education abroad programming. Conceptual contributions to theory include 1.) the application of Transformative Learning Theory to education abroad outcomes research, and 2.) the understanding the extent to which embedded education abroad programming is a pathway toward a.) individual gains in global citizenship, and thereby social responsibility, global competence, and civic engagement; and b.) enhancing academic development, particularly academic self-concept and academic self-efficacy. Empirical contributions to education abroad outcomes research include 1.) utilizing a nonequivalent control group design with embedded and match courses; 2.) the use of pre-/post-test and analytical measures to account for self-selection bias. Contributions to higher education policy include 1.) demonstrating the importance of faculty involvement in institutional internationalization, and 2.) initiating a discussion on the impact of embedded education abroad on student learning outcomes.

VI DEFINTION OF TERMS

The field of education abroad has lacked a common language or operational terminology in outcomes research or a classification system to provide a shared way to think about and assess student learning (Bolen, 2007; Peterson et al., 2007). In 2004, the author and a small team of education abroad professionals initiated a project with support from the Forum on Education Abroad to develop definitions of terms central to the field of education abroad. The resulting *Education Abroad Glossary* has informed subsequent research in the areas of outcomes assessment, data collection and research, and with establishing standards of good practice (Peterson et al., 2008). Unless noted otherwise, the language and terminology used in this dissertation study closely adhere to this Glossary. A list of key terminology and slightly truncated definitions specifically related to the focus of this study include

1. *Embedded Study Abroad.* A short study abroad experience that forms an integral part of, or an optional add-on to, a course given on the home campus. Most commonly, the study abroad portion of the course takes place during a mid-term break or after the end of the on-campus term and is just a week or two long. The study abroad normally cannot overlap significantly with the dates of the on-campus term because participants are enrolled in other classes as well (Peterson et al., 2008).

2. *Education Abroad.* Education that occurs outside the participant's home country. In addition to study abroad, examples include such international experiences as internships, work, volunteering, and directed travel, so long as they are driven to a significant degree by learning goals (Peterson et al., 2008).
3. *Faculty-led Program.* A study abroad program directed by a faculty member (or members) from the home campus who also accompanies the students abroad (Peterson et al, 2008).
4. *Faculty Program Director.* A university faculty member appointed to lead an education abroad program for a limited period. The individual's on-campus roles may include advising, recruitment, orientation, admission, and advocacy. Faculty program directors may be called on to assume a range of important overseas roles including administrative, logistical, financial, academic, and advisory (Peterson et al., 2008).
5. *Globalization.* According to Dower and Williams (2002), globalization refers to "the economic, political and cultural process whereby individuals and corporate bodies increasingly perform actions which have impacts across/throughout the world, and perceive themselves as having identities, concerns and impacts which are global" (p. xxii). They state that the process of globalization has been going on over centuries, but it was only in the 1990s that the phenomenon came to dominate public consciousness.
6. *Heritage Seeking.* "Selecting a study abroad venue because of family background—national, religious, cultural or ethnic. Choosing a venue because of some level of familiarity or resonance with less emphasis on the difference" (Szekely, 1998).
7. *International Education.* A profession that facilitates and supports the migration of students and scholars across geopolitical borders. This may include, but is not limited to (on U.S. campuses), support for matriculating and exchange students from countries outside the United States, instruction in English as a second language, international student recruitment, assessment of non-U.S. higher education credentials, student services for postgraduate research students and fellows, facilitation of education abroad for U.S. students, and (outside the U.S.) support and services for visiting U.S. students (Peterson et al., 2008).
8. *Junior Year Abroad.* Term once used widely as nearly synonymous with Study Abroad. This was inaccurate for many institutions where study abroad for shorter periods of time was the norm, or where many students studied abroad in their sophomore or senior year. Because of the

decline of full-year study abroad, along with the diversification of class standing of study abroad participants, the term has gradually fallen out of favor (Peterson et al., 2008).

9. *Learning Outcomes*. The knowledge, skills, and abilities an individual student possesses and can demonstrate upon completion of a learning experience or sequence of learning experiences (e.g., course, degree, education abroad program). In the education abroad context, learning outcomes may include language acquisition, intercultural competence, discipline-specific knowledge, and research skills, etc (Peterson et al., 2008).
10. *Program Design*. The basic structure of an education abroad program. The design combines such considerations as duration, scheduling, level, phasing (e.g., a one-week orientation followed by 10 weeks of classroom study and a four-week internship), and a pedagogical model (e.g., the role of field study, the role of integrated university courses) (Peterson et al., 2008).
11. *Program Model*. A combination of characteristics that offer a shorthand description of an education abroad program. Examples: short-term, faculty-led study tour; summer intensive language program; geology field research program; integrated program in a Spanish-speaking university; student exchange program in business studies; work abroad program; internship program in environmental studies (Peterson et al, 2008).
12. *Program Provider*. An institution or organization that offers education abroad program services to students from a variety of institutions. A provider may be a college or university, a non-profit organization, a for-profit business, or a consortium (Peterson et al., 2008).
13. *Study Abroad*. Education abroad that results in progress toward an academic degree at a student's home institution. Although this most often means earning credit the home institution will accept, other goals include fulfillment of a language requirement or completion of a senior thesis. Optional overseas add-ons to on-campus courses do not qualify unless they carry additional credit. Ironically, this somewhat narrow meaning—which has become standard among international educators in the U.S.—excludes pursuit of a full academic degree at a foreign institution, which is the most common meaning of the term "study abroad" used in many other countries (Peterson et al., 2008).

VII OUTLINE OF CHAPTERS

This first chapter gave a brief introduction and overview of the study, stated its key research questions, and concisely discussed the purpose and justification of the study. It also presented a brief overview of the background and an assessment of the current state of education abroad outcomes

research to give context for this study. It also defined key terms used throughout the study.

Chapter 2 provides an in-depth overview of relevant research, specifically reviewing existing education abroad outcomes assessment literature with attention to short-term programming. The chapter also reviews important research related to global citizenship in the attempt to understand and operationalize the construct. Similarly, the chapter examines the research on academic development, particularly academic self-concept and academic self-efficacy, and situates them in relation to education abroad learning outcomes. Mezirow's Transformative Learning Theory is used to explain why and how embedding brief international experiences into residential courses should enhance student learning outcomes. Based on insights drawn from the literature, the chapter concludes with an illustration and discussion of the research model that underpins study.

In chapter 3, the methodology of the study is described in detail, beginning with a description of the quasi-experimental study design and then continuing with a description of the methodology employed to conduct the enrollment analysis. It explains the research design, population and sample, variables of interest, data collection procedures, and approaches to data analysis. The chapter also briefly outlines the limitations and delimitations of the study.

Chapter 4 describes the process of developing and refining the validity and reliability of global citizenship and academic development scales. The process followed the eight-step process proposed by DeVellis (1991) and includes exploratory and confirmatory factor analyses. Additionally, the chapter reports on findings from a series of three, small-group interviews utilizing *Nominal Group Technique* (Delbecq & VandeVen, 1971) to verify the scope of the global citizenship construct.

Chapters 5 and 6 present the findings of the study. First, chapter 5 provides a detailed reporting of the enrollment analysis and presents results in relation to the four key research questions that guided the analysis. Results are structured along four characteristic areas of enrollment: *demographics, academics, programmatic,* and *institutional.* Chapter 6 then presents the findings of the quasi-experimental study in which pre-/post-test results are compared between embedded and match courses. Results are analyzed along each dimension and sub-dimension of global citizenship and academic development.

Finally, chapter 7 presents an interpretation and discussion of the findings and their theoretical and practical implications. Recommendations for future research are proposed and briefly discussed. The appendix includes copies of the pre-test and post-test questionnaires and related documentation necessary to conduct this study.

CHAPTER TWO: LITERATURE REVIEW

I INTRODUCTION

This second chapter provides an overview of the relevant research, beginning with a brief discussion of the changing role of U.S. higher education and the ever-increasing momentum toward graduating global citizens. This is followed by an evaluation of education abroad outcomes assessment research and a review of short-term education abroad literature. Because of their importance to education abroad and higher education research, brief attention is given to reviewing moderating variables shown to be influential in driving student learning outcomes. This chapter discusses the important research that defines global citizenship and the theoretical background that informed the operationalization of the construct in addition to the existing research demonstrating global citizenship outcomes of education abroad programming. Similarly, research on academic development in higher education, especially academic self-concept and academic self-efficacy, is reviewed and discussed in relation to education abroad learning outcomes. Theoretical and applied research on student-faculty interaction explores the relationship between embedded education abroad programming and enhanced academic development. The study is positioned within *Transformative Learning Theory* (Mezirow, 1978, 1991, 1996, 2000), which offers a conceptual framework to explain why embedding international experiences into residential courses should enhance academic development and lead to gains in global citizenship. The chapter concludes with an illustration and discussion of the research model that has emerged from the literature and which underpins this study.

II HIGHER EDUCATION & GLOBAL CITIZENSHIP

A fundamental mission of higher education in the U.S. has long been to prepare students to serve as productive members of a democratic citizenry (Bok, 2006). Institutions of higher education have shared in the common purpose to prepare graduates to live and work successfully, as well as contribute meaningfully to the leadership and sustainability of the nation. Historically, U.S. colleges and universities have been viewed as instrumental social institutions to improve equality in society, socialize citizens, increase students' chances for upward social mobility, and cultivate interest in the general social welfare (Gumport, 2000; Stearns, 2009). U.S. colleges and university campuses have provided a context in which educators have prepared students to be effective citizens in a

democratic society (Gurin, Dey, Hurtado, & Gurin, 2002). However, the mission of higher education has begun to change (de Wit, 2002).

The world in which higher education functions is changing dramatically. In recent years, the ground has shifted for Americans in virtually every important sphere of life, from major changes occurring in the economy and political balances of power to an ever broadening emphasis on national security and environmental sustainability. The world is being dramatically reshaped by advanced communication and technological innovations, increased international labor mobility, greater emphasis on the market economy and trade liberalization, and the transition to a global knowledge society (Falk & Kanach, 2000; Knight, 2004). Because of these and related societal changes, today's graduates need to be intellectually resilient, interculturally competent, and prepared for a future of life-long learning. Understanding and effectively navigating other societies and cultures is no longer a matter of choice but has become essential for working and living successfully in a globalizing world.

In light of these changes, a wide array of voices from federal, state and local governments, institutions, associations, industry and independent observers have united to urge higher education to nurture a wide variety of global competencies in today's college and university students (Clinton, 2000; McRobbie, 2008). For example, in their 2007 report, *College Learning for the New Global Century*, the Association of American Colleges and Universities (AAC&U) explored emerging priorities for preparing students for 21st century realities and advanced a new framework for college student learning. The report laid out the essential learning outcomes and guiding principles that students need from higher learning, all of which have been calibrated with changing notions of citizenship and the challenges of a complex and interdependent world (AAC&U, 2007). In recent months, both the American Council on Education (ACE) and the Association of Public and Land-grant Universities (APLU) have each forewarned educators of the urgent need to prepare globally competent graduates. Although there have been many such calls since the end of World War II urging educators to develop global competencies among college and university students (Achterberg, 2002; Brustein, 2007; Hoffa, 2007; Klasek, 1992), momentum appears to only have coalesced in recent years, prompting a significant shift within U.S. higher education policy.

While the primary purpose of higher education may have once focused on the development of students' characters and their intellectual growth (Ehrlich, 2000), it is clear that U.S. higher education today has begun to transition into a new era, one in which institutions are responding to calls to prepare their students to engage competently in a globalizing and increasingly interdependent world

(Altbach & McGill Peterson, 1998; Bennett & Salonen, 2007; Cornwell & Stoddard, 2006; Nolan, 2009). More and more, institutions have begun to pursue approaches that further internationalize their campuses and the undergraduate curriculum (Brustein, 2007). In its 2008 report, *Mapping Internationalization on U.S. Campuses*, ACE reported that an increasing number of U.S. institutions now explicitly mention internationalization in their mission statements, include it in their strategic plans, and formally assess their internationalization efforts (Green, Luu, & Burris, 2008). The concept of *global citizenship* has prominently emerged in much of the language that is being used to prioritize the internationalization of higher education and the undergraduate experience. Although there is little agreement on how to define global citizenship or how to measure it as an outcome of higher education, many agree that producing global citizens has become central to the many goals of contemporary higher education (Langran, Langran, & Ozment, 2009). Thus, transforming U.S. colleges and universities into global institutions that educate for global citizenship has emerged as one of the leading demands of the 21st century (Belamy & Weinberg, 2006; Brustein, 2007; Stearns, 2009). The enduring question of what it means to be educated is effectively being rewritten to one which questions what it means to be educated in an era of globalization (Achterberg, 2002; Falk & Kanach, 2000; McCabe, 2001).

III EDUCATION ABROAD & OUTCOMES ASSESSMENT

The call to colleges and universities to educate today's students for global citizenship has come at a time when society has begun to critically reexamine the relative value of higher education. Spurred by rising costs, disappointing retention and graduation rates, and employer concerns that graduates do not have the knowledge and skills expected in the global workplace, many call for greater accountability and transparency in higher education (Fugate & Jefferson, 2001; Leveille, 2006; Ruben et al, 2008; Spellings, 2006). Higher education is increasingly being asked to justify its value, quality, and demonstrate that students are learning essential knowledge and skills. Therefore, institutions have begun to direct more attention to documenting practices that effectively maximize student learning. With this increasing attention to assessing student learning outcomes has come growing interest in understanding and documenting what students learn through education abroad programming (Bolen, 2997; Gray, Murdock, & Stebbins, 2002; Vande Berg, Connor-Linton, & Paige, 2009; Steinberg, 2007; Talburt & Stewart, 1999). The increasing popularity of undergraduate education abroad has intensified the need to document student learning outcomes.

U.S. education abroad enrollments have been steadily increasing since the mid-1990s, from under 100,000 in 1996/97 to nearly a quarter of a million in 2006/07 (IIE, 2008). With this decade of unprecedented growth, stakeholders have begun to take a greater interest in international education. Faculty members are increasingly asked to review international course syllabi and grant institutional credit for coursework undertaken abroad. The growing number of students leaving campus for a semester or academic year has forced institutions to review budget and staffing considerations. Asked to pay the ever-growing cost of education abroad, parents question the worth of such experiences. All in all, many have begun to seriously question the value-added claims of education abroad (Fry & Paige, 2001).

It is simply no longer enough to claim in this environment of greater accountability that education abroad is a good thing for students without offering specific evidence to support such assertions (Gray, Murdock, & Stebbins, 2002; Grünzweig & Rinehart, 2002; Hoffa & DePaul, 2010). International educators are being asked with greater frequency to supply evidence of student learning outcomes, but until recent years there has been very little outcomes assessment research beyond a smattering of studies looking at language proficiency and changes in attitudes and career goals (Kraft, Ballantine, & Garvey, 1994). Like others in higher education, international educators have to justify the value of their efforts, but they have been hindered by the general lack of valid and reliable data needed to respond to the rising barrage of questions. There were few organized efforts to support or enable outcomes assessment research in education abroad until the mid-1990s.

Research on education abroad began to emerge during the 1950s, and by the end of the 1970s, a respectable literature base and focus begun to form (Chao, 2001; Comp, 2005; Weaver, 1989). During the 1970s, 189 research studies had been published and the number increased to 675 by the 1990s. In the current decade, the number of published studies will likely exceed 1,000 (Comp et al, 2007). Launched in the mid-1990s, two leading journals now publish a major share of education abroad-related research. The arrival of *Frontiers: The Interdisciplinary Journal of Study Abroad* and *The Journal of Studies in International Education* are likely historic markers of the period during which U.S. education abroad began its shift to prioritize outcomes assessment research of student learning.

Because of the strong undercurrent in the 1990s within the professional education abroad community calling for expanded research on learning outcomes assessment and clearer standards of best practice, a small group of education abroad professionals began to put into place the basic foundation for what would become *The Forum on Education Abroad.* Officially founded in 2001, The Forum on Education Abroad (Forum) has since been designated a Standards Development

Organization (SDO) for education abroad and has become a prominent force driving education abroad outcomes research. Supported by an ever-expanding list of member institutions, the goals of the organization are 1.) to advocate standards of good practice; 2.) to promote excellence in curricular development and academic design; 3.) to encourage outcomes assessment and other research; 4.) to facilitate data collection; and 5.) to advocate for education abroad at all levels (Forum, 2010). Within its first year, the Forum launched a series of initiatives to support research in education abroad, including publishing *The Guide to Outcomes Assessment in Education Abroad*, an edited volume of tools for conducting outcomes assessment as a part of education abroad programming (Bolen, 2007). The publication is now widely regarded as an essential resource for institutions and organizations striving to meet the challenges of initiating and sustaining an outcomes assessment strategy for education abroad. The Association of International Education Administrators (AIEA) and NAFSA: Association of International Educators have also joined in this effort by identifying emerging research priorities and engaging international educators and scholars alike in knowledge development and dissemination (Deardorff, 2009).

Over the years, education abroad outcomes assessment research has grown increasingly complex and diverse (Bolen, 2007; Comp et al., 2007). Early research sought to demonstrate the acquisition of knowledge or skills while abroad (Sowa, 2002), with most focusing on skills associated with a single learning domain. In particular, many of these earlier studies focused on second-language acquisition (Brecht, Davidson, & Ginsberg, 1993; Segalowitz & Freed, 2004) and still, there is much research being done in this area (Jackson, 2008a; Kinginger, 2009). An early study in the field that remains a frequently cited resource on outcomes is *Study Abroad: The Experience of American Undergraduates* (Carlson, et al., 1990). The authors examined the type of student who studies abroad, changes that occur as a result of the experience, aspects of the individual that might affect outcomes, and the long-term effects of the experiences. The results showed students returning from abroad were more interested in international affairs, showed significant foreign language gains, and many laid plans to pursue internationally-oriented careers. This early study also acknowledged the influence of particular variables on student learning outcomes, such as the interaction students have with fellow Americans while abroad, their academic motivation prior to study abroad, the cultural similarity with the host country, etc. This may have been one of the first carefully constructed analyses to offer compelling evidence of the extent to which the demographics of the education abroad student population are not reflective of higher education enrollments (Pascarella & Terenzini, 2005).

Other research has explored student learning in domains such as intercultural sensitivity (Anderson et al., 2006; Paige et al., 2003; Rundstrom Williams, 2005), global awareness (Chieffo & Griffiths, 2004), identity development (Angulo, 2008; Dolby, 2007; O'Callaghan, 2006), attitude and behavioral change (Carlson & Widaman, 1988; Gurman, 1989), and to a much lesser degree, disciplinary learning (DiBiasio & Mello, 2004; Immelman & Schneider, 1998). An increasing number of studies focus not only on what students are learning abroad but examine the extent to which program-specific factors drive student learning outcomes, such as the language of instruction or the context of the academic program (Engle & Engle, 2004; Mohajeri Norris & Dwyer, 2005; Paige, Cohen, & Shively, 2004). Many of these studies use Engle and Engle's classification system of program elements (Engle & Engle, 2003), which The Forum's Committee on Outcomes Assessment has endorsed for research purposes (Vande Berg, Connor-Linton, & Paige, 2009).

Some attention has been given to analyzing how variables internal to students potentially moderate learning outcomes. The question of gender has been important, mostly because women comprise over 65% of the annual education abroad enrollment (IIE, 2009). Limited research has shown that female and male students experience studying abroad differently (Anderson, 2003; Martin & Rohrlich, 1991; Medina-Lopez-Portillo, 2004). Students' proficiency in languages, particularly that of the host country, is considered an important characteristic because of the challenges associated with studying in a country whose dominant language is not one's own (Citron, 1996; Rivers, 1998). Previous international travel experience has also been an important variable because research has shown those with more international experience show greater independence and international awareness compared to students without such international experiences (Gerner et al., 1992; Martin, 1987). However, the relationship between previous international travel experience and participation in education abroad remains unclear due to inconsistent empirical findings (Carlson et al, 1990; Hembrooff & Russ, 1993; Opper et al., 1990).

Other outcomes research has focused on how home institutional grading policies influence academic motivation (Trooboff, Cressey & Monty, 2004), the relationship between student housing and language learning (Gutel, 2008; Iino, 1996; Martin, 1985; Rivers, 1998; Schmidt-Reinhardt & Knight, 2004), and how the amount of contact with host country nationals leads to intercultural learning (Vande Berg et al, 2004). Another area of research, though not without its methodological challenges, has focused on conducting pre-/post-program programmatic intervention studies (Martin, 1989). Finally, several institutions have independently conducted large-scale self-assessment studies of student learning outcomes, such as the University System of Georgia (Sutton & Rubin,

2004) and Michigan State University (Ingraham & Peterson, 2004). Coleman (2009) pointed out two notable gaps in the existing literature, including the lack of research examining the importance of religion on developing intercultural competency and the relationship between sex/romance and language development.

Program Duration

The national and institutional momentum in recent years to significantly expand education abroad enrollment has led to a move away from the traditional junior year abroad experience to allow greater numbers of students to participate in semester-length and other forms of short-term programming (Hoffa, 2007; Hoffa & DePaul, 2010; Obst, Bhandari, & Witherell, 2007). Research on short-term programs deserves special consideration. Because the largest proportion of students now enroll in programs less than eight weeks in duration (IIE, 2008), a new body of research and scholarship examining program duration and student learning outcomes has begun to emerge (Johnson Brubaker, 2006). Much of this research challenges the conventional wisdom that, to be truly meaningful, the education abroad experience needs to be at least a semester in duration, if not a traditional year abroad (Gudykunst, 1979; Kinsella et al., 2002). In other words, the longer the students study abroad, the more significant their academic learning, intercultural development, and personal growth.

One of the most cited studies examining program duration and student learning outcomes was conducted by the Institute for the International Education of Students (IES), which surveyed 17,000 alumni of its programs during the previous 50 years (Dwyer, 2004). Dwyer identified five variables (general findings, academic attainment, intercultural development, career impact, and personal growth) and correlated results with the duration of programs in which participants studied. The study held that studying abroad for a full year has a more significant and enduring impact on students, but the author does mention the value of short-term programs. Upon closer observation, the findings suggest that in many categories, the outcomes for short-term participants were as likely, if not more likely, to achieve parallel benefits for those who studied abroad for longer durations. For example, in the area of academic attainment, summer program participants were more likely to state that study abroad reinforced their commitment to foreign language study and that the experience abroad enhanced their interest in academic study. These students also reported that the experience significantly increased their self-confidence.

In a similar study conducted by Michigan State University, Ingraham and Peterson (2004)

examined the impact of study abroad on students by focusing on their personal growth, intercultural awareness, and professional development. The study surveyed 1,104 education abroad participants before and after studying abroad. The results showed moderate to high growth in all areas and also found a correlation with program length. Similar to the IES study, the authors concluded that longer education abroad experience leads to greater overall learning.

On a much smaller scale, Medina-Lopez-Portillo (2004) examined how changes in program duration influence participant's development of intercultural sensitivity. Based at the University of Maryland, this study utilized a mixed methodology of qualitative interviews and quantitative measures using the Intercultural Development Inventory (IDI) (Hammer & Bennett, 2001). The study concentrated on the learning outcomes of students studying in Mexico, comparing a seven-week program with a sixteen-week program. Medina-Lopez-Portillo concluded that the difference in learning outcomes is substantial: the longer the program, the more likely students are to become interculturally sensitive. It should be noted that the study was limited by a low sample size, and though not explicitly mentioned by the author, the two programs were conducted in distinctly different learning environments, one in Taxco and the other in Mexico City.

While these studies suggest that longer experiences abroad lead to more transformative learning, other studies have shown that program duration may not necessarily be as neatly predictive of learning outcomes as once suggested (Erwin & Coleman, 1998). In what has become known as *The Georgetown University Consortium Project*, Vande Berg, Connor-Linton, & Paige (2009) employed Engle and Engle's classification system (Engle and Engle, 2003) to focus on student learning within three domains: second-language proficiency, intercultural competency and disciplinary learning. This inter-institutional study of nearly 1,300 students used the Simulated Oral Proficiency Interview (SOPI) and the IDI as pre-/post-test measures of student learning. The results showed that those who studied abroad for one semester showed the greatest gains in intercultural development and oral proficiency. The authors were quick to point out, however, that the sample size was too low in other program durations to draw firm conclusions.

Thought to be the most comprehensive and in-depth study of the long-term impact of education abroad to date, *Beyond Immediate Impact: Study Abroad for Global Engagement (*SAGE*)* sought to examine the long-term personal, professional, and social capital outcomes associated with undergraduate education abroad (Paige, Stallman, & Josić, 2008). A retrospective tracer study involving 22 colleges and universities, the authors surveyed and/or interviewed over 6,000 alumni who studied abroad from as far back as 50 years ago. Specifically, the study examined the ways in

which students become globally engaged during their lives after studying abroad with regard to four variables: gender, program duration, depth/program type, and destination. With regard to program duration, the study found a statistically significant relationship with global engagement, but the finding was not practically significant. In other words, the length of time students study abroad has no meaningful impact on whether they become globally engaged later in life. According to this study, a student who spends two weeks abroad is just as likely as those who study abroad for several months to be globally engaged during their lives after studying abroad (Fischer, 2009).

Short-Term Education Abroad Program Outcomes

In spite of the mixed findings regarding program duration, many educators extol the benefits of short-term education abroad, though most often as an alternative to semester-long or year-long programs (Johnson Brubaker, 2006; Lewis & Niesenbaum, 2005b). Short-term programs are said to enhance students' acquisition of foreign languages, improve their knowledge of other cultures, and transform their perspectives on the world. Students report becoming more attracted to interdisciplinary studies, more interested in understanding costs and benefits of globalization, and many state that the experiences abroad have helped them to question their assumptions, gather and interpret data, and use the data to navigate their place in a globalizing world (Hulstrand, 2006; Lewis & Niesenbaum, 2005a). Although many such assumptions exist in regard to short-term programs, such claims are more often based on anecdotal information gathered from students than on documented empirical evidence. Short-term programs are an ever-increasing part of international education, but there is very little outcomes assessment data available to demonstrate clearly what students actually learn. With the few studies that exist, early evidence suggests that short-term programs are beneficial to students.

Chieffo and Griffiths (2003, 2004) have conducted considerable research on short-term programs, much of which has centered on the impact of January-term programs on student learning. In a 2003 study, the authors conducted a survey of University of Delaware students at the conclusion of its January winter session. Students were asked to rate their international awareness and involvement in international activities looking back over the previous thirty days—the approximate length of the four-week term. The analysis examined learning outcomes for those who studied abroad during January with those who enrolled in residential courses. The results showed those who studied abroad were more open to communicating with people from other cultures and receptive to learning foreign languages. These students also reported thinking more about the

differences and similarities between themselves and people in other countries, especially how other countries have differing perspectives than the U.S. on global issues. Survey items related to global interdependence showed that the education abroad participants were more confident talking about U.S. foreign policy and reported being more comfortable with understanding how people from other countries view Americans. In a 2004 study, perhaps the largest published study to date on short-term programs, the authors again questioned whether students taking courses abroad during January-term acquire global awareness to a greater extent than those who enroll in similar residential courses (Chieffo & Griffiths, 2004). Using a sample of 2,300 University of Delaware students, the authors focused on four dimensions of global awareness: intercultural awareness, personal growth and development, awareness of global interdependence, and functional knowledge of world geography and language. Overall, Chieffo and Griffiths concluded that short-term education abroad programs, even those as short as one month, are worthwhile educational experiences that lead to enhanced global awareness.

Since the University of Delaware's four-week, January programs are almost always led by faculty, the findings of these studies arguably have theoretical generalizability to embedded education abroad. Unfortunately, there is even less research to investigate student learning outcomes associated with embedded education abroad programming in spite of the growing presence and support for these programs on U.S. campuses. These programs are referred to as "embedded" because the international experience is conceived to be part of the residential course itself, designed, organized, and taught by home-school faculty (Gutierrez, Auerbach, & Bhandari, 2009). The international travel component of the course takes place during a mid-semester break or after the end of the on-campus term and is typically just a week or two long (Peterson et al., 2007). Embedded programs offer maximum institutional flexibility and minimal financial drain to university budgets. Despite the brevity of these programs, they can offer ideal opportunities to engage student learning and development at three distinct stages: pre-departure, on-site, and re-entry. The few studies in this area have been mostly small-scale and course-specific. Oddly, there seems to be more written about how faculty benefit from leading student groups abroad and how institutions are internationalizing their curricula through embedded programs than the extent to which these programs have real and measurable learning outcomes for students (Hulstrand, 2008; Finkelstein, Walker & Chen, 2009; Sandgren et al., 1999).

Lewis and Niesenbaum (2005a) have considered the beneficial outcomes for students participating on embedded programs. The authors examined the student learning outcomes of a

semester-long course with an embedded two-week education abroad component to Costa Rica. They surveyed past participants who enrolled in the course, which was offered five times from 1998 to 2003. Though the response rate was high at 74%, they received only 32 responses. The results showed that many students have more diverse academic interests as a result of studying abroad and an increased interest in interdisciplinary studies. Over half traveled or studied abroad after the initial experience in Costa Rica, and almost all agreed the experience increased their understanding of globalization.

Bond, Koont, and Stephenson (2005) conducted an evaluation study of three embedded programs from different institutions, all of which were to Cuba. The three programs were similar in most respects but differed by academic content. The authors created an evaluation questionnaire that was administered before and after the education abroad experience. The analysis examined expected and experienced challenges in Cuba, beliefs about people and life there, effects of the experience on perceptions of self, and the overall evaluation of the experience. Though not fully discussed by the authors, the results suggest that even relatively brief experiences abroad can shift students' values and beliefs in constructive directions. The authors added that different course content and how the embedded programs are implemented may lead to distinct learning outcomes.

Anderson, Lawton, Rexeisen, and Hubbard (2006) sought to assess the extent to which embedded programs affect the intercultural sensitivity of students. As with other studies previously mentioned, the authors administered the IDI before the students traveled abroad and then again four weeks after they returned to the U.S. Although the study was small-scale, focusing on just one course with 16 students, the results showed the embedded program had a positive impact on the overall development of intercultural sensitivity. In particular, students improved their ability to accept and adapt to cultural differences.

In spite of the general lack of research specifically examining embedded programs, institutions continue to invest in faculty travel to teach, conduct research, and lead students on education abroad programs. According to ACE, 58% of U.S. institutions now provide support to faculty leading education abroad programs (Green, Luu, & Burris, 2008). However, international group travel for academic credit is not a new phenomenon. In his book, *A History of U.S. Study Abroad: Beginnings to 1965*, Hoffa (2007) wrote about one such program taking place in 1880. Open to faculty, staff, students and the local community, the program was led by Dr. David Staff Jordan, who would later become the president of Indiana University. Although there were likely many universities in the late 1800s that subsequently orchestrated similar programs, Hoffa states that it was not until the 1920s

when universities started awarding academic credit for international group travel. What evolved was the faculty-led study tour with instruction taught in English and academic credit earned through examinations and course papers. Although there are no national statistics available to track the growth of embedded programs, IIE (2008) suggests that enrollments in such programs have grown proportionately with other short-term programming. In her brief history of faculty-led programs, Williamson (2010) states that university faculty and administration have come to see faculty-led programs as more than a modern version of the traditional *grand tour*. Rather, she states, these programs can be an ideal vehicle for fostering both a challenging education and global citizenship among students.

Irrespective of this long history and these early, yet encouraging outcomes studies, there is an undercurrent of skepticism regarding the educative value of short-term, faculty-led programming. Some have likened short-term programs to cultural tourism or cultural dilettantism, saying that students spend most of their time with other Americans and have little opportunity to immerse themselves in the local culture in many of these programs (Fischer, 2009). Van Engen (2000) has sharply criticized those service learning-focused short-term programs, claiming that such programs are more often about benefitting the students than with those they have set out to help. She cites the example of one group of 18 students who spent more than $25,000 to buy airline tickets to fly to Honduras for spring break, an amount that surpassed by half the annual budget of the orphanage that they sought to assist. In other words, students often return saying their experiences abroad were "life changing" without really having gained much insight into the causes of poverty or what can be done to alleviate them. These sentiments are echoed in Ivan Illich's (1968) well-known speech, *To Hell with Good Intentions*.

Others have criticized the consumer mentality increasingly evident among education abroad students, stating that students are too frequently buying an experience for its interesting culture, for the language learning, for the broadened perspective even, and are not participating often enough in an intercultural exchange where the host community gains as much from having the student as the student gains from being there (Bolen, 2001; Ogden, 2007). Similarly, Zemach-Bersin (2008, 2009) claims that education abroad programs, whether short- or long-term, all too often make promises that students will become global citizens. She observed that education abroad programs seldom engage students in discussions of such important and relevant topics as the commodification of cultures or of the power dynamics inherent to host-culture contact. According to Zemach-Bersin, American students cannot truly be expected to transcend historical, political, social, and global

systems of power in order to become interculturally immersed global citizens during an education abroad experience. Rather, education abroad programs can and should enable students to become internationally conscious and self-aware American citizens.

Perhaps one of the most stinging criticisms, Woolf (2007), claims that the growth in short-term programming has not been student driven. Rather, he suggests that higher education administrators are prioritizing short-term programs as income-generating profit centers over semester-length programs, where tuition may be lost to the home institution. Woolf also points out that, irrespective of academic quality or standards, institutions drive the growth of short-term programs to quickly expand enrollments. In other words, increasing the number of students abroad on short-term programs is a fast and relatively easy way for institutions to move up in the national rankings of education abroad participation. Unlike exchange programs, for example, short-term programs can be established quickly and easily and require little or no long-term institutional commitment.

Although these criticisms of short-term programming are relevant, Chieffo and Griffiths (2009) stress that these programs are here to stay. As more and more institutions seek to include short-term education abroad opportunities in their internationalization strategies, and embed within their mission statements the goal to graduate global citizens (Braskamp, 2008; Ehrlich, 2000; Green, Luu, & Burris, 2008; Holland & Meeropol, 2006; Langran, Langran, & Ozment, 2009), the demands for empirical data on what students learn abroad and how they are changed in the process will continue to escalate. More research is needed to understand how embedded education abroad programs benefit students' intellectual development, how they contribute to producing global citizens, and how their learning outcomes differ from those who study on longer programs.

Self-Selection

Because studying abroad is an activity for which students themselves select to participate, it is reasonable to anticipate that these students have demonstrated an interest in learning about other cultures and may already have a higher degree of global citizenship in comparison to their peers who do not study abroad. In fact, previous research suggests this is indeed frequently the case. For example, Rundstrom Williams (2005) found that education abroad participants have higher pre-test scores of intercultural communication than students who did not plan to study abroad. Goldstein and Kim (2005) found that education abroad participants were significantly different in terms of their levels of ethnocentrism and prejudice, and that these variables were significant predictors of

education abroad participation. Douglas and Jose-Rikkers (2001) have shown that education abroad participants have a stronger sense of world-mindedness than non-participants. In an early study, Carlson et al. (1990) found that education abroad participants differed in their desire to improve their foreign language abilities. Numerous others have noted key demographic differences between student populations, with many pointing to gender, age, race/ethnicity, class standing, academic discipline, GPA level, and previous international experience. Moreover, the enrollment analysis within this study provides evidence that education abroad participants, at least within one institution, do not reflect the undergraduate population in areas such as first-generation status and demonstrated financial need.

While such issues of self-selection are frequently mentioned throughout the literature (Hadis, 2005b), few studies have accounted for self-selection through the use of control groups or statistical measures to control for difference between samples. According to Dwyer (2004), this is mostly due to the difficultly of obtaining control groups that are truly comparable with education abroad treatment groups (i.e., coursework completed, previous international experience, socio-economic level, etc.). Also, Chieffo and Griffiths (2003) have pointed out that much of the outcomes assessment research is small-scale, thus making it very difficult to have sample sizes large enough to control for an array of variables. All in all, self-selection remains a continually present methodological roadblock in education abroad outcomes assessment research, and future research that explores research methodologies and statistical measures to better account for self-selection is welcome.

Summary

As education abroad outcomes assessment research continues to mature and diversify, other research needs are emerging, such as calls for discipline-specific outcomes research and how particular programming elements promote student learning outcomes (Hoff, 2008). In particular, the higher education community is calling for research to examine the impact of short-term education abroad programming, specifically the degree to which embedding international experiences into residential courses enhances academic development and leads to gains in global citizenship. Overall, the proliferation and diversification of education abroad research are positive indicators that higher education as a whole is gaining a greater understanding of the personal and academic growth that results from international educational experiences.

IV GLOBAL CITIZENSHIP

In much of the language promoting the benefits of education abroad, a widely used concept that seems to be universally understood is global citizenship, but it is rarely defined or explained. Although scholars have debated the meaning of the term (Parekh, 2003) and others criticize its ubiquitous usage in higher education (Roman, 2003; Zemach-Bersin, 2009), many assert that the integration of education abroad experiences into the undergraduate curriculum is an effective pathway on which to guide students toward becoming engaged global citizens (Brown, 2006; Hunter, White & Godbey, 2006; Praetzel, Curcio, & Dilorenzo, 1996). This fourth section reviews the literature on global citizenship in an attempt to arrive at an operational definition that aligns with education abroad programming, presenting and discussing three dimensions of global citizenship in relation to existing outcomes research on education abroad programming.

Defining Global Citizenship

The idea of global citizenship seems a recent concept, but its origins date back to antiquity. In ancient Greece, the idea was articulated through the notion of *kosmou polite*, or the 'citizen of the cosmos', who was defined by membership in a larger community of humans sharing fundamental capacities to engage in rational and enlightened thinking (Dower & Williams, 2002; Streitwieser & Light, 2010). In fact, it was the Greek philosopher, Diogenes, who first declared himself a cosmopolitan, or citizen of the world, in the 4th century which was, interestingly, a time when the earth's shape and configuration were still largely unknown (Hower, 2006). Much later, Immanuel Kant invoked *The Law of World Citizenship* in his 1795 essay, "Perpetual Peace: A Philosophical Sketch". Kant argued that as people of distant parts of the world come into contact with each other, the human race will gradually be brought closer to a constitution establishing world citizenship. For Kant, the idea of world citizenship was essential for the maintenance of human rights and peace in the world. The idea that citizenship can transcend national boundaries has since been expanded and further elaborated upon by both scientists and philosophers alike, including Albert Einstein, Jürgen Habermas, Amartya Sen, Martha Nussbaum, Richard Falk, and John Urry (Schattle, 2008, 2009).

In the contemporary academic literature, global citizenship remains a highly contested concept that scholars continue to discuss and debate from a variety of theoretical and philosophical perspectives (Dower & Williams, 2002; Streitwieser & Light, 2010). Some scholars have asked whether the concept, ambiguous and undefined as it is, can serve as anything more than a mere

metaphorical flourish (Carter, 2001; Davies 2006). Roman (2003) questioned whether global citizenship is fundamentally and inextricably linked to notions of colonialism and neo-colonialism, or if the idea can be reconceived within "anti-colonial global, transnational, local, and grassroots forms of community and democracy" (p. 270). Clark (1996) has claimed that trying to define global citizenship may be a premature exercise when reaching consensus on the meaning of national citizenship is still elusive. Parekh (2003) has taken the stand that the *kosmou* is not yet a *polis,* and thus, rejects the notion of global citizenship. Instead, he argues, we should educate for a globally oriented national citizenship and articulate its political, institutional, and social implications. According to Parekh (2003), globally oriented citizenship involves examining the policies of one's country and ensuring they do not damage the interests of humankind at large. A globally oriented citizen has a strong sense of social responsibility to the citizens of other countries and feels the need to respond to their pleas for help. This involves taking an active commitment to create a just world order in which countries work together to attend to their common interests in an environment of mutual concern (p. 13).

Lagos (2001) sees global citizens as "active political, social, environmental or economic agents in an interdependent world in which new institutional forms beyond nations are beginning to emerge" (p. 1). In his efforts to arrive at a definition of global citizenship, Lagos (2001) examined the political climate of a globalizing world to arrive at five premises that characterize the emergence of global citizens. First, he claims that global citizens are not defined by any legal sanction and their existence is associational, meaning that these individuals live, work, and play within transnational norms that defy national boundaries and sovereignty. Second, he recognizes that global citizens have a common base in grassroots activism. Third, global citizens are redefining ties between civic engagement and geography. Fourth, with the rise of people migrating around the world, there has been a growing acknowledgement of universal rights, with global citizens advocating especially for human rights. Finally, Lagos notes that global citizenship may be the result of "Pax Americana," and suggests that rising cross-national cooperation to counter American economic and political dominance may produce more global citizens.

In part, Lagos built his premises upon Falk's often-cited categories of global citizenship. In his 1994 article, "The Making of Global Citizenship", Falk identified five categories of global citizens: *global reformers, elite global business people, global environmental managers, politically conscious regionalists*, and *transnational activists*. According to Lagos, Falk's categories have grassroots activism at their core. Global reformers favor some form of centralized world government or organization in order to

avoid global turmoil. These global citizens feel, think, and act for the sake of humanity, especially for those most vulnerable and disadvantaged. Elite global business people see the world unifying around common business elite with shared interests and experiences. Falk points out those in this category lack a global civic sense of social responsibility. Global environmental managers stress the shared destiny on the earth and urge global cooperation to ensure the sustainability of civilization. Politically conscious regionalists emphasize the supranational role of the European community to create a more peaceful and just world. Finally, transnational activists act to promote a certain kind of political consciousness, such as the type of activism important to Amnesty International and Greenpeace. Yúdice (2003) explains this last category is especially centered on respect for human rights, grassroots democracy, and environmental reform. In 2000, Urry reframed Falk's categorization into *global cosmopolitans, global activists, global reformers, global managers*, and *global capitalists*.

In Europe, where a legally binding model of European Union citizenship complements the institution of national citizenship, scholars have more readily considered arguments advocating for global citizenship (Schattle, 2009). The Council of Europe's project on *Education for Democratic Citizenship,* which also builds on Falk's perspectives on global citizenship, arrived at three basic elements of citizenship not linked to a particular country or territory: global awareness, post-national citizenship, and post-modern citizenship (Bîrzéa, 2000). From the global awareness perspective, global citizenship means learning about world problems, sharing the world, and acting in a worldwide perspective. The post-national citizenship perspective emphasizes the concentric circles of citizenship, from proximal to global identities. Global citizens may choose any political entity for their own identification. Post-modern citizenship denies the classic ideal of citizenship, suggesting instead that citizenship is relative to new types of relationships between the individual and the public sphere. The Council of Europe uses these elements of global citizenship to formulate policy recommendations within the European community.

Within the United States, Campus Compact, a national coalition of more than 1,100 college and university presidents, has articulated a vision of global citizenship hinging on principles of civic engagement (Flanagan, Syvertsen, & Stout, 2007). For its 20th anniversary, Campus Compact solicited more than 40 essays from college presidents, faculty, community partners, and others on the theme of educating for global citizenship. With the assumption that civic engagement is critical for the development of global citizenship, Mark Hower (2006) of Antioch University built on Mezirow's Theory of Transformative Learning (1991) to articulate eight essential principles for global citizenship. These are 1.) holistic and collaborative approaches win; 2.) change is not loss; 3.)

relationships deepen humanity; 4.) difficult problems require collective attention; 5.) respect for others is golden; 6.) contribute where you live; 7.) find comfort with ambiguity; and 8.) take responsibility. For Hower, students learn these eight principles when they actively participate in their communities. Richards (2006) of Kapi'olani Community College also submitted an essay in which he discussed at length the recent work of the ACE to develop a comprehensive and detailed set of intercultural and international learning outcomes required of a globally competent student. ACE partnered with six colleges and universities in a Fund for the Improvement of Postsecondary Education (FIPSE)-funded project to determine an array of outcomes grouped by knowledge, skills, and attitudes. According to Richards, a large number of these outcomes can be achieved through service-learning pedagogy and civic engagement. In a related study funded by the Ford Foundation, ACE catalogued institutions that had integrated these learning outcomes within their strategies for internationalization (ACE, 2008).

Prominent educator and philosopher, Noddings (2005) addressed the meaning of global citizenship in her book, *Educating Citizens for Global Awareness*. Noddings takes issue with defining global citizenship solely in terms of economics, such as in the removal of barriers to free trade or the closer integration of national economies (2005). From this perspective, a global citizen is simply one who can live and work effectively anywhere in the world (p. 3). Rather, for Noddings, global citizens should be more concerned about existing economic injustices in the world and be committed to the elimination of poverty. Global citizens should be concerned with protecting the environment and should value diversity, including multicultural, religious, and intellectual diversity. Echoing the voice of Kant, Noddings explains that global citizenship and peace are closely intertwined, and that it should be a purpose of education to teach students to understand how local decisions have global economic consequences, the importance of protecting the Earth, and the value of encouraging unity while celebrating diversity.

Dobson (2003) offers a view of global citizenship in which issues of justice, the environment, and civic obligations are key determinants. Dobson's view that global citizenship is comprised of dimensions is consistent with Westheimer and Kahne (2004), Andrzejewski and Alessio (1999), and Langran, Langran, and Ozment (2009). Westheimer and Kahne (2004) propose a framework for citizenship that complements Noddings' perspective on global citizenship and shares her views on the importance of educating citizens for democracy. The framework was developed around the central idea of what kind of citizen is needed to support an effective democratic society. The three kinds of citizenship are the *personally responsible citizen*, the *justice-oriented citizen*, and the *participatory*

citizen. The personally responsible citizen is someone who is honest, responsible, and understands the need to solve problems and improve society. The justice-oriented citizen questions, debates, and seeks to change established systems and structures that reproduce patterns of injustice over time. These citizens know how to assess social, political, and economic structures and how to effect systemic change. The participatory citizen actively participates and takes leadership positions within established systems and community structures. These citizens actively organize community efforts to care for those in need, promote economic development, or clean up the environment. However, Westheimer and Kahne (2004) do not speak to the interaction or shared qualities of these three kinds of citizens.

In much the same way, Andrzejewski and Alessio (1999) have defined global citizenship as knowledge and skills necessary for acting on social and environmental justice issues. They have considered global citizenship along three learning objectives. First, global citizens must have an understanding of ethical behavior in personal, professional, and public life. Second, they need to have knowledge and skills for involved responsible citizenship at the local, state, national, and global levels. They should be able to "identify and investigate problems, examine underlying assumptions, synthesize information, formulate solutions, identify constituencies, compose arguments, and indentify appropriate forums for taking action" (p.8). Third, global citizens need to have an understanding of their civic responsibilities to others, to society, and to the environment. Andrzejewski and Alessio (1999) have presented their framework as a working document for educating for global citizenship.

Based on the work of Joseph Carens (2000), Langran, Langran, and Ozment (2009) have also proposed a three dimensional framework for global citizenship and have defined a set of core competencies that provide a basis for assessment. The *psychological dimension* reflects one's sense of identity in a global political community. The *political dimension* reflects the ability of students to distinguish among different international organizations and demonstrate a basic understanding of the role that their own countries play in such bodies. The *legal dimension* reflects the responsibilities that come from the interconnectedness of the world. These authors emphasize that a range of teaching methods must be employed to promote effective education on global citizenship, and listed among these methods is undergraduate education abroad.

Dimensions of Global Citizenship

The ideas that converge most readily within the contemporary global citizenship discourse are related to responsibility, awareness, and participation (Schattle, 2009). Although no one uniform or commonly accepted definition of global citizenship emerges from the academic literature, three overarching themes or dimensions of global citizenship are consistently and pervasively noted across the many disparate perspectives. Table 2.1 organizes the literature on these three dimensions, which have been identified as *social responsibility*, *global competence,* and *global civic engagement*. These interrelated dimensions align well with the prominent theoretical and philosophical perspectives described in the literature; reflect how governmental entities, associations, and educators have framed global citizenship; and articulate ideas that resonate with the goals of undergraduate education abroad (see Table 2.1).

Social responsibility is understood as the perceived level of interdependence and social concern to others, to society, and to the environment (Andrzejewski & Alessio, 1999; Braskamp, Braskamp, & Merrill, 2008; Parekh, 2003; Westheimer & Kahne, 2004). Socially responsible students evaluate social issues and identify instances and examples of global injustice and disparity (Falk, 1994; Lagos, 2001). They examine and respect diverse perspectives and construct an ethic of social service to address global and local issues (Noddings, 2005). They understand the interconnectedness between local behaviors and their global consequences.

Table 2.1 *Global Citizenship Literature by Thematic Grouping*

	Social Responsibility	Global Competence	Global Civic Engagement
Falk, 1994; Urry, 2000	Global Reformers: Feel, think and act for the sake of humanity	Elite Global Business People: unified around shared business interests	Global Environmental Mgrs; Politically Conscious Regionalists; Transnational Activists
Andrzejewski & Alessio, 1999	Understanding of ethical behavior in personal, professional, and public life	Knowledge and skills for responsible citizenship at local, state, national, and global levels	Committed to civic responsibilities to others, to society and to the environment
Lagos, 2001	Acknowledges universal rights and advocates for human	Aware of inter-governmental orgs., bureaucracies, new	Engages in grassroots activism; Redefines ties

	rights	electronic spheres of communication, etc	between civic engagement and geography
Parekh, 2003	Sense of responsibility to citizens of other countries and feels the need to respond to their pleas for help	Understands policies of one's country to ensure they do not damage the interests of others	Committed to create a just world order in which countries work together with mutual concern
Dobson, 2003; Westheimer & Kahne, 2004	Personally Responsible Citizen; Honest, responsible, and understands the need to solve problems and improve society	Justice-oriented Citizen; Knows how to assess social, political and economic structures and how to effect systemic change	Participatory Citizen: Actively participates and takes leadership positions within established systems and community structures
Noddings, 2005	Understands that local decisions have global economic consequences	Understands and values multicultural, religious and intellectual diversity	Committed to the elimination of poverty and protecting the earth
Carens, 2000; Langran, Langran, & Ozment, 2009	Psychological Dimension; Has sense of identity in a global political community	Political Dimension; Distinguish among different inter-national organizations and understands role of own country	Legal Dimension; Reflects the responsibilities that come from the interconnectedness of the world

Global Competence is understood as having an open mind while actively seeking to understand others' cultural norms and expectations, and leveraging this knowledge to interact, communicate, and work effectively outside one's environment (American Council on Education, 1998; Deardorff, 2006b; Hunter, White, & Godbey, 2006; Peterson et al., 2007; Westheimer & Kahne, 2004). Globally competent students recognize their own limitations and abilities to engage in intercultural encounters. They demonstrate an array of intercultural communication skills and have the abilities to engage successfully in intercultural encounters. Globally competent students display interest and knowledge about world issues and events.

Global Civic Engagement is understood as the demonstration of action and/or predisposition toward recognizing local, state, national, and global community issues and responding through actions such as volunteerism, political activism, and community participation (Andrzejewski &

Alessio, 1999; Lagos, 2001; Paige, Stallman, & Josić, 2008). Students who are civically engaged contribute to volunteer work or assist in global civic organizations (Howard & Gilbert, 2008; Parekh, 2003; Westheimer & Kahne, 2004). They construct their political voice by synthesizing their global knowledge and experiences in the public domain, and they engage in purposeful local behaviors that advance a global agenda (Falk, 1994; Putnam, 1995).

Thus, for the purposes of this study, global citizenship is understood as a multi-dimensional construct that hinges on the interrelated dimensions of social responsibility, global competence, and global civic engagement (see Table 2.2). It is the presence of each of these dimensions that leads to global citizenship. Consider, for example, that one can have a sense of social responsibility and the global competence needed to effectively engage the world, but does little beyond merely discussing issues. This person, akin to a coffee shop intellectual, does not engage in or take purposeful actions that advance global citizenship. Again, consider someone who has a sense of social responsibility and is fully engaged in local and global issues, yet lacks the competencies needed to engage effectively in the world. A naïve idealist, this person may not recognize his/her own knowledge limitations or have the intercultural communication skills needed to engage successfully in intercultural encounters. Finally, consider that one may have the competence to effectively engage in the world and actively do so but lacks a sense of social responsibility or genuine concern for others. This person, akin to Falk's elite global business person or Urry's global capitalist, may be guided more by global economic forces and the market economy than any real commitment to civil society. Thus, all three dimensions are critical to global citizenship, and according to Noddings (2005), Westheimer & Kahne (2004), and Andrzejewski & Alessio (1999), all should be incorporated into curricula, clearly identified in standards, and assessed in meaningful ways.

Table 2.2 *Dimensions of Global Citizenship*

Social Responsibility	Global Competence	Global Civic Engagement
Description		
Interdependence and social concern to others, to society, and to the environment	Understanding one's own and others' cultural norms and expectations and leveraging this knowledge to interact, communicate, and work effectively outside one's environment	Recognizing local, state, national, and global community issues and responding through actions such as volunteerism, political activism, and community participation

Core Assumptions		
Global justice and disparities; Altruism and empathy; Global interconnectedness and personal responsibility	Self-awareness; Intercultural communication; Global knowledge	Involvement in civic organizations; Political voice; Glocal civic activism
Sample Perspectives		
"I respect and am concerned with the rights of all people, globally."	"I am informed of current issues that impact international relations."	"I volunteer my time by working to help individuals or communities."
"No one country or group of people should dominate and exploit others in the world."	"I am able to mediate interactions between people of different cultures by helping them understand each others' values and practices."	"I boycott brands or products that are known to harm marginalized people and places."

Education Abroad & Global Citizenship

Because there are numerous competing definitions and models for global citizenship and no consensus among international educators about what it really means or on how to measure it (Peterson et al, 2007; Streitwieser & Light, 2010), it should not be surprising that diverse threads of research have emerged within education abroad outcomes research. The most common threads of research in this area include: 1.) intercultural competence; 2.) world-mindedness/global-mindedness; 3.) identity change; 4.) global competence; and 5.) global perspectives. According to the literature on global citizenship and the three dimensions identified and described above, these research threads essentially focus on minor components of the larger idea of global citizenship. For example, in the multi-dimensional framework proposed above, it is possible for one to have global competence without being a global citizen, but it is theoretically impossible to be a global citizen without having some degree of global competence. Although the field of education abroad is still in a phase of defining terms and justifying positions, it is important that the positioning of global citizenship as a primary and desirable outcome of education abroad programming be supported with a credible base of scholarly research and empirical evidence (de Wit, 2009; Peterson et al, 2007; Streitwieser & Light, 2010).

The first and most common thread of outcomes research as a learning outcome of education abroad on global citizenship focuses narrowly on the development of intercultural competence.

Since 1993, Bennett's Developmental Model for Intercultural Sensitivity (DMIS) has provided a theoretical model for numerous outcomes assessment studies that have documented significant intercultural learning gains. More recently, Deardorff (2004, 2006a, 2006b) proposed a pyramid model of intercultural competence that emerged from a Delphi study of international educators and intercultural scholars. This complex model describes a process in which one builds on knowledge, skills, and attitudes for desired internal and external outcomes. Kitsantas and Meyers (2001) have used the Cross-Cultural Adaptability Inventory (CCAI) to measure student intercultural learning and have found that post-test results show that students show significant increases in all four CCAI scales: emotional resilience, flexibility and openness, perceptual acuity, and personal autonomy. In a much larger study, Kitsantas (2004) again found that education abroad experiences enhance students' intercultural competence and global understanding. This study also showed that students' goals for choosing to study abroad influenced the magnitude of their learning outcomes. As part of her ongoing research on global citizenship, Jackson (2008b) conducted an illustrative case study of students participating on a five-week education abroad program. The study was theoretically based on the DMIS, and the findings show that students acquired higher levels of intercultural sensitivity in result of studying abroad.

A number of studies have examined world-mindedness as an outcome of education abroad participation. According to Douglas and Jones-Rikkers (2001), world-mindedness refers to the extent to which individuals value a global perspective on various issues. These individuals are more likely to see viewpoints different from their own ethnic, national, or religious perspectives as valuable. A world-minded individual both recognizes and appreciates cultural differences. Using this definition of world-mindedness, Douglas and Jones-Rikkers (2001) conducted a survey-based outcomes study comparing education abroad participants with students who did not study abroad. The results showed that students who participate in education abroad programs have a higher level of world-mindedness than non-participating students, and that the cultural differences between a student's home culture and host culture have a positive effect on the level of world-mindedness: The greater the difference in cultures, the greater the increase in world-mindedness. In related studies of world-mindedness, Boatler (1991) found increases in the world-mindedness of students participating in a 4-week summer program. In 1992, Boatler found that education abroad students who enrolled in courses with cultural awareness content showed significant increases in world-mindedness above students who attended classes with a traditional area studies focus. Rogers and Kochunny (1994)

found that those with limited previous international experience showed higher increases in world-mindedness than those with limited experience.

There have been several related studies assessing global-mindedness. As defined by Hett (1993), global-mindedness refers to having a worldview in which one sees him or herself connected to the world community and feels a sense of responsibility for its members. Globally-minded individuals think in terms of "what is good for the global community and shares an awareness and appreciation of the interrelatedness of all peoples and nations" (Golay, 2006, p. 8). In a large-scale study on global-mindedness, Gillian (1995) found that education abroad participants were more globally-minded than non-participants and also found that gender, age, and program duration were significant predictor variables for global-mindedness. Golay (2006) found that studying abroad for one semester led to significant gains in global-mindedness, and that these gains were much larger than for those who did not study abroad. Kehl (2005) found that education abroad participants reported significantly higher levels of global-mindedness compared with those who intended to study abroad at some point in the near future. In addition, Kehl found evidence that suggests those who study abroad for one semester or longer have higher global-mindedness than students who study abroad for eight weeks or less.

There has been considerable attention paid to identity changes in those who study abroad. An frequently cited scholar in this area, Dolby (2004, 2007) has written on how students negotiate an "American" identity within the context of their education abroad experiences. In a 2004 study, Dolby conducted a qualitative study of 26 students who studied abroad for a semester in Australia. She found that students' national identities shift from passive to active identification while abroad. Their "American" identities are not discarded or strengthened but become laden with contradictions as students encounter cultural differences (Dolby, 2004). Drews, Meyer, and Peregrine (1996) examined how students conceptualize other national groups and found that those who studied abroad were more likely to perceive members of other national groups in personal terms, rather than in non-personal attributes such as their national foods and geographic characteristics. O'Callaghan (2006) also examined identity development in students who studied abroad for one semester. Among her findings, O'Callaghan discussed that, upon returning from abroad, students reported that their views of the U.S. had become more politically optimistic and enlightened. Hadis (2005a) found that students returning from education abroad experiences report increased interest in institutions such as the United Nations and are more concerned about the inequality between

wealthy and poor nations. Laubscher (1994) found that studying abroad leads to increased critical objectivity toward the United States.

Global competency development has been the focal point of some recent research. Hunter, White, and Godbey (2006) used a Delphi technique to develop a definition for global competence and a survey to determine the knowledge, skills, attitudes and experiences necessary to be considered globally competent. This instrument is known as the Global Competence Aptitude Assessment (GCAA). According to the authors, global competence is "having an open mind while actively seeking to understand cultural norms and expectations of others, leveraging this gained knowledge to interact, communicate and work effectively outside one's environment" (Hunter, 2004, pp. 130-131). Olson and Kroeger (2001) have also proposed an operational definition of global competence, purporting that a globally competent person has "enough substantive knowledge, perceptual understanding, and intercultural communication skills to effectively interact in our globally interdependent world" (p. 117). Although these definitions are widely cited in the academic literature, neither has been used in known published outcomes assessment research.

Larry Braskamp of The Gallop Organization has written extensively on the role colleges and universities have in developing global citizens. He says contemporary students have no choice but to be global citizens and that education abroad is one effective pathway to develop students with global perspectives (2008a). Braskamp, Braskamp, and Merrill (2007, 2008, 2009) have conducted several large-scale and multi-institutional studies assessing global learning outcomes using the Global Perspective Inventory (GPI). This instrument was designed by the authors to measure three domains of global learning and development: cognitive, intrapersonal, and interpersonal. Within each domain are two scales that measure each of the three domains. The two cognitive scales are *knowing* and *knowledge*; the two intrapersonal scales are *identity* and *affect*; and the two interpersonal scales are *social responsibility* and *social interaction.* The authors have used the GPI as a pre-/post-test measure of changes in students' global perspectives as an outcome of education abroad. In 2008, they conducted a study of 245 students enrolled in ten different semester-long programs from five different institutions. The results showed that students had statistically higher post-test means on all scales. According to the authors, the results undeniably demonstrate that education abroad helps students develop holistically and globally and is therefore a value-added experience of undergraduate education.

Ironically, few scholars have attempted to measure global citizenship at its broadest sense as an outcome of education abroad. Tarrant et al. (2010) have built upon the work of Noddings (2005),

Dolby (2004), and others to extend the notion of global citizenship to measure pro-environmental behaviors and intentions arising from students' participation in short-term education abroad programs. In particular, the authors utilized the three kinds of citizens proposed by Westheimer and Kahne (2004) to develop a pre-/post-test survey instrument. The survey was administered to 320 students from ten institutions participating in 4-week programs to either New Zealand or Australia. The post-test findings showed a significantly higher predisposition among participants to support environmental policy initiatives across all citizenry-types, and those justice-oriented citizens in particular showed higher pro-environmental levels. The authors concluded that education abroad programming should concentrate more on justice issues surrounding global environmental problems.

In a joint 2009 presentation with Tarrant, Lisa Chieffo of the University of Delaware and David Shallenberger of SIT Graduate Institute presented preliminary results of studies on facilitating global citizenship through short-term education abroad programs. Chieffo reported that in a recent mixed-method study of 1,200 students participating on over fifty 4-week programs, students showed significant global citizenship learning outcomes, which were grouped in a similar fashion to the knowledge, skills, and attitude model proposed by ACE (Chieffo, 2009). Shallenberger presented results of a qualitative study focusing on the longitudinal reflections of those studying abroad on short-term programs over the previous 15 years. Specifically, Shallenberger proposed a set of competencies related to global citizenship and examined student reflections accordingly. Of the most frequently cited impacts, alumni reported changes in their perspectives of the world and how the experience abroad gave them access to a broader conversation on world dynamics. The results also showed that participants returned with a greater awareness of their own worldview and a better sense of their own national identity (Shallenberger, 2009).

As part of a small-scale, qualitative study on understanding the impact of short-term education, Sindt (2007) examined the degree to which summer programming leads to global citizenship. Sindt relied on Hayhoe's (1998) little-known definition of global citizenships, which refers to one's ability to "participate effectively in democratic public discourse in the international arena…deliberate on contemporary world issues and appropriate solutions strategies with people from across the world" (p. 1). Her results reinforced Dolby's (2004, 2007) findings that education abroad participation leads to a stronger understanding of the concepts of citizenship and national identity among students and a deeper understanding of the role of the U.S. in relation to the world. Sindt described that the home university faculty, administrators, and students all emphasized that exposure to other cultures helps

broaden student perspectives and cross-cultural awareness. Sindt concluded by emphasizing the importance of engaging the faculty in institutional internationalization efforts.

Summary

One of the driving forces behind the growth of education abroad has been the assumption that through studying abroad students become global citizens (Fugate & Jefferson, 2001). This assumption hinges on the basic argument that participation in education abroad offers a life-changing, transformative experience that broadens horizons and bestows the professional and intellectual credential of global citizenship upon the student (Streitwieser & Light, 2010; Zemach-Bersin, 2008, 2009). Although the literature documents diverse student learning outcomes associated with studying abroad, much of this research has been limited to threads of inquiry that target specific elements of global citizenship. In other words, there is very little research available that has articulated an operational definition of global citizenship or produced evidence to illustrate the extent to which such experiences lead to global citizenship. Together, however, this diverse and complex research base builds a strong foundation on which to further examine the global citizenship outcomes of education abroad.

V ACADEMIC DEVELOPMENT

The most commonly cited purpose for outcomes assessment of education abroad is to document student learning. Educators and higher education administrators want to know more about the learning students achieve in result of having been abroad. Although a respectable research base on intercultural and language learning has begun to form, academic learning outcomes have been assessed to a much lesser degree. To the extent that this has been a focus in the literature, much has been discipline or course-specific or emphasized academic performance measures indicated by GPA (Clabby, 2008; Merva, 2003; Paige & Stallman, 2007). There has been even less work on assessing the extent to which education abroad participation impacts students' academic progression, such as increased confidence in their academic abilities or motivation to do graduate work (Hadis, 2005b; Meyer-Lee & Evans, 2007). There has, however, been considerable emphasis given to program assessment and evaluation, and this has mostly been in the area of assessing the academic learning environment and student support, rather than on measuring learning outcomes (Comp et al., 2007). As indicated by the widespread adoption of the Forum's *Standards of Good Practice for Education Abroad* (2009), many institutions seek to enhance academic quality by aligning

programming with best practices for student learning and development. Because of the interdisciplinary nature of education abroad and the great variation in programming, it has been extremely difficult to develop a uniform conceptual framework and methodology for the academic assessment of student learning (Immelman & Scnheider, 1998). With increasing numbers of students studying abroad each year and an environment calling for greater accountability for student learning, the need to assess and document what students are learning through these experiences is arguably more important now than ever before.

This fifth section reviews the literature on academic development in higher education in an attempt to arrive at an operational definition that aligns with the interdisciplinary nature of education abroad programming. Two dimensions of academic development, namely *academic self-concept* and *academic self-efficacy*, are presented and discussed in relation to existing outcomes research on education abroad programming. Theoretical and applied research on student-faculty interaction is discussed to explore the relationship between embedded education abroad programming and enhanced academic development.

Defining Academic Development

The impact of education abroad on academic learning outcomes has not been dealt with extensively in the literature. Although many in higher education are concerned with assessing what students are learning through these experiences, few studies have attempted to do this in a broad, encompassing way. Instead, most assessment of academic learning has focused on disciplinary knowledge. In other words, the assessment of disciplinary learning outcomes, such as engineering in Venice (DiBiasio & Mello, 2004) or biology in Costa Rica (McLaughlin & Johnson, 2006), generally takes place within the course context through assignments and grades (Meyer-Lee & Evans, 2007). Assessment of language proficiency gains has long been a mainstay of education abroad outcomes assessment and has been a relatively less complicated outcome to measure. The Oral Proficiency Interview (OPI) and the Simulated Oral Proficiency Interview (SOPI) are now widely used to measure language proficiency gains associated with education abroad (Vande Berg, Connor-Linton, & Paige, 2009).

What research exists on assessing academic outcomes of education abroad programming has relied on the grade point average to measure learning and intellectual development (Clabby, 2008; Merva, 2003). However, Astin (1993) argued that grades are hardly a perfect measure as they

generally reflect a student's performance relative to other students, rather than how much has actually been learned. Although the concept of grades is widely familiar, the method of their calculation and the standards applied vary enormously both within the U. S. and across the world where students enroll in academic institutions with differing academic cultures and approaches to grading. Pascarella and Terenzini (2005, p. 396) have added that grades are confounded measures, reflecting a combination of a student's previous academic achievement, general intellectual capacities and ability, academic skills, and personal traits such as motivation, discipline, and perseverance. In spite of these views, the GPA is the single most commonly used variable tied to measures of academic achievement.

If a goal of education abroad is to assist students in becoming confident, independent, and self-directed learners (Gray, Murdock, & Stebbins, 2002), it is conceivably more important to assess and document how their skills, learning strategies, and behaviors develop in result of studying abroad. Thus, a broader measure of academic development, as opposed to academic achievement or performance, is needed. In addition, such a measure would apply to all education abroad programs, irrespective of program duration, destination, or type. It is relevant to assess students' academic abilities before and after studying abroad, and how, over the course of an education abroad experience, their academic interests and approaches to learning are further developed and expanded. Moreover, it is essential to assess student commitment and involvement in the learning process and how this develops in result of studying abroad, particularly with how students balance their academic and social goals and persist in pursuing multiple alternatives to achieve those goals. Thus, a broad measure of students' learning outcomes is needed; or more specifically, a tool to assess how such experiences lead to positive changes in academic development (Praetzel, Curcio, & Dilorenzo, 1996).

Based on the existing literature and the recognition of the limitations associated with utilizing academic achievement as a reliable indicator of student learning, a model of academic development emerges as a desirable alternative and a more appropriate measure of student learning in education abroad outcomes research. Academic development is thus understood in relation to two interrelated dimensions: *academic self-concept* and *academic self-efficacy*. These dimensions align well with the overarching concept of academic development, have been clearly identified and discussed in the literature, and offer measurable constructs that resonate closely with the goals of undergraduate education abroad (see Table 2.3). A brief explanation of both within a higher education context follows.

Academic Self-Concept

Academic self-concept refers to a student's perception of his or her own academic abilities. It incorporates both cognitive and affective responses toward the self and is heavily influenced by social comparison (Bong & Clark, 1999; House, 1992; Reynolds et al., 1980; Reynolds, 1988; Waugh, 2002; Woodside, Wong, & Wiest, 1999). The research on academic self-concept indicates with consistency a strong relationship between academic self-concept and academic achievement. In particular, Reynolds (1988) found that academic self-concept is significantly and positively correlated with academic performance, as measured by students' GPAs. In much the same way, Liu and Wang (2005) found that academic self-concept is significantly related to students' commitment to and interest in academic course work. Moreover, Pascarella and Terenzini (2005) state that the existing research shows that institutional context, student involvement, and interactions with one's peers and faculty also lead to gains in academic self-concept.

The literature points clearly to the effect of institutional culture and campus environment on students' academic self-concept. In a large-scale study of more than 300 institutions, Szelenyi (2002) found that campus diversity was significantly and positively associated with academic self-concept. In particular, students on campuses where they encounter diverse viewpoints gain more in academic self-concept than do students on campuses characterized by less diverse points of view. Similarly, Berger (2002) also found a relationship between students' academic self-concept and institutional culture and environment.

A number of studies have found that the degree to which students pursue campus involvement is correlated with gains in academic self-concept. In particular, Astin (1993) drew on a Cooperative Institutional Research Program (CIRP) dataset of nearly 25,000 students who enrolled in more than 200 colleges and universities. He found that those who were deeply engaged in college experiences showed higher academic self-concept than those who were less involved. Overall gains in academic self-concept have been specifically linked to college experiences, such as service learning, participation in cultural awareness workshops, involvement in co-curricular activities, as well as with courses in which instructors use active and collaborative instructional methods (Pascarella & Terenzini, 2005).

Changes in students' academic self-concept also point to the importance of students' interactions with their peers and faculty members. According to Pascarella & Terenzini (2005), whatever the measure, the evidence consistently indicates that gains in academic self-concept are

positively associated with peer interactions. Socializing with peers, such as discussing course content with other students, enhances students' academic self-concept (Astin, 1993; Szelenyi, 2002). Chang (2001) suggests that these effects may be particularly powerful when the interactions are with peers of other races or ethnic groups. The nature of the processes underlying the beneficial outcomes of interacting with one's peers is unclear. Nonetheless, students' encounters with people different from themselves or with different knowledge, ideas, or beliefs lead to enhanced academic self-concept. These encounters are influential because they have the potential to stimulate reflection on one's own knowledge, beliefs and values, and lead to new ways of thinking about and understanding the world (Pascarella & Terenzini, 2005).

Literature dating back decades suggests that the outcomes of students' contact with faculty members are similar to outcomes that stem from student-peer interactions (Pascarella & Terenzini, 1976; Tinto, 1987; Wilson, et al., 1975). In general, the more contact between students and faculty, both inside and outside the classroom, the greater the student academic development (Kuh & Hu, 2001). Students derive significant benefits from talking with faculty members outside class, interacting with faculty members they perceive to be supportive and intellectually challenging, being a guest in a faculty member's home, etc. (Astin, 1993; Szelenyi, 2002; Woodside, Wong, & Wiest, 1999). Gerdes and Mallinckrodt (1994) found a positive relationship between the frequency of interaction between students and faculty members and gains in academic self-concept. Few studies have examined whether peers or faculty members are the more influential group, but the literature suggests little doubt that students' contact with peers and faculty members plays a central role in how students think about themselves.

As is the nature of embedded education abroad programming, students spend a great deal of quality time with faculty leaders inside and outside the classroom. This close interaction occurs over the duration of a given semester and is intensified during the international travel component of the course. As the program leader, the faculty member works closely with students while abroad, often serving multiple roles as professor, guide, mentor, disciplinarian, etc. The literature on academic self-concept suggests that the design of embedded programs, where students are exposed to frequent and intense interaction with faculty members, should foster overall academic development gains. Although peer interactions are influential, it is not clear in the literature how interacting with fellow American students while abroad impacts changes in academic self-concept. As participants in embedded programs typically share housing and spend considerable time together in both academic and social activities, more research is needed to understand the learning outcomes associated with

such peer interactions. Some early research on semester-length programs shows a negative relation between interacting with fellow American students and academic performance (Carlson et al., 1990).

Academic Self-Efficacy

The basic idea of self-efficacy is built on the perception that one can produce and regulate events in his or her life. Similar to the concept of locus of control, self-efficacy, according to Bandura (1986) is defined as people's "beliefs about their capabilities to produce designated levels of performance that exercises influence over events that affect their lives" (p. 71) .According to Pajares (2002), self-efficacy can be explained as the confidence people have in their ability to do the things they try to do. Therefore, academic self-efficacy would be concerned with the degree to which students are self-directed, believe they have the capabilities to take responsibility for their own academic performance, and exert control over their academic environment (Cassidy & Eachus, 2000; Eachus, 1993; Gresham, Evans, & Elliott, 1998). According to Perry (1991), students who attribute their academic success to their own efforts are more likely to demonstrate higher levels of academic self-efficacy than are students who believe their success is more likely a function of something other than their own ability, motivation, or effort. Thus, a student with high academic self-efficacy has a sense of control over his or her own academic fate and believes that he or she can learn and/or produce whatever is necessary to do well academically.

A wealth of empirical evidence shows that academic self-efficacy affects academic performance (Choi, 2005; Pajares, 2002; Pascarella & Terenzini, 2005; Sander & Sanders, 2003). In a meta-analysis of eleven studies on academic self-efficacy and academic performance, Multon, Brown and Lent (1991) found an average effect size of .35. In other words, higher levels of academic self-efficacy lead to better overall academic performance. Interestingly, Eden and Kinnar (1991) found a positive correlation between self-efficacy and increased volunteerism. There is also some evidence to suggest that specific college experiences impact students' academic self-efficacy. For example, Pascarella, et al. (1996) found that honors program participation and fraternity or sorority membership have a positive benefit to students in terms of their academic self-efficacy. Sax and Astin (1997) found that participation in community service and service-learning experiences during college also lead to higher levels of academic self-efficacy.

Understanding academic self-efficacy is particularly important in higher education because the autonomy and independence of students is essential to their success. The literature suggests that education abroad experiences, like other high impact undergraduate experiences, may lead to

enhanced academic self-efficacy. Unfortunately, there are few published studies that have specifically explored the relation between education abroad programming and gains in academic self-concept.

Table 2.3 *Dimensions of Academic Development*

Academic Self-Concept	Academic Self-Efficacy
Description	
A student's perception of his or her own academic abilities.	A student's perception of his or her capabilities to take responsibility for his or her own academic performance.
Core Assumptions	
Expanding academic interests; Learning from others	Choice; Effort; Persistence
Sample Perspectives	
"I relate new ideas to those in other topics or other courses whenever possible."	"I evaluate my performance against the academic standards I set myself."
"I interact with my peers in solving problems in academic work."	"I try different strategies to achieve my academic goals when I have difficulties."

Though the distinction often becomes blurred, academic self-efficacy and academic self-concept are not interchangeable constructs (Bong & Clark, 1999; Choi, 2005). Academic self-concept relates to an individual's evaluation of his or her academic and intellectual abilities. Academic self-efficacy is concerned with how one judges his or her own academic capabilities to meet expectations. However, these two constructs are interrelated and may moderate each other (Gresham, Evans & Elliott, 1998). According to Bandura (1986), people cultivate self-efficacy in activities that give them a sense of self-worth and thereby, enhance their self-concept. In this way, undergraduate students with relatively high academic self-efficacy may be attracted to, or at least not dissuaded by, the unknown challenges of studying in a different and less familiar educational context. As high achieving students, these students are self-directed and confident that they have the capabilities to take responsibility for their academic performance. These students believe they have the academic abilities to do well in such international experiences. Thus, those drawn to education abroad are theoretically likely to have high degrees of academic self-efficacy and academic self-concept at the outset of an education abroad program. Moreover, the academic and intercultural

challenges associated with an education abroad experience should further challenge and extend students' academic development.

Education Abroad & Academic Development

Faculty members and administrators frequently report they recognize changes in their students after they return from abroad. It is said participants demonstrate a higher-than-average curiosity and greater interest in academic matters, are less distracted and more focused on their academic studies, and seemingly study more for personal interest than for merely earning high grades (Hadis, 2005b). While such anecdotal information speaks encouragingly of the impact of education abroad, few studies have broadly examined the academic learning outcomes associated with studying abroad. Kauffmann, et al. (1992) conducted an early study that looked broadly at intellectual development as it relates to foreign language learning, the expansion of learning in the discipline, and the general knowledge gains that result from education abroad experiences. Like the SAEP study discussed earlier (Carlson et al., 1990), this study found that students make significant foreign language proficiency gains while studying abroad. The authors also found that students return to the U.S. with new perspectives on their disciplines and with more positive attitudes toward learning. Similarly, Carlson et al. (1990) found that after studying abroad, students considered getting good grades and learning facts to be less important. Instead, participants came to value systematic thinking, having greater familiarity with different schools of thought, and acquiring knowledge from different disciplines and from independent work. Returning students also expressed the value of developing and defending one's own point of view.

In a related, longitudinal study, Kauffmann and Kuh (1984) found that such changes persist over time. Utilizing the Omnibus Personality Inventory (OPI) administered over multiple points in time, this study showed that studying abroad yielded changes in three key dimensions. First, returning students demonstrated increased interest in the arts, literature, and culture, thus suggesting an important general education component to education abroad. Secondly, students showed an increased interest in the well-being of others, akin to the dimension of social responsibility described earlier. The authors explained that the experience of living abroad encouraged students to not only reflect a change in their ideas but also in their behaviors upon returning to the U.S. Thirdly, the results showed that students returned with increased self-confidence. In particular, students' motivation to learn and appreciation for reflection increased, both of which are behaviors the authors noted as necessary for intellectual development and academic learning.

Juhasz and Walker (1987) conducted a well-cited study on the impact of education abroad on students' perceptions of their own self-efficacy. Self-efficacy dimensions included social and individual development related to independence, initiative, problem-solving, communication, and academic abilities. For the purposes of this study, self-efficacy was understood as the perceived level of competence and ability to perform specific accomplishments related to the goals of the education abroad program in Italy. Pre-/post-test results showed that students' overall self-efficacy increased; however, these increases were mostly with regard to skills necessary for successfully navigating the international and intercultural aspects of living and traveling abroad. Students were less confident about maintaining their GPAs, concentrating on their academic responsibilities, or minimizing academic time management problems. In a similar study on general self-efficacy and education abroad participation, Kehl (2005) did not find evidence of gains in self-efficacy in result of studying abroad nor any relationship between program length and the development of self-efficacy.

In a more recent study, Hadis (2005b) wanted to know why students bring their academic endeavors to the forefront of their interests when they return from abroad. To address this, Hadis examined what he refers to as the determinants of "academic focusing" among participants. In this context, Hadis refers to academic focusing as "setting a high priority on learning for the sake of expanding knowledge and cognitive skills" (p. 61). The results showed that students who were more open-minded and independent made significant gains in post-education abroad academic focusing. Thus, Hadis suggested that international educators strive to enhance open-mindedness and decision-making independence amongst students. Educators could do this by encouraging greater interaction with local students and developing program activities that leave room for students to assume responsibility and make decisions.

Some related research links sojourning abroad with perceived gains in communication and language learner self-efficacy. Milstein (2005) relies on Bandura's theory of self-efficacy (1986) to understand how sojourning abroad impacts perceived changes in communication self-efficacy. The study found that the vast majority (95.5%) of a sample of 212 teachers who spent at least one year in Japan reported a perceived increase in self-efficacy after the sojourn. The study also showed that the more challenging respondents rated their time in Japan, the more they reported perceived increases in self-efficacy. Although this study does not specifically address academic self-efficacy, it does demonstrate the relation between sojourning abroad and gains in self-efficacy. In a related study, Amuzie and Winke (2009) examined how language learning beliefs change due to study abroad experience. The results demonstrated that students come to believe more strongly in the importance

of learner responsibility and autonomy. They gradually think less about the role of the teacher as care-taker of their learning and become more willing to accept personal responsibility to achieve their language learning goals, such as independently pursuing efforts outside of class to study and practice using the language. The authors also found that those who spent longer periods abroad had significantly stronger beliefs in learner autonomy and self-efficacy.

Summary

The research on academic self-concept and academic self-efficacy has a long and well-developed history in higher education. Numerous studies have provided clear and convincing evidence to demonstrate the influential roles that institutional culture and campus environment, student involvement, interaction with peers and faculty members, and other high impact experiences have to boost students' academic development. Although the research on education abroad outcomes has seldom examined the explicit relation between international education experiences and academic development, the limited research available provides a foundation demonstrating that students returning from education abroad experiences have more positive perceptions of themselves as confident, independent, and responsible learners. Although this research has focused nearly exclusively on traditional semester or academic year programming, the literature suggests that embedded programs, conducive to high impact experiences with intense peer and faculty interaction, should theoretically lead to measurable gains in academic development.

VI TRANSFORMATIVE LEARNING THEORY & EDUCATION ABROAD

All too often, claims are made of the transformative potential of education abroad. These claims cite that students are interculturally and intellectually transformed by their experiences abroad. What this means exactly or what happens during the process of studying abroad that leads to such transformative growth is seldom discussed. Although there is ongoing research that examines causal relations between specific program elements and student learning outcomes, more is needed to understand the actual process of transformative learning. This study is positioned within Mezirow's *Transformative Learning Theory* (Mezirow, 1978, 1991, 1996, 2000), which offers a theoretical perspective to help explain why and how embedding international experiences into residential courses should enhance academic development and lead to gains in global citizenship.

Transformative learning has been important in the development of adult education since Jack Mezirow (1978) proposed it more than 35 years ago as a theoretical description of the process through which one's views and interpretations of experiences are transformed (Brock, 2009). Mezirow defines transformative learning as a process of exploring, assessing, and working to change one's frames of reference (Mezirow, 2000). Kasl and Elias (2000) add that transformative learning is the expansion of consciousness characterized by "new frames of reference, points of view, or habits of mind as well as by a new structure for engaging" in the world (p. 233). Transformative learning theory stems from the work of Chomsky, Piaget, Kohlberg, Habermas, and various other psychologists and sociologists who have theorized about adult learning and development. The theory has at its core constructivism, critical theory, and deconstructivism in social theory.

According to Mezirow (1991), transformation is a deep and structural shift in the basic premises of one's thoughts, feelings, and actions. It represents an evolution in the way one filters, engages, and interprets the world. Learning is understood as a process of making meaning or "using prior interpretation to construe a new or revised interpretation of the meaning of one's experience as a guide to future action" (Mezirow, 1996, p. 162). Mezirow makes a distinction between *meaning schemes*, which are specific attitudes, beliefs, and value judgments that constitute interpretations of experiences and *meaning perspectives*, which are frames of reference or the structure of assumptions and expectations through which one filters experience (Hunter, 2008). Meaning perspectives provide the context for making meaning, within which one chooses what and how an experience is to be understood and construed (Mezirow, 2000). Meaning perspectives are acquired through the process of socialization and acculturation and become the criteria through which we view and evaluate the world (Golay, 2006). In other words, what is perceived through experience is filtered through one's frame of reference.

The transformative learning process begins with an experience that serves as a *disorienting dilemma*, such as a problem or challenge. In an education abroad context, for example, a disorienting dilemma can be a problem, challenge, or confusing encounter that a student experiences in the course of establishing new routines in the host culture (Hunter, 2008). This can arise as a result of a student's daily interactions within the host community or the new academic environment, such as negotiating the subtleties of living with a local family or making friends with local students, confronting different and challenging expectations within the academic program, or navigating the complexities of internship assignments. According to Golay (2006), the degree to which these

international and intercultural experiences are incongruent with students' previous experiences or existing frames of reference will influence how disorienting they find the experiences.

Experiences that conflict with one's frames of reference ultimately gives rise to the acceptance of new meaning perspectives or are reorganized into existing meaning perspectives. Whether the learning that ensues is normative or transformative depends on the individual's reaction to the experience. Experiences that cause one to reorganize existing meaning schemes in order to accommodate new experiences represents learning that leads to normative development. Normal developmental growth tends to happen gradually over time, and often one is unaware of the changes. Transformative learning, however, requires an intentional act of learning on behalf of the individual. Learning occurs when experiences challenge the individual to confront the fundamental reasoning behind his or her most basic understanding of the way the world should work, thus prompting a shift in one's meaning perspectives. Once the individual becomes aware that a disorienting dilemma has challenged his or her worldview, the willingness to actively engage with the new learning will determine whether the experience will be transformative.

Although transformative learning theory was originally developed as a ten step model leading to new perceptions of the world (Mezirow, 1978), Merriam and Caffarella (1999) have codified the learning process into three phases, including *critical reflection*, *reflective discourse*, and *action*. Through critical reflection, the learner reflects on, evaluates, and explores his or her long-standing, culturally constructed attitudes, values, and beliefs in the face of unfamiliar and challenging experiences (Brock, 2009; Mezirow, 2000). Reflective discourse refers to the active dialogue the learner has with others to better understand the meaning of experiences. The dialogue is devoted to searching for understanding of issues or beliefs, assessing the evidence and arguments of differing points of view, and being open to looking at alternative points of views (Mezirow, 2000). It may include interaction within a group or between two persons. In the context of an embedded program, this may ideally occur between a student and the faculty member. Action is essential to the formation of new meaning perspectives. Through action, one pursues opportunities to act on evolving commitments and to test one's growing convictions. Critical reflection, reflective discourse, and action occur in complex interpersonal, intercultural, and institutional settings. According to Mezirow (2000), transformative learning must be understood in the context of cultural orientations embodied in one's frames of reference which shape one's preferences, willingness, and readiness to engage new ways of living, knowing, and acting in the world.

Hunter (2008) has argued that the role of international educators should be to actively engage students in this transformative learning process by intentionally incorporating these three essential processes into education abroad program design and implementation. She explains that if the goal of education abroad is to create global citizens capable of interacting effectively and responsibly in the world, then international educators should encourage students to take action on their new learning, bringing insights full circle, either in their personal choices or in the civic activities in which they engage. She explains, for example, that a service learning or volunteer experience as part of an education abroad program provides a wonderful opportunity for students to engage in experiences that can lead to transformative learning. Students, who have such experiences that potentially challenge their frames of reference, should be encouraged to critically reflect on and discuss their experiences in ways that lead them to constructive and purposeful action. Failure to intervene in student learning may undermine the transformative potential of such experiences, or worse, breed resistance with students for further learning and development (Golay, 2006; Johnson Brubaker, 2006; Vande Berg, 2007).

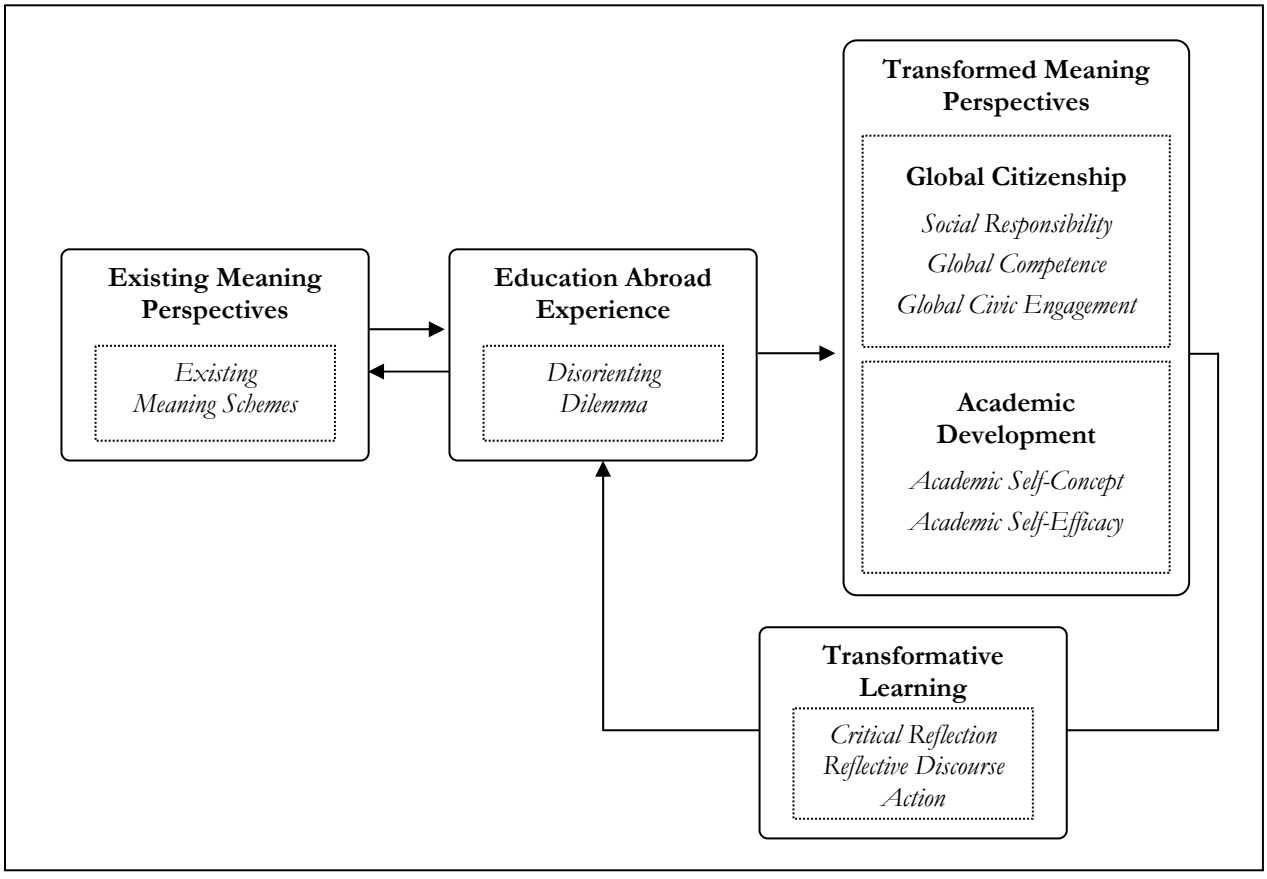
Figure 2.1 illustrates the process of how an education abroad experience can lead to a transformative learning process toward global citizenship and enhanced academic development. Students come to education abroad experiences with preexisting meaning schemes and meaning perspectives. Students have intellectual and intercultural experiences abroad within their academic and social environments that challenge their existing knowledge, beliefs, value judgments, and feelings. Their worldviews are correspondingly challenged by these new experiences in the host culture, potentially leading to emotional and intellectual confusion. This confusion, or disorienting experience, has the potential to lead to changes in students' meaning perspectives, prompting intercultural and intellectual growth or their preexisting meaning perspectives are reorganized to accommodate the experience. For some students, these experiences can instigate a major shift in their frames of reference based on a reinterpretation of themselves as engaged global citizens and self-directed, confident, and responsible learners. Through critical reflection, reflective discourse and action, the experiences are solidified into new meaning perspectives, thus resulting in transformative learning and development.

To further illustrate this learning process in education abroad and the difference between normative and transformative learning, consider the following examples. A typical student chooses to participate in an embedded education abroad program to Mexico, where for two weeks the group will participate in a service-learning project. Prior to departure, the faculty leader introduced students

to the region of the country, the rationale and goals of the project, and generally prepared the students on intercultural issues for engaging with the local community. During the time in Mexico, the student persevered with the heavy demands of the project and enjoyed spending time with other students on the program and with the local members of the community overseeing the work. Although the food and living situation were very uncomfortable, the student adjusted reasonably well and returned to the U.S. feeling confident and satisfied with her experiences abroad. She learned some Spanish, developed new knowledge and skills related to the project, and expanded her knowledge of Mexico. This student undoubtedly learned a great deal over the course of the semester and gained valuable new information about Mexican culture. This is a normative learning experience. The student's meaning schemes were disrupted by the experience abroad, though her overall meaning perspectives were not transformed. She merely adjusted her meaning perspectives to accommodate her international experiences.

By contrast, transformative learning in the very same context would inevitably look quite different. The student's response to the disruption of meaning schemes would still result in learning, but the experience would incite contemplation and reflection. The experiences in Mexico would

Figure 2.1: *Transformative Education Abroad Model (TEAM)*



encourage the student to begin asking herself questions about global poverty, economic injustice and environmental awareness, for example. She would engage others in discussions about global interdependence, world events, and international fair trade issues. Her expanded worldview would lead her to want to explore new ways of engaging productively in the world and to contribute to civically oriented activities. Ultimately, this student's learning process, which hinges on critical reflection, discourse, and action, will led to a significant transformation in attitudes and behaviors needed to support personal growth and development.

Along these lines, Parks Daloz (2000) has explored the nature of the transformative learning process that occurs as a person develops a sense of social responsibility. Parks Daloz builds on Mezirow's transformative learning theory to discuss four conditions that contribute in significant measure to transformation for the common good: *the presence of the other*, *reflective discourse*, *a mentoring community*, and *opportunities for committed action*. These conditions align ideally with the structure of an embedded education abroad program and with the many recommendations Parks Daloz offers to educators who are concerned with leading students toward a greater sense of social responsibility. Among these recommendations, he states that educators should create experiential learning opportunities (i.e., service learning, education abroad, etc.) that engage students in tough issues and dilemmas, encourage critical reflection on these issues, and press students to take action on their learning. He goes on to suggest that educators should encourage reflective discussion of "the way things are" and facilitate opportunities for students to come together and reflect with one another about their hopes and aspirations for a better world. Others have similarly concluded that the most powerful tool for fostering transformative learning is providing students with learning experiences that are personally engaging and stimulate reflection (King, 2004; Taylor, 2007).

In a study on fostering citizen action, Lange (2004) found that transformative learning is not just a process involving a change in worldview and frames of reference, but it is also an "ontological process where participants experience a change in their being in the world including their forms of relatedness" (p. 137). The examination of an action research study of 14 participants of a cooperative extension course showed that participants shifted into new modes or relatedness with their material, social, and environmental realities, and that it became imperative for participants to enact their sense of social and environmental responsibility.

In a later interpretation of Transformative Learning Theory, Mezirow (2000) acknowledges that a purpose of education is to help students realize their potential to become more liberated, socially responsible and autonomous learners, and argues that learner autonomy is a competency

acquired through transformative learning. He goes on to say that transformative learning inherently creates an appreciation for participatory democracy by developing capacities that foster autonomy, self-development, and self-governance. The learning process enables students to develop capacities for critical reflection and participation in discourse on contested points of view (p. 28). He explains that learners become more aware of the "context of interpretations and beliefs, critically reflective of assumptions, able to participate freely and fully in a rational discourse to find common meanings and validate beliefs, and effective in acting on the results of this reflective learning process" (p. 29). Hunter (2008) concurs, stating that education abroad, in particular, affords students a space and experiences through which to expand their worldviews and to cultivate a sense of self-efficacy that can enhance their academic development.

Many have written on the need for the development or application of a culture-learning theory to education abroad research (Golay, 2006; Hoff, 2008; Hunter, 2008; Johnson Brubaker, 2006). Transformative learning theory appears to be a useful model for understanding and facilitating the learning experiences of college students (Brock, 2009). There have been several who have argued that it is an ideal theory to explain the culture-learning and transformation process associated with education abroad. For example, Whalley (1996) built on Freire's (1970) concept of "conscientization" as evidence of using education to transform one's frame of reference as elucidated by Mezirow. Whalley applied the theory in a qualitative study of 23 Canadian high school students and 24 Japanese university students studying abroad in each respective country. He concluded that learning did align with transformative learning theory and that education abroad experiences do result in the transformation of meaning perspectives. Similarly, Golay (2006) utilized transformative learning theory in her study examining the effects of education abroad on the development of global-mindedness. She found that after spending one semester abroad, students returned with significant gains in global-mindedness. She attributed these gains to the added emphasis the education abroad program placed on critical reflection. Golay explained that even though education abroad participants naturally reflected on their experiences, it is essential education abroad programs integrate structured opportunities for critical reflection and discussion.

In summary, transformative learning theory has been critiqued, tested, and revised throughout the past three decades to arrive at a definitive framework at how adults learn (Kitchenham, 2008). Ideally suited to explain the transformative learning that leads to global citizenship and academic development, the theory describes a developmental process that precipitates a deep and structural shift of perspectives in students through education abroad experiences (Hunter, 2008). The

Transformative Education Abroad Model (TEAM) offers a theoretical schematic to explain the process of how a facilitated or guided education abroad experience can initiate a transformative learning process, leading students toward global citizenship and enhanced academic development. When students are challenged and supported to reflect critically on their experiences, when they are encouraged to engage in new areas of discourse, and when they are encouraged to pursue opportunities to actively integrate their learning into their lives after returning from abroad, then—and only then—is the possibility of true transformation possible.

VII SUMMARY

The attention to assessing student learning outcomes in higher education has stimulated interest in understanding what students are learning through education abroad programming. International educators are asked to justify the value of studying abroad, but have been hindered by the general lack of valid and reliable data needed to respond to requests for documented learning outcomes. The literature suggests that although education abroad outcomes assessment research has grown increasingly complex and diverse over the years, more work is needed to assess and document what students are learning abroad. Because the largest proportion of students now enroll in programs less than eight weeks in duration, research and scholarship that examines program duration and student learning outcomes is emerging, but the results have been mixed. Very little research has specifically examined student learning outcomes associated with embedded programming.

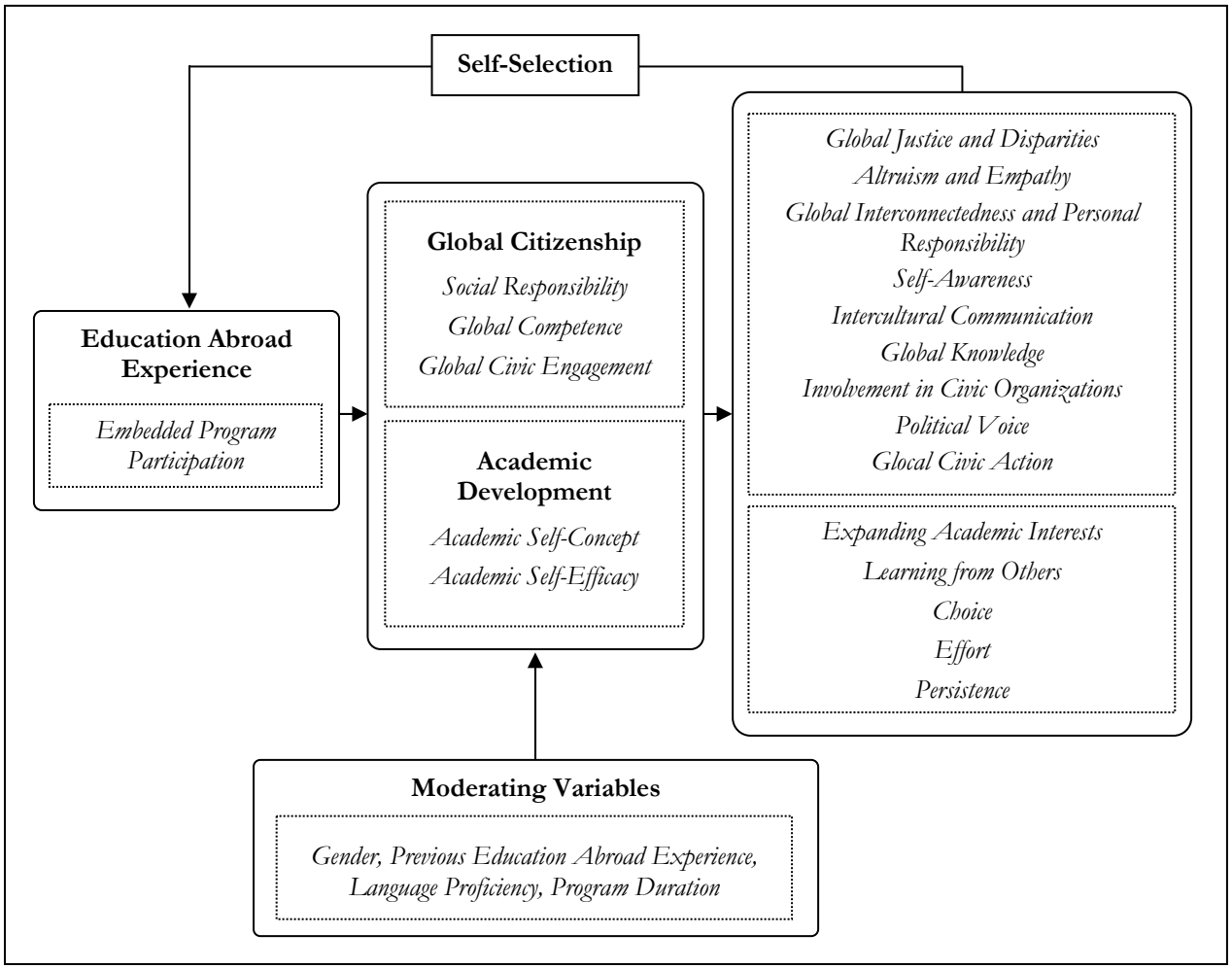
Global citizenship has become a widely used concept in much of the language to promote the benefits of education abroad that seems to be universally understood but is rarely defined or explained. Although no one uniform or commonly accepted definition of global citizenship emerges from the academic literature, social responsibility, global competence, and global civic engagement are three overarching dimensions consistently and pervasively noted across the many disparate perspectives. These interrelated dimensions align well with the prominent theoretical and philosophical perspectives described in the literature, and articulate ideas that resonate with the goals of undergraduate education abroad.

The impact of education abroad on academic learning outcomes has also not been addressed extensively in the literature. Although a respectable research base on intercultural and language learning is forming, broad academic learning outcomes have been assessed to a much lesser degree.

Due to the complex limitations associated with utilizing academic achievement as a reliable indicator of student learning, a more appropriate model focusing on academic development as a measure of student learning has emerged from the literature. Academic development is thus broadly understood in relation to two interrelated dimensions: academic self-concept and academic self-efficacy. These two dimensions have been clearly identified and discussed in the literature and closely resonate with the goals of undergraduate education abroad.

Figure 2.2 illustrates the research model that has developed from the literature and which underpins the focus and direction of this study. Students come to an education abroad experience with preexisting meaning perspectives. As the student engages with the new culture, these experiences may challenge students' existing frames of reference and worldviews in a transformative way, leading to enhanced academic development and gains in global citizenship. Within each dimension of global citizenship and academic development are multiple sub-dimensions that further

Figure 2.2: *Research Model of Education Abroad Learning Outcomes: Global Citizenship and Academic Development*



refine and demonstrate the complexity of each construct. The self-selection loop illustrates the recognition that studying abroad is an activity for which students select to participate. Students who already have high degrees of global citizenship and academic development may be self-selecting to participate in these experiences. Therefore, studying abroad becomes a means through which certain students can exercise their global citizenship and/or pursue academic challenges for which they perceive themselves to already possess the abilities and capabilities needed to be successful. Among the moderating variables shown to be influential in driving student learning outcomes that will be addressed in this study are gender, previous education abroad experience, language proficiency, and program duration.

CHAPTER THREE: METHODOLOGY

I INTRODUCTION

This study builds on education abroad, global citizenship and academic development literatures to address two primary research questions: 1.) to what extent does participation in embedded education abroad programming mediate changes in students' global citizenship, and thereby, *social responsibility*, *global competence,* and *global civic engagement*; and, 2.) to what extent does participation in embedded education abroad programming enhance academic development, specifically with regard to *academic self-concept* and *academic self-efficacy*?

Additionally, the study seeks to demonstrate the extent to which traditionally underrepresented populations participate in education abroad and how participation has varied over time and by program type. This component of the study addresses four secondary research questions: 1.) does contemporary education abroad remain mostly an opportunity for white, middle-class, female students majoring in the social sciences; 2.) what enrollment trends in the education abroad population have manifested between the 2005/06 and the 2008/09 academic years; 3.) how does the student profile vary by education abroad program type; and, 4.) to what extent does education abroad impact academic performance, as indicated by cumulative grade point average (GPA)?

To address these questions, this study employs two distinct yet complementary methodological approaches. A quasi-experimental study utilizing a nonequivalent control group design is employed to address the primary research questions. The study addresses the secondary questions by conducting a comprehensive, four-year enrollment analysis including all degree-seeking Penn State students who studied abroad in academic years 2005/06, 2006/07, 2007/08, and 2008/09. This first part of the chapter describes in detail the quasi-experimental study design, the student sample, the variables of interest, instrumentation, and the data collection and analysis. This is followed with a description of the methodology used to conduct the enrollment analysis, including a description of the population, variables of interest, data collection and approaches to data analysis. The methodological limitations of the overall study and its delimitations are also discussed.

II QUASI-EXPERIMENTAL STUDY

Design

The study was designed to assess the extent to which embedded education abroad programming leads to measurable gains in global citizenship and academic development. Ideally, the study would randomly assign undergraduate students to embedded courses, of which half of each class would participate in the international travel component and half would not. The educational experience for the two groups would then vary only in that half of the students would have traveled abroad with the course professor. In actuality, random assignment of undergraduate students to embedded education abroad programs is not possible for obvious educational and practical reasons. Typically, enrollment in an embedded course requires students to participate in and pay for the international travel component.

As such, a quasi-experimental, nonequivalent control group design featuring the inclusion of treatment and match courses was utilized (Krathwohl, 2004; Singleton & Straits, 2005). A nonequivalent control group design is commonly used in studies such as this, when a true experimental design is not feasible and when the study requires working with intact or pre-formed groups (Krathwohl, 2004). As such, this quasi-experimental design positions embedded programs with their international travel component as the treatment group. For each embedded course, a match course is designated and serves as the control group. Match courses are similar in focus, credit, length, and content, but do not have an embedded travel component. Considerable effort is taken to minimize selection differences by pairing treatment and control courses so they are as similar as possible. In theory, the principal difference between the two groups is the treatment, which in this study is the international travel component.

Population & Sample

In Pennsylvania, 707,132 students enrolled in degree-granting institutions during the 2006/07 academic year (NAFSA, 2009). Of that number, 15,170 students studied abroad that year, representing a nearly 8% increase from the previous year (IIE, 2008). Although only 2.15% of the total higher education population studied abroad, this level of participation consistently ranks Pennsylvania among the ten largest sending states in the country. The Pennsylvania State University (Penn State) was the 4th largest sending institution in the nation, having sent more than 2,000 students abroad in 2007/08 (IIE, 2008). As the premier flagship, land-grant institution of the

Commonwealth of Pennsylvania, Penn State provides a diverse and sizable education abroad population with which to conduct this institution-specific study. (The enrollment analysis complementing this study provides an in-depth analysis of Penn State education abroad enrollment since 2005/06).

Penn State has made preparing its students for global citizenship a central goal of undergraduate education. Global citizenship is written into the University's strategic plan, and promoting education abroad programming is central to these efforts. Specifically, the 2009-2013 strategic plan for the University Office of Global Programs (UOGP), entitled, "Global Citizenship, Global Leadership," states "Our vision is for all Penn State students to become global citizens who think globally while acting locally, and for Penn State to attain global leadership in scholarship and international engagements" (n.d.). The plan articulates a strategy which places partnership with faculty central to its goal of making global citizenship a hallmark of university teaching and learning.

UOGP is the primary administrative unit for education abroad at Penn State. Generally, any student, regardless of campus assignment, who chooses to study abroad is accounted for by UOGP, which is located on the University Park campus. In 2005, the office was tasked with the responsibility to provide central oversight of embedded programs. Prior to this date, there was no central accounting for or recognition of these programs. During the 2005/06 academic year, nearly 650 degree-seeking students participated in embedded programs. That number has since grown, and in 2008/09, the total enrollment stood at over 800 degree-seeking students. Within this timeframe, the number of embedded programs has grown, and in 2008/09, over 60 were recognized by UOGP. These programs represent nearly every discipline, every Penn State campus, and destination in nearly every corner of the globe.

Penn State's network of 24 campuses provides diversity in the student profile, while offering one consistent, centralized education abroad structure. Although each campus has a degree of autonomy, Penn State is one university with campuses geographically dispersed throughout the Commonwealth of Pennsylvania. The University Park campus is home to roughly 56% of all Penn State students, however, and is often erroneously referred to as the "main campus". Because not all Penn State campuses offer four-year resident programs, students at these campuses either terminate with an associate's degree or transfer, usually to University Park, to complete a bachelor's degree. As such, these campuses more actively promote short-term, faculty-led programs for their students, and rely on such programs as a principal means through which to internationalize the curriculum.

Faculty from the Altoona, Abington, Erie-Behrend, Dubois, and University Park campuses

were invited to participate in this study. These campuses are geographically dispersed within Pennsylvania, and each has considerable experience with facilitating embedded programs. Also, each of these campuses offers bachelor's degree programs. Each campus has at least one education abroad coordinator whose assistance with this study was instrumental. These coordinators serve as primary liaisons to the campuses for the purposes of this study, and all were closely involved in the selection of courses, communication with students and faculty, and administration of pre- and post-test questionnaires. The study researcher traveled to each campus before initiating the study to seek the input of campus coordinators and to invite the collaboration of campus faculty. At the University Park campus, where the study was based, the researcher communicated directly with individual faculty members leading embedded programs.

The sampling frame includes embedded programs taking place during the spring 2009 semester on the five selected Penn State campuses. Eleven embedded courses were selected, with class enrollments ranging from 7 to 27 students per course. Participating courses were selected in collaboration with the campus-based education abroad coordinators but generally included all embedded programs occurring during the data collection timeframe. As the University Park campus offers a wide range of embedded programs, a purposeful sample of courses was selected to best represent college and discipline diversity. The final list of courses included only those in which the individual course professors gave permission to administer the pre- and post-test survey questionnaires during class time. All enrolled students in both embedded and match courses were requested to complete the pre- and post-test questionnaire.

A match course was designated for each embedded course. These courses were similar in focus, credit, length, and content but did not have an embedded travel component. Care was taken to minimize selection differences by designating courses that were as similar as possible to the embedded courses. When an exact match (course title and number) was not available, a similar disciplinary course, preferably taught by the same professor, was designated. In some cases, courses were cross-listed between departments, and as such, were listed with different course numbers. For simplicity, one consistent course number and title was used as a principal course identifier for each course. Class enrollments ranged from 9 to 64 students per course. Table 3.1 lists the final 11 pairings of embedded and match courses.

Table 3.1 *Embedded and Match Courses*

Pair	Campus	Embedded Education Abroad Course		Residential Match Course	
1.	Abington	IST 297B	IST in Germany	IST 240	Introduction to Computer Languages
2.	Abington	CRIMJ 499	International Studies: Sport and Crime	CRIMJ 200	Sport and Crime
3.	Altoona	ENGL 299	British Literature: The London Perspective	ENGL 222W	British Literature from 1798
4.	Altoona	FR 297A	Study abroad Quebec	FR 003	Intermediate French
5.	Dubois	SPAN 197	Special Topics: Spain and its Majesty	SPAN 002	Intermediate Spanish
6.	Erie-Behrend	IT130	Italian American Culture and Civilization	IT130	Italian American Culture and Civilization
7.	Erie-Behrend	INTST 497C	Spain: A Cultural Encounter	SPAN 130	Iberian Civilization
8.	University Park	LLED 412	Teaching Language Arts in Secondary Schools	LLED 420	Adolescent Lit. & Literacy Media Literacy in Classroom
9.	University Park	ENGR 497D	Leadership and Innovation for Meeting 21st Century Water Needs	CE 370	Introduction to Environmental Engineering
10.	University Park	HRIM 498A	International Hospitality Management	HRIM 415	International Cuisine
11.	University Park	RPTM 497	International Field Studies on Tourism, Society, and the Environment	RPTM 300Y	Tourism Foundations

Variables of Interest

Course membership (Embedded Education Abroad Course or Residential Match Course) is the dichotomous independent variable. Each dimension of global citizenship (Social Responsibility, Global Competence, and Global Civic Engagement) and academic development (Academic Self-Concept and Academic Self-Efficacy) are the continuous dependent variables. Within each dimension of global citizenship and academic development are multiple sub-dimensions that further

refine the two dependent variables (see Table 3.2).

Internal and external moderating variables (Medina-Lopez-Portillo, 2004) include participant demographic data (i.e., gender, age, and race/ethnicity) and previous internationally oriented experiences. For the purposes of this study, internationally-oriented experiences includes the number of times the student traveled internationally before enrolling in the present course, whether the student has studied abroad before, and if he or she has proficiency in languages other than English.

Table 3.2 *Continuous Dependent Variables by Sub-Dimension*

Dependent Variables, Dimension, & Sub-Dimension
Global Citizenship
1. Social Responsibility
a. Global Justice and Disparities
b. Altruism and Empathy
c. Global Interconnectedness and Personal Responsibility
2. Global Competence
a. Self-Awareness
b. Intercultural Communication
c. Global Knowledge
3. Global Civic Engagement
a. Involvement in Civic Organizations
b. Political Voice
c. Glocal Civic Activism
Academic Development
1. Academic Self-Concept
a. Expanding Academic Interests
b. Learning from Others
2. Academic Self-Efficacy
a. Choice
b. Effort
c. Persistence

Instrumentation

Statistically reliable and valid scales were developed, because there are no widely accepted instruments to reliably measure the extent to which international educational experiences enhance academic development and lead to gains in global citizenship,. The two scales were developed as one

questionnaire, but with slightly different pre-test and post-test versions. The pre-test version of the questionnaire has four distinct sections. The first section solicits information on course characteristics, such as destination, length, and reasons for taking the course. The second and third sections consist of 75 items that form the global citizenship and academic development scales, with each dimension of the two constructs presented in distinctly ordered question sets. The final section gathers demographic and related information such as gender, age, and previous international experience. The post-test version has only three sections. The first and second sections consist of the same 75 items that assessed global citizenship and academic development on the pre-test version. The third section includes a set of 10 course evaluation questions. In order to allow the research to pair pre-test and post-test questionnaires to an individual respondent, space was made available on both versions of the questionnaire for students to list the last four digits of their Penn State ID numbers. See Appendices A and B for the final questionnaire, inclusive of both the global citizenship and academic development scales.

Chapter 4 describes in considerable detail the process of developing and refining the global citizenship and academic development scales (DeVellis, 1991). The methodology employed in this scale development process was multi-faceted, including two expert face validity trials conducted in 2008, extensive exploratory and confirmatory factor analyses, and a series of three, small-group interviews utilizing Nominal Group Technique (Delbecq & VandeVen, 1971).

Data Collection

Students of the 22 embedded and match courses on all five Penn State campuses were asked to complete the paper-based questionnaire during class within one month of the start of the residential course and again shortly after returning from abroad. Pre-test questionnaires were collected by mid-February 2009, and post-test questionnaires were received by mid-June 2009. The course instructors allowed the researcher or campus-based education abroad coordinator to visit class at a designated time to administer the questionnaire or, on behalf of the researcher, the professor him/herself administered the questionnaire. All students were read a brief, scripted statement to explain the study prior to receiving a copy of the questionnaire and two copies of an informed consent form (see Appendix C). It was requested each student return one signed copy of the consent form and his/her completed questionnaire. All hard documents are kept on file in a secure location.

It is important to note here that, in three cases, questionnaires for particular courses were not collected. In one case, pre-test questionnaires were completed but were never returned to the researcher by the course professor. In the two other cases, the post-test questionnaires were presumably lost in the mail or were simply never administered. As such, there are three cases within the sample of courses for which completed pre-test and post-test questionnaires are not available. On an individual level, students absent on either day of administration did not complete pre-test or post-test questionnaires. This missing data is accounted for in the scale development process as well as in the data analysis (see chapter 6). Non-response bias is not applicable to this study as the questionnaires were administered during class time, and only a negligible number of students declined to participate. In total, 227 useable questionnaires were collected from students enrolled in embedded courses, and 418 questionnaires were collected from students enrolled in the match courses.

As part of the scale development process, three structured group interviews were conducted in April 2009 utilizing Nominal Group Technique (NGT) (Delbecq & VandeVen, 1971) with the goal to further illustrate, define, and validate the constructs of global citizenship. Because of time limitations, academic development was not a focus of these group sessions. Professors of three participating embedded courses were asked to invite students to participate in these interviews. For convenience, the three interviews were conducted on the University Park and Dubois campuses with 4, 9, and 12 participants, all of whom had recently completed the international travel component of their respective courses. Two sessions were conducted during class time, and all three sessions lasted from 45 minutes to one hour. The process of facilitating NGT and the findings from each of the three sessions is explained in detail in chapter 4. Table 3.3 lists the three embedded courses.

Table 3.3 *Structured Group Interviews, Utilizing Nominal Group Technique*

Campus	Embedded Education Abroad Course		Number of Participants
Dubois	SPAN 197	Special Topics--Spain and its Majesty	12
University Park	LLED 412	Teaching Language Arts in Secondary Schools	4
University Park	ENGR497D	Leadership and Innovation for Meeting 21st Century Water Needs	9

Data Analysis

Utilizing Statistical Package for the Social Sciences (SPSS), 17.0, the data analysis focuses on the extent to which pre- and post-test differences emerge and the extent to which the embedded and match courses vary significantly. The effect of group membership on each dimension and sub-dimension of global citizenship and academic development is analyzed utilizing both dependent and independent t-tests. This statistical procedure is particularly useful when analyzing scores of two groups of participants on a particular variable or when analyzing scores of a single group of participants on two variables. In this study, the analysis focuses on the extent to which students in embedded and match courses vary significantly and how members of both groups change over time, as indicated by pre-/post-test differences. Composite mean scores for global citizenship and academic development as well as each of their dimensions and sub-dimensions are calculated to allow for an in-depth, three-tier analysis of the results. Additionally, pre-test differences between embedded and match courses on global citizenship and academic development are examined to account for self-selection.

Participant demographic data (i.e., gender, age, and race/ethnicity) are reported using descriptive statistics. Gender, previous education abroad experience, and language proficiency are analyzed using both dependent and independent t-tests to assess the extent to which these variables moderate changes in the dependent variables. Program duration is examined as a potentially influential program-related moderating variable of students' learning outcomes. Due to the generally low sample size of the embedded course population, caution is exercised in conducting the data analysis. Additionally, the analysis includes an examination of how the two populations differ in their evaluation of their respective courses.

III ENROLLMENT ANALYSIS

Population

Demographic and program-specific data were collected on all regularly enrolled, degree-seeking Penn State students who studied abroad in academic years 2005/06, 2006/07, 2007/08, and 2008/09 (n=8,415). This timeframe was selected because 2005/06 was the first year the University Office of Global Programs began to consistently collect enrollment data on embedded education abroad programs. Within each academic year, there are three semesters (fall, spring, summer), with summer being the third semester. Provisional or non-degree students were eliminated from the data

set (n=234). Enrollment data was not collected from students attending the Pennsylvania College of Technology, Hershey College of Medicine, or Great Valley campuses because these campuses are special mission units of the institution and work independently of the University Office of Global Programs. Similarly, students enrolling in courses via the World Campus were not included.

Variables of Interest

Variables were grouped by demographic, academic, program, and institutional characteristics and analyzed along these four characteristics. Specific variables included are as follows:

- *Demographic* variables include age, gender, race/ethnicity, first-generation status, class standing, need index (0-100), and residency status (in-state/out-of-state). Financial need index is calculated on a student's annual FAFSA report, ranging from 0 (indicating no need) to 100 (indicating full need). While there is the assumption that those without a FAFSA on record have no financial need, this may be erroneous in some cases. There may be students who have financial need but for some reason do not or are not able to submit a FAFSA. For example, international students are not permitted to submit a FAFSA, and as such would appear to have no need. There may be other unidentified student cohorts who are ineligible to submit a FAFSA. Zero need indicates a calculated need index based on estimated family contribution as determined by the FAFSA report. For the purposes of this enrollment analysis, non-traditional student status is determined by age, with those 26 years old or older considered non-traditional. Unless otherwise noted, all variables reflect the student at the time of studying abroad (i.e., age, class standing, need index, etc.).

- *Academic* variables include primary major discipline, field of study, and GPA. Due to the large number of students and a wide range of majors, primary majors were re-coded by field of study according to the National Center for Education Statistics' *Classification of Instructional Programs, 2000*. This is the same classification system used by IIE for its annual Open Doors report (IIE, 2008). Cumulative GPA data was taken during three semesters: the semester prior to studying abroad, the semester abroad (reflecting the final grades earned while abroad), and the semester after returning from abroad. Grades earned through an approved Penn State education abroad program are calculated into the cumulative GPA. Grades earned for international coursework not facilitated through Penn State are transferred through the

Undergraduate Admissions Office; they are not calculated into the cumulative GPA but do count toward graduation requirements. This population was not identified as part of this analysis, but there are typically fewer than fifty students each year who transfer foreign-earned credits this way. Students enrolling in academic year, semester, and summer programs typically must apply to study abroad, and in most cases, have a 3.0 cumulative GPA. Participants in embedded programs typically enroll in the course in much the same way as they register for other Penn State courses. While a minimum GPA is typically not required for embedded programs, certain prerequisite courses may be required.

- *Program* variables include semester/year abroad, program type/duration, program provider, destination (country), and world region. Program type refers to four distinct programming categories: semester, summer, embedded, and academic year. Program duration for summer generally refers to programs of two to eight weeks in duration, and embedded programs are usually less than two weeks in duration. Countries were classified into regional groups based on the U.S. Department of State's definitions of world regions and states. Penn State-facilitated programs include all reciprocal exchanges, direct linkage agreements, embedded programs and summer faculty-led programs. A program provider is an institution or organization that offers education abroad program services to students from a variety of institutions. A provider may be a college or university, a non-profit organization, a for-profit business, or a consortium (Peterson et al., 2008).

- *Institutional* variables include college affiliation and Penn State campus assignment. While college of enrollment is often associated with the University Park campus, students at other campuses may be affiliated with a particular college. Thus to minimize confusion, college of enrollment is calculated based only on University Park enrollments. Campus of enrollment lists only those campuses with reported education abroad enrollment figures.

Data Collection

With the assistance of the University Office of Global Programs, data were gathered primarily through Penn State's *Data Warehouse* and/or exported from individual study abroad program applications. Financial need index and first-generation status information were compiled by the University Office of Student Aid. All student records were coded with a key number to protect

student identity prior to being released to the researcher. University enrollment data were retrieved from the Penn State Fact Book (see www.budget.psu.edu/FactBook). Complete data were available for most students, with the exception of those students studying abroad in 2009, for which GPA data was not yet available at the time of collection.

Data Analysis

The analysis of the data attempts to challenge, dispute, or confirm widely-held assumptions about contemporary education abroad programming. It will demonstrate the extent to which underrepresented populations participate in education abroad and how participation has varied over time and by program type. The analysis will illustrate emerging or commonly misunderstood patterns of enrollment by methodically addressing the four key research questions.

Percentage-based comparisons and significance testing are utilized where appropriate. One-way between-subjects ANOVA will also be used to determine the presence of statistically significant main effects by program type, and post-hoc testing will use Tukey's Honestly Significant Difference (HSD) to determine where specific significant differences occur. Because of the large population size, practical significance of the findings will be measured as needed using Partial Eta Square testing. Additionally, cumulative GPAs earned prior, during, and after studying abroad are analyzed to determine how academic performance was impacted by the experience abroad and to examine claims of the "GPA benefit" of studying abroad (Clabby, 2008; Merva, 2003). Unless otherwise noted, the results present the combined data for all four academic-year enrollments.

To determine whether the population is a skewed representation of the Penn State student body, it is necessary to compare the data with the overall Penn State enrollment. Doing so required collecting additional data from the Office of Student Aid, the Penn State Fact Book, and other published University reports. While every attempt was made to allow for comparisons across like groups, this was not uniformly possible. In particular, the Penn State enrollment information is based on fall 2009 data, as opposed to an average of four academic years, as is the case with the education abroad data. Also, the Penn State data include non-degree, provisional, and World Campus enrollments. Because of this, analyzing education abroad enrollments in relation to the institution population requires caution. Still, strategically important comparisons emerge and warrant attention.

Similarly, the enrollment data will be discussed in relation to national trends, using the 2008 Open Doors dataset. Because the IIE Open Doors report is delayed by one year, the most recent

available data is based on 2006/07 enrollments. As such, direct comparisons with Penn State data can only be made with that academic year. Due to limitations with available Penn State and national datasets, significance testing was not pursued.

IV METHODOLOGICAL LIMITATIONS OF THE STUDY

This study endeavored to overcome the common and often serious methodological and conceptual shortcomings that undermine much of the existing research on outcomes assessment in education abroad. Specifically, the study does not rely on student self-reports, or solicited statements of the impact the experience abroad has had with regard to explicit and pre-determined outcome variables. In other words, students are not asked to comment on how the education abroad experience has changed them. Rather, pre-/post-test changes are examined for differences. The study attempts to account for the self-selection bias which has beleaguered education abroad outcomes research by utilizing a quasi-experimental design that features the inclusion of treatment and match courses and pre-/post-test measures (Singleton & Straits, 2005). Finally, the study utilizes the terminology advanced by the Education Abroad Glossary (Peterson et al., 2008), which is quickly becoming conventional practice in education abroad outcomes assessment research. The decision to rely on standardized terminology, as opposed to Penn State-specific terminology, allows for subsequent research to build upon the current study without confronting issues of semantic ambiguity or institutional parlance.

Careful attention was given to minimizing any methodological shortcomings that could potentially compromise the findings of this study. However, the chosen design of the study is not without modest, yet noteworthy threats to internal validity, namely *selection*, *testing*, *local history*, *mortality*, and *maturation* (Hadis, 2005a; Krathwohl, 2004; Singleton & Straits, 2005).

First, the design of the study does not allow for the use of exact control group pairings, as within-course grouping is not feasible because all enrolled students typically participate in the international travel component of embedded programs as a condition of registering for the course. In other words, it was not possible to randomly assign students within an embedded course to those who participate in the international travel component. Thus, a quasi-experimental approach using a nonequivalent control group design was used (Krathwohl, 2004). Although efforts were taken to pair embedded and match courses similar in focus, credit, length, and content, students knowingly register for embedded programs. It is reasonable, then, to expect self-selection bias to threaten the

study, which makes it difficult to interpret differences in student learning outcomes (Singleton & Straits, 2005). As such, attempts are made to account for this threat through analysis and discussion of the results.

A related threat to internal reliability of nonequivalent control group designs is testing. According to Krathwohl (2004), testing occurs whenever two or more administrations occur with the same or a closely related instrument. Because of this, change may actually be brought about by reactions to the process of measurement. As this study utilizes a pre- and post-test design with approximately three months elapsing between administrations, it is possible the first administration affects the choices made on the second administration. For example, the students may recall the questions and answer without carefully reconsidering their responses. In addition, the questions on the first administration may encourage respondents to reflect on the content and subsequently engage in different behaviors. In this case, however, the questionnaire itself may be instrumental to encourage students to develop as global citizens and to pursue new approaches that enhance their academic development. Moreover, Singleton and Straits (2005) have suggested people will score better or give more socially desirable responses the second time a scale is administered to them.

Although the treatment variable in this quasi-experimental study is the international travel component embedded within otherwise residentially-taught courses, students in the match courses may also be simultaneously experiencing events leading to enhanced global citizenship and academic development. Krathwohl (2004) refers to this threat to validity as local history, which refers to events that occur before the post-test that might also cause an effect. Although students in the match courses are not studying abroad, they may be experiencing events within their courses, on campus, or in their personal lives which impact their development.

Participant mortality, as it relates to absenteeism, presents an additional—albeit minor—threat to internal validity. Because the questionnaire was only available as a paper-based document, only students present on the day of administration completed it. Thus, absenteeism presented a limitation to data collection, but this is likely to impact both embedded and match courses in a similar fashion. There is no reason to expect differential absenteeism. Only a negligible number of students present on the days the questionnaires were administered declined to participate.

Selection-maturation is a particularly troublesome threat to the internal validity of such education abroad outcomes research (Hadis, 2005a; Sutton, Miller & Rubin, 2007). According to Krathwohl (2004), maturation refers to any naturally occurring growth or change in individuals that affects the measured outcome. While a control group typically provides protection against this threat,

students enrolling in embedded programs are self-selected students who are already highly achieving, internationally-oriented students. It would not be unreasonable, then, to assume their rate of development or growth would surpass that of the students in the match courses. As such, Singleton and Straits (2005) suggest caution to exercise caution when attributing outcomes solely to the treatment variable, or in this case, the international travel component of these courses.

All reasonable effort was taken to minimize additional limitations arising from the actual implementation of the study. However, a multi-campus study of this nature is likely constrained by unanticipated variation in data collection. While the researcher administered the questionnaires during class time for all University Park courses, the campus-based education abroad coordinators on the Altoona, Abington, Erie-Behrend, and Dubois campuses were asked to work with the professors of participating courses to administer the questionnaires. It was requested the questionnaires be administered during class time, preferably at the start of class, to ensure students did not feel rushed. Outside of University Park, it turned out this was not always the case. Moreover, the post-test questionnaires should have been administered during the last week of instruction, as the international travel component most often took place during the mid-semester, spring break. In a few cases, however, the international travel component took place in May, or just after the conclusion of regular instruction. In these cases, students were asked to complete the post-test questionnaire either during the last day of their stay abroad or during the return trip to the United States.

Finally, the enrollment analysis used secondary data and data collected in aggregate from other sources. Although the data was collected in a systematic manner, there is inevitably room for human error. Because the data set is large and spans four academic years, extra caution was taken to mitigate the miscoding of variables. Specifically, every student record was coded with a unique key identifier, and it was with this key that all data were collected and organized for analysis.

V DELIMITATIONS OF THE STUDY

This study is restricted to embedded education abroad programming. There are various forms of short-term, faculty-led programs in which faculty members from the home campus accompany students abroad. However, this study is limited to only those international programs including a brief experience abroad as a minor component of a residential course for which the substantive content is provided within the United States. The international travel component of these programs

forms an integral part of, or an optional add-on to, a course given on the home campus. As such, this study does not seek to generalize to other education abroad program types, irrespective of duration (Engle & Engle, 2003).

As an institution-specific study, the findings are not widely generalizable to U.S. undergraduate education abroad, though there is arguably a case for theoretical generalizability. An institution-specific approach potentially reduces confounding effects related to institution type. For example, barriers to education abroad vary across institutions, such as curricular restraints, tuition and financial structures, institutional policy, and programming limitations. The methodological approach employed in this study utilizes primary data from five campuses within one centralized, multi-campus institution. Findings will have generalizable applications to similar institutional contexts, especially doctoral/research institutions that account for 59% of all U.S. students studying abroad (Obst, Bhandari, &Witherell, 2007).

The enrollment analysis featured in this study, however, is based on all regularly enrolled, degree-seeking students across the institution who studied abroad in academic years, 2005/06, 2006/07, 2007/08, and 2008/09. This timeframe was selected because 2005/06 was the first year the institution consistently collected enrollment data on embedded education abroad programs. The choice of this timeframe limits the conclusions drawn from enrollment changes over time and does not illustrate the impact the increasing popularity of embedded programs has had on enrollments in other education abroad program types. It is also important to acknowledge the enrollment analysis reports on only those students who actually study abroad and is thus limited in the conclusions that can be drawn about who doesn't study abroad. Because of this, the findings will be discussed in relation to general Penn State and national enrollment trends.

CHAPTER FOUR: SCALE DEVELOPMENT

I INTRODUCTION

Given that more and more colleges and universities integrating global citizenship as an essential element to meet the definition of an engaged campus, particular attention is turning to the role education abroad can play in developing *global citizens* (Braskamp, 2008; Ehrlich, 2000; Holland & Meeropol, 2006). Integration of such experiences into the undergraduate curriculum is widely assumed to be an effective way to enhance student academic development and to provide a pathway to empower students to become responsible global citizens (Brown, 2006; Hunter, White & Godbey, 2006). However, there are no widely accepted operational definitions of these two constructs and no instruments to reliably assess the extent to which international educational experiences enhance academic development and lead to gains in global citizenship (Deardorff & Hunter, 2006; Deardorff, 2009). Thus, for the successful completion of this study, it was deemed essential to develop a statistically reliable and valid measure of global citizenship and academic development to be used in the context of undergraduate education abroad.

It should be noted there are several excellent scales currently being used in education abroad outcomes research (Paige & Stallman, 2007). However, these scales are either too narrowly focused in scope or do not align with the current study's operational definitions of Global Citizenship and Academic Development. For example, the *Intercultural Development Inventory* (IDI) has been used widely in recent years as a pre-/post-test instrument in education abroad research, but this scale specifically measures intercultural competency development and does not address other areas of Global Citizenship (Bennett, 1993; Hammer, Bennett, & Wiseman, 2003). Similarly, the *Cross-Cultural Adaptability Inventory* (CCAI) was developed by Kelley and Meyers (1992) as a self-assessment questionnaire to measure an individual's adaptability in four dimensions that affect one's ability to have a successful experience in another culture. These are emotional resilience, flexibility and openness, perceptual acuity, and personal autonomy. The scale, however, is not intended to be a stand-alone instrument, but rather as part of a battery of interviews and tests.

Braskamp, Braskamp, and Merrill (2007, 2008) developed the *Global Perspective Inventory* (GPI) as a measure of holistic and global student development, looking specifically at cognitive, intrapersonal, and interpersonal learning domains. Although the GPI can be useful for persons of all ages, the GPI has been used primarily with college-aged students because evidence of students'

global perspective is particularly useful for education abroad programming. Hunter's *Global Competence Aptitude Assessment* (GCAA) is a relatively new instrument that specifically measures the knowledge, skills, attitudes, and experiences necessary to become globally competent (Hunter, White, & Godbey, 2006). While this instrument seems to reliably assess global competence, it does not address other dimensions of global citizenship. Although all of these scales have relevant utility and value in education abroad outcomes research, none account for nor claim to measure global citizenship.

With regard to academic development, there are no known instruments in use that broadly measure academic learning outcomes related specifically to education abroad programming. The research in this area has primarily focused on language proficiency development through education abroad programming or discipline-specific learning outcomes (Dufon & Churchill, 2006; Kinginger, 2009; Pellegrino Aveni, 2004). Students' GPA is often used to measure academic performance, and there have also been studies in which GPA change has been analyzed over time as an indicator of student academic achievement (Clabby, 2008; Merva, 2003). Because education abroad is an interdisciplinary undertaking with wide variation in academic programming, there are few ways to broadly measure academic achievement. As such, a measure of academic development is preferable to assess how students develop academically in result of studying abroad, and further, to understand how this development varies by program type, duration, and location.

Thus, global citizenship and academic development scales were developed for the present study to demonstrate the extent to which education abroad experiences influence students' academic development and global citizenship. This chapter describes the process of developing and refining these scales (DeVellis, 1991). Subsequent use and refinement of the scales with various types of programs and student populations is expected, because the field of education abroad is increasingly being held accountable to its long-held claims. As a result, it is increasingly involved in outcomes assessment (Bolen, 2007).

II CONCEPTUAL FRAMEWORK

Although no one particular definition of global citizenship has been adopted in the international education profession and related academic fields, three overarching dimensions of global citizenship were consistently noted in the literature: *social responsibility*, *global competence* and *global civic engagement*. These interrelated dimensions align well with the prominent theoretical and philosophical perspectives described in the literature; reflect how governmental entities, associations

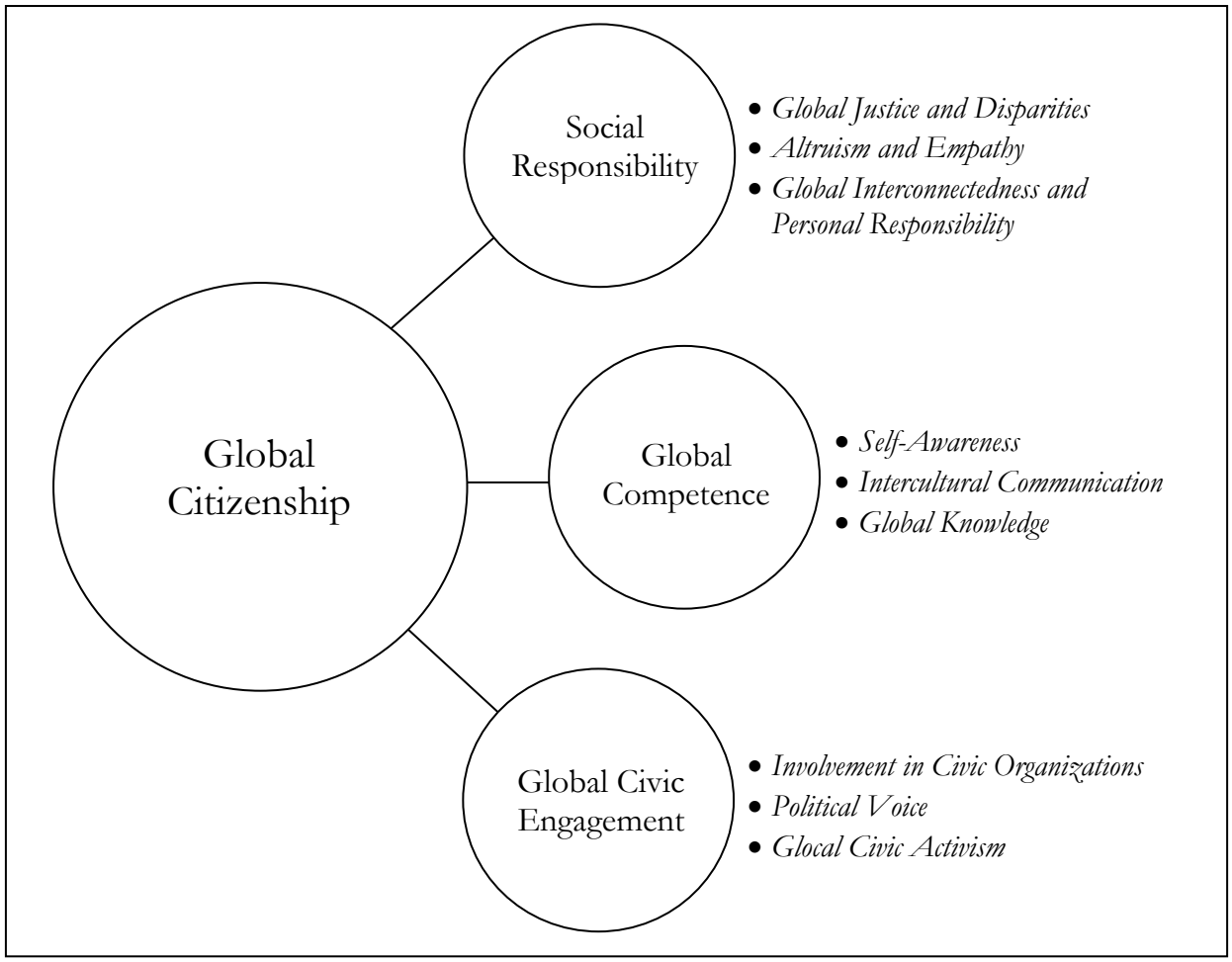
and educators have framed global citizenship; and articulate ideas that resonate with the goals of undergraduate education abroad. Within each dimension are multiple sub-dimensions that further reflect the complexity of the construct (see Figure 4.1). The proposed three dimensions of global citizenship and their related sub-dimensions are as follows:

1. *Social Responsibility* is defined as the perceived level of interdependence and social concern to others, to society, and to the environment (Andrzejewski & Alessio, 1999; Braskamp, Braskamp, & Merrill, 2008). Social responsibility includes these sub-dimensions:
   a. *Global Justice and Disparities.* Students evaluate social issues and identify instances and examples of global injustice and disparity.
   b. *Altruism and Empathy.* Students examine and respect diverse perspectives and construct an ethic of social service to address global and local issues.
   c. *Global Interconnectedness and Personal Responsibility.* Students understand the inter-connectedness between local behaviors and their global consequences.
2. *Global Competence* consists of having an open mind while actively seeking to understand others' cultural norms and expectations and leveraging this knowledge to interact, communicate, and work effectively outside one's environment (American Council on Education, 1998; Deardorff, 2006b; Hunter, White & Godbey, 2006; Peterson et al., 2007). Global competence includes these sub-dimensions:
   a. *Self-Awareness.* Students recognize their own limitations and ability to engage successfully in an intercultural encounter.
   b. *Intercultural Communication.* Students demonstrate an array of intercultural communication skills and have the ability to engage successfully in intercultural encounters.
   c. *Global Knowledge.* Students display interest and knowledge about world issues and events.
3. *Global Civic Engagement* refers to demonstrated action and/or predisposition to recognize local, state, national, and global community issues and respond through actions such as volunteerism, political activism, and community participation (Andrzejewski & Alessio, 1999; Paige, Stallman, & Josić, 2008). Global civic engagement includes these sub-dimensions:
   a. *Involvement in Civic Organizations.* Students engage in or contribute to volunteer work or assistance in global civic organizations.

b. *Political Voice.* Students construct their political voice by synthesizing their global knowledge and experiences in the public domain.

c. *Glocal Civic Activism.* Students engage in purposeful local behaviors that advance a global agenda.

Figure 4.1 *Global Citizenship Conceptual Model*



Academic development is similarly understood as a multi-dimensional construct that entails *academic self-concept* and *academic self-efficacy* (Bong & Clark, 1999; Choi, 2005). Within each dimension of academic development are sub-dimensions that add further refinement to the construct (see Figure 4.2). The two dimensions and their related sub-dimensions are explained as follows:

1. *Academic Self-Concept* refers to perceptions of one's own academic abilities. It incorporates both cognitive and affective responses toward the self and is heavily influenced by social

comparison (House, 1992; Reynolds et al., 1980; Reynolds, 1988; Waugh, 2002; Woodside, Wong & Wiest, 1999). Academic self-concept consists of:

a. *Expanding Academic Interests*. Students locate and evaluate information and integrate knowledge from a variety of sources and fields.

b. *Learning from Others*. Students gain knowledge and exhibit analytical and organizational skills from peer learning and teamwork.

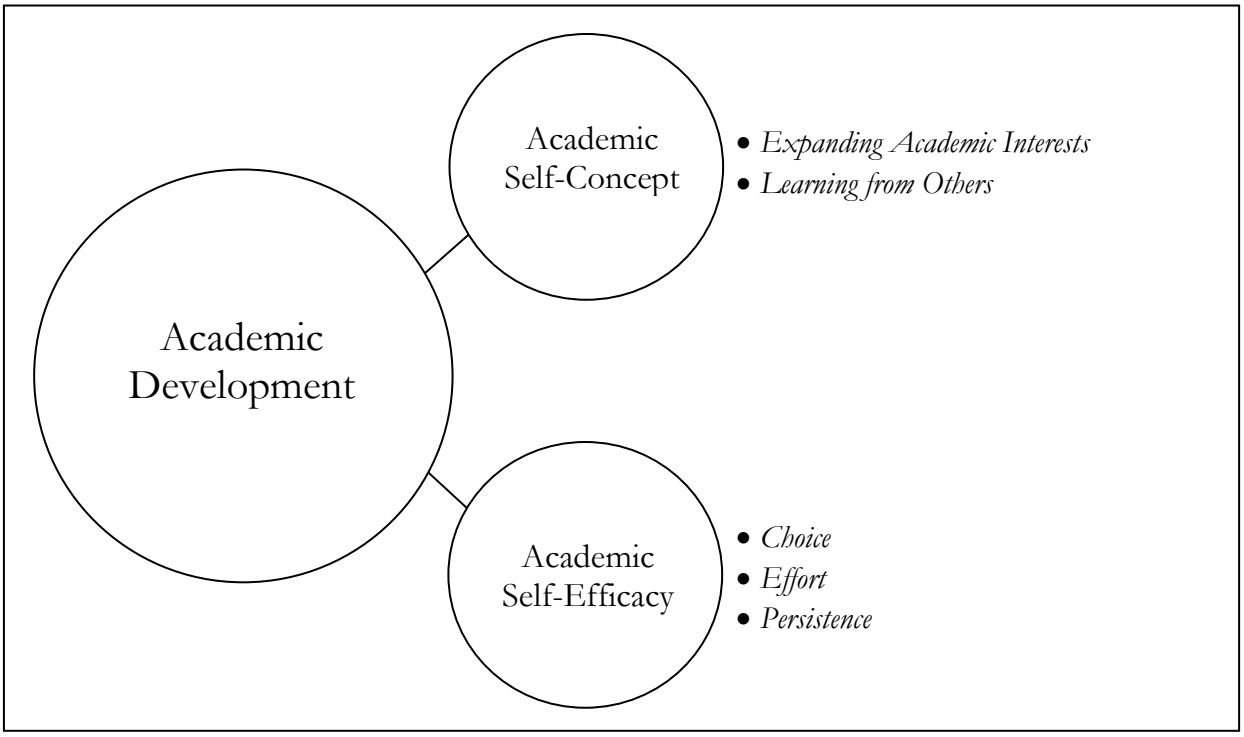
2. *Academic Self-Efficacy* concerns primarily the extent to which students are self-directed and believe they personally have the capabilities to take responsibility for their academic performance (Bandura, 1986; Cassidy & Eachus, 2000; Pajares, 2002; Eachus, 1993; Gresham, Evans, & Elliott, 1998). Academic self-efficacy consists of:

a. *Choice*. Students learn with a sense of purpose and develop self-determination and autonomy by correlating academic goals to their social goals.

b. *Effort*. Students demonstrate a strong desire to achieve their social and academic goals by fully engaging in activities for their intended learning outcomes.

c. *Persistence*. Students explore adaptive alternatives when faced with difficulties to achieving their goals.

Figure 4.2 *Academic Development Conceptual Model*



III SCALE DEVELOPMENT METHODOLOGY

The scale development process was informed by an eight-step process proposed by DeVellis (1991). To serve as specific guidelines for developing measurement scales, the eight steps include 1.) determine clearly what is to be measured; 2.) generate an item pool; 3.) determine the format for measurement; 4.) have initial item pool reviewed by experts; 5.) consider inclusion of validation items; 6.) administer items to a development sample; 7.) evaluate the items; and 8.) optimize scale length. The process utilized for this study generally followed these eight steps but will be presented in a revised order for greater clarity and ease of explanation. The methodology employed in this scale development process was multi-faceted, including two expert face validity trials conducted in 2008, extensive exploratory and confirmatory factor analyses, and a series of three small-group interviews utilizing *Nominal Group Technique* (Delbecq & VandeVen, 1971) to verify the scope of the global citizenship construct.

IV ANALYSIS AND RESULTS

As explained previously, the scale development process followed an eight-step process (DeVellis, 1991) with the goal to produce reliable and valid measures of global citizenship and academic development. What follows is a detailed description of the approach taken at each step and the related outcomes.

Step One: *Focus of Measurement*

Although global citizenship and academic development are frequently referenced ideas within higher education, neither has a widely accepted operational definition. As such, it was critical at the outset of this study to determine with specificity the conceptual scope and operational definitions of global citizenship and academic development.

An extensive literature review was conducted to better understand the conceptual boundaries of the constructs and to bring greater clarity to their dimensions. As the extant theory offered no explicit guide to the scale development process, it was essential to first lay out emerging conceptual formulations and then carefully review each before attempting to operationalize them. Considerable efforts were taken to bring greater specificity to the conceptual refinement process. As such, attention was focused on the theoretical dimensions of each construct, as well as the related sub-dimensions anchored within each. This added greater overall sophistication to the constructs as well

as a potential roadmap with practical implications to educate for global citizenship and enhanced academic development.

Throughout this process, time was given to an explicit discussion about what to include in the measure. Whereas similar instruments purport to measure global competence, for example (Hunter, White, & Godbey, 2006), it was important the scale encompass the broader complexity of global citizenship, of which global competence is but a single focus of measurement. It was similarly important to remain vigilantly focused on recognizing the dimensions of academic development and not the related yet very different idea of academic achievement. Ultimately, the dimensions within global citizenship and academic development were identified and sub-dimensions developed for further conceptual refinement. An item pool for each scale was generated based on this final conceptual model.

Step Two: *Item Pool Generation*

Once the focuses of the scales were clearly articulated, the actual construction of the instruments could begin in earnest. The first step was to generate a large pool of items as candidates for eventual inclusion in the scales. The initial pool of items was adapted from an extensive survey of related instruments, including the following measures and/or related publications:

Global Citizenship Scale:

- Citizenship, Involvement, Democracy (CID) Survey (Howard and Gilbert, 2008)
- Civic Attitudes and Skills Questionnaire (Moely et al., 2002a; Moely et al., 2002b)
- Civic Measurement Models (Flanagan, Syvertsen, & Stout, 2007)
- Core Indicators of Engagement (Lopez et al., 2006)
- Cross-Cultural Adaptability Inventory (CCAI) (Kelley & Meyers, 1992)
- Global Beliefs in a Just World Scale (Lipkus, 1991)
- Global Competence Aptitude Assessment (GCAA) (Hunter, White, & Godbey, 2006)
- Global Mindedness Scale (GMS) (Hett, 1993)
- Global Proficiency Inventory (Braskamp, Braskamp, & Merrill, 2007, 2008)
- Intercultural Development Inventory (Hammer, Bennett, & Wiseman, 2003)
- Social Dominance Orientation Scale (Pratto et al., 1994)
- South Pacific Studies Abroad Survey (Tarrant, 2008)

Academic Development Scale:

- Academic and Social Self-Efficacy Scale (Gresham, Evans, & Elliot, 1988)
- Academic Confidence Scale (ACS) (Sander & Sanders, 2003)
- Academic Motivation (Waugh, 2002)
- Academic Motivation Scale (Vallerand, et al. 1992)
- Academic Self-Concept Questionnaire (Liu & Wang, 2005)
- Academic Self-Efficacy Scale (Eachus, 1993)
- Approaches and Study Skills Inventory for Students (ASSIST) (Tait & Entwistle, 1996)
- Measurement of Academic Self-Concept in College Students (Reynolds et al., 1980; Reynolds, 1988)
- Sojourner Self-Efficacy in Communication Scale (Milstein & Peterson, 2001)
- Student Evaluation of Educational Quality (SEEQ) (Marsh, 1982)

When selecting and adapting items from existing scales, care was taken to primarily ensure each reflected the scale's purpose, and secondarily to align each item with its related sub-dimensions. At this stage of the scale development process, redundancy of items was tolerated. The number of items was also not restricted in favor of generating a larger pool of items in order to maintain a degree of flexibility for later reliability analyses. Precaution was taken to avoid exceptionally lengthy items and to minimize reading difficulty level. Double-barreled items and items with ambiguous pronoun references were edited. Unfortunately, extra care was not taken at this stage to account for negatively worded questions, which DeVellis (1991) claims could confuse respondents, especially when completing long questionnaires (see Step Six).

Step Three: *Format for Measurement*

The items on the global citizenship scale were declarative statements for which there are varying degrees of agreement with or endorsement; therefore a 5-point Likert-type format was used to measure responses to each item. The measurement ratings ranged from strongly disagree (1) to strongly agree (5). The items generated to measure academic development required that participants respond based on the frequency with which they engaged in particular actions/behaviors; therefore, a 5-point Likert-type format was used, with ratings ranging from never (1) to always (5).

The other sections of the pre-test and post-test questionnaires used varying formats to maximize ease with responding. They mostly used short answer, check boxes, binary options (yes/no), and 10-point semantic differential scaling questions. The third section of the post-test included evaluative statements regarding the overall course experience (Marsh, 1982) and as such a 5-point Likert-type agree/disagree scale was used, ranging from strongly disagree (1) to strongly agree (5).

Step Four: *Expert Review of Item Pool*

The global citizenship items were reviewed and subsequently refined through two independent, face validity trials conducted in October 2008 at the Pennsylvania Council on International Education (PACIE) annual conference and in November 2008 at the Active Global Citizenship conference at Lock Haven University. Since global citizenship is a construct which cannot be directly measured, these trials were essential to determine if there was any discrepancy between what the items intend to measure and what they appear to measure according to the feedback provided by subject-matter experts (Krathwohl, 1998).

In both instances, conference attendees (primarily education abroad professionals from higher education institutions in Pennsylvania and neighboring states) were invited to a working session beginning with an overview of the conceptual scope of global citizenship and its three dimensions. Participants (approximately 40 in each meeting) were then invited to draw upon their expertise with student development through education abroad to help select and adapt appropriate items for the scales. Participants were provided with hard copies of a "Global Citizenship Scale Item Pool" that included operational definitions of the dimensions of global citizenship, instructions, and twelve subscales composed of multiple items drawn from an extensive survey of related instruments (see Appendix D). They were asked to work in pairs or in small groups and to assign each subscale of items into one of the three dimensions of global citizenship. Additionally, it was requested that participants make direct editing suggestions to the items to improve clarity, taking into consideration that the items were to be geared to undergraduate students. Both sessions lasted approximately 90 minutes, during which the last 20 minutes were used to moderate an unstructured discussion of the emerging scale and to solicit general feedback. The feedback was collected and compiled into one master document that was used to refine the scale items as needed.

The feedback from these expert validity trials was very helpful and was used to refine the scale items. First, only items rated consistently in one of the three dimensions were retained. Additionally,

ambiguous items or items with potentially misleading statements were modified, items with similar meanings were deleted, and the wording was revised considerably to an appropriate undergraduate student level. In particular, a number of items relating to global civic engagement asked students to anticipate what they would do over the next 12 months. These experts recommended the timeframe be shortened to six months, explaining that many students would be graduating within 12 months of studying abroad and would be less able to predict their behaviors post-graduation. There were also comments that implied some questions were leading and that some students might be inclined to choose the most socially desirable answer whether or not that answer best suited him or her. In general, the majority of the participants agreed with the proposed dimensions and assigned items to each of them accordingly, thus validating the item selection process for the three dimensions of global citizenship.

Due to time limitations and other restrictions, the academic development scale items were not reviewed systematically by an expert panel. However, the items were closely reviewed by two researchers intimately familiar with this study, one of them a member of the dissertation committee.

As a result of this intensive review process, the initial item pools were edited and simplified to create global citizenship and academic development scales. Tables 4.1 and 4.2 list the items for each scale, subdivided into dimensions and sub-dimensions.

Table 4.1 *Global Citizenship Scale*

Dimensions and Sub-Dimensions	
Social Responsibility: *Global Justice and Disparities*	
SR.1.1	I think that most people around the world get what they are entitled to have.
SR.1.2	It is OK if some people in the world have more opportunities than others.
SR.1.3	I think that people around the world get the rewards and punishments they deserve.
SR.1.4	In times of scarcity, it is sometimes necessary to use force against others to get what you need.
SR.1.5	The world is generally a fair place.
SR.1.6	No one country or group of people should dominate and exploit others in the world.
Social Responsibility: *Altruism and Empathy*	
SR.2.1	The needs of the worlds' most fragile people are more pressing than my own.
SR.2.2	I think that many people around the world are poor because they do not work hard enough.
SR.2.3	I respect and am concerned with the rights of all people, globally.

Social Responsibility: *Global Interconnectedness and Personal Responsibility*

SR.3.1 Developed nations have the obligation to make incomes around the world as equitable as possible.
SR.3.2 Americans should emulate the more sustainable and equitable behaviors of other developed countries.
SR.3.3 I do not feel responsible for the world's inequities and problems.
SR.3.4 I think in terms of giving back to the global society.

Global Competence: *Self-Awareness*

GC.1.1 I am confident that I can thrive in any culture or country.
GC.1.2 I know how to develop a place to help mitigate a global environmental or social problem.
GC.1.3 I know several ways in which I can make a difference on some of this world's most worrisome problems.
GC.1.4 I am able to get other people to care about global problems that concern me.

Global Competence: *Intercultural Communication*

GC.2.1 I unconsciously adapt my behavior and mannerisms when I am interacting with people of other cultures.
GC.2.2 I often adapt my communication style to other people's cultural background.
GC.2.3 I am able to communicate in different ways with people from different cultures.
GC.2.4 I am fluent in more than one language.
GC.2.5 I welcome working with people who have different cultural values from me.
GC.2.6 I am able to mediate interactions between people of different cultures by helping them understand each other's values and practices.

Global Competence: *Global Knowledge*

GC.3.1 I am informed of current issues that impact international relations.
GC.3.2 I feel comfortable expressing my views regarding a pressing global problem in front of a group of people.
GC.3.3 I am able to write an opinion letter to a local media source expressing my concerns over global inequalities and issues.

Global Civic Engagement: *Involvement in Civic Organizations*

GCE.1.1 Over the next 6 months, I plan to do volunteer work to help individuals and communities abroad.
GCE.1.2 Over the next 6 months, I will participate in a walk, dance, run, or bike ride in support of a global cause.
GCE.1.3 Over the next 6 months, I will volunteer my time working to help individuals or communities abroad.
GCE.1.4 Over the next 6 months, I plan to get involved with a global humanitarian organization or project.
GCE.1.5 Over the next 6 months, I plan to help international people who are in difficulty.
GCE.1.6 Over the next 6 months, I plan to get involved in a program that addresses the global environmental crisis.
GCE.1.7 Over the next 6 months, I will work informally with a group toward solving a global humanitarian problem.

GCE.1.8	Over the next 6 months, I will pay a membership or make a cash donation to a global charity.
Global Civic Engagement: *Political Voice*	
GCE.2.1	Over the next 6 months, I will contact a newspaper or radio to express my concerns about global environmental, social, or political problems.
GCE.2.2	Over the next 6 months, I will express my views about international politics on a website, blog, or chat-room.
GCE.2.3	Over the next 6 months, I will sign an email or written petition seeking to help individuals or communities abroad.
GCE.2.4	Over the next 6 months, I will contact or visit someone in government to seek public action on global issues and concerns.
GCE.2.5	Over the next 6 months, I will display and/or wear badges/stickers/signs that promote a more just and equitable world.
GCE.2.6	Over the next 6 months, I will participate in a campus forum, live music, or theatre performance or other event where young people express their views about global problems.
Global Civic Engagement: *Glocal Civic Activism*	
GCE.3.1	If at all possible, I will always buy fair-trade or locally grown products and brands.
GCE.3.2	I will deliberately buy brands and products that are known to be good stewards of marginalized people and places.
GCE.3.3	I will boycott brands or products that are known to harm marginalized global people and places.

Table 4.2 *Academic Development Scale*

Dimension and Subscales	
Academic Self-Concept: *Expanding Interests*	
SC.1.1	I show interest in a number of academic topics.
SC.1.2	I read widely on a number of academic topics.
SC.1.3	I think about solving problems with which others have difficulty, because I'm interested.
SC.1.4	I pay attention to professors in order to learn as much as I can.
SC.1.5	I have confidence in my academic ability to achieve the most that I can.
SC.1.6	I relate new ideas to those in other topics or other courses whenever possible.
SC.1.7	I focus my reading on a narrow area of academic interest.
Academic Self-Concept: *Learning from Others*	
SC.2.1	I engage in productive academic debate with my peers.
SC.2.2	I participate in class discussions to improve my understanding of the academic content.
SC.2.3	I interact with my peers in solving problems in academic work.
SC.2.4	I seek to learn from others with more knowledge than I have.

SC.2.5 I ask questions of others to improve my understanding of the academic content.

Academic Self-Efficacy: *Choice*

SE.1.1 Seek out to understand for myself the meaning of what I am expected to learn.
SE.1.2 Evaluate my performance against the academic standards I set myself.
SE.1.3 Prefer to be told precisely what to do in essays or other assignments.
SE.1.4 Take personal responsibility for my academic learning.
SE.1.5 Set realistic but challenging academic goals.
SE.1.6 Learn only the information I have to know to pass.
SE.1.7 Set the highest standards in academic work which I believe I can achieve.

Academic Self-Efficacy: *Effort*

SE.2.1 Do my best to reach the academic standards that I set for myself.
SE.2.2 Make strong demands on myself to achieve in academic work.
SE.2.3 Make a strong effort to achieve as high as I can in academic work.
SE.2.4 When I am given an academic task or assignment, I make a strong effort to find the right answers.
SE.2.5 Do not give up easily when faced with a difficult assignment.

Academic Self-Efficacy: *Persistence*

SE.3.1 Find conditions for studying which allow me to get on with my work easily.
SE.3.2 Read the recommended background material.
SE.3.3 Try different strategies to achieve my academic goals when I have difficulties.
SE.3.4 Ask for help if I don't understand.
SE.3.5 Study effectively on my own in independent/private study.
SE.3.6 Manage my work load to meet coursework deadlines.
SE.3.7 When I have difficulties reaching my goals, I make a renewed effort to ensure I achieve them.
SE.3.8 Seek out information when necessary and take steps to master it.

Step Five: *Development Administration*

During the spring 2009 semester, the scales were tested with a sample of students taking embedded courses and a sample of students taking similar residential courses with no international component. For the purposes of this study, the global citizenship and academic development scales were developed as one questionnaire, with four distinct sections. The first section solicited information on course characteristics, such as destination, length, and reasons for taking the course. The second and third sections consisted of the 75 items that formed the global citizenship and academic development scales, with each dimension of the two constructs presented in distinctly ordered question sets. The final section gathered demographic and related information, such as

gender, age, and previous international experience. See Appendix A for the final questionnaire, inclusive of both the global citizenship and academic development scales.

This instrument was administered to students at the end of February 2009 on five Penn State campuses. Namely, eleven courses with embedded international education experiences, and eleven match courses with no international component were selected to participate in the study. The instructors of these courses allowed the researcher to visit class at a designated time to administer the questionnaire. The researcher read a statement of consent and distributed the questionnaires and an informed consent form (see Appendix C). A negligible number of students declined to participate. In total, 126 useable questionnaires were collected from students enrolled in embedded courses, and 222 questionnaires were collected from students enrolled in the match courses.

Step Six: *Exploratory Scale Testing and Development*

After developing, scrutinizing, and refining the scales, it was necessary to determine whether the proposed dimensional structures reliably assessed global citizenship and academic development by examining interrelationships among the items (Krathwohl, 2004). Accordingly, the dimensional structures of each scale were examined using principal component exploratory factor analysis (data reduction, factor analysis procedure using the Statistical Package for the Social Sciences, 17.0) and Cronbach's coefficient alpha to estimate internal consistent reliability (Cronbach, 1951). Promax rotation was used to clarify the factor structure obtained from the exploratory factor analysis (EFA) because it was expected that the dimensions would be moderately inter-related. All negatively worded items were reverse coded before analysis (i.e., SR.1.1, SR.1.2, SR.1.3, SR.1.4, SR.1.5, SR.2.2, SR.3.3, SC.1.7, SE.1.3, SE.1.6).

Dimensional Structure of the Global Citizenship Scale. Results of the EFA revealed four distinct factors within social responsibility (see Table 4.3). F1 included items SR1.1, SR.1.2, SR.1.3, SR.1.5 and SR.2.2; F2 included items SR.2.3, SR.3.4, SR.1.6, and SR.1.4; F3 included items SR.3.1 and SR.3.3; and F4 included items SR.2.1 and SR.3.2. With the exception of F1 (Global Justice and Disparities), the factors did not align with the intended theoretical sub-dimensions of social responsibility. In light of these results, individual items were reviewed in terms of their relation to the sub-dimensions, and as a result, item SR.1.4 was judged to theoretically align with F1. In the end, F1 was the only factor to be retained and included six items (SR.1.1, SR.1.2, SR.1.3, SR.1.4, SR.1.5 and SR.2.2) with a Cronbach's alpha coefficient of .70. All other items were omitted from the scale.

Regarding global competence, the results from the EFA revealed that items GC.3.3, GC.3.2, GC.2.6, GC.2.5 and GC.3.1 loaded on F1. However, item GC.2.5 was not retained in the factor because it cross-loaded with F3. Additionally, Cronbach's reliability analysis revealed that item GC.2.6 reduced the overall reliability of the sub-dimension and as such was omitted. In the end, F1 (Global Knowledge) consisted of items GC.3.3, GC.3.2 and GC.3.1 with a Cronbach's alpha of .61, a moderate value but within an acceptable range for a three-item sub-dimension (Cortina, 1993; Hatcher, 1994; Nunnally, 1978). F2 included items GC.1.2, GC.1.3, GC.1.1, GC.2.4 and GC.1.4. However, items GC.1.1 and GC.2.4 were also omitted due to their poor contribution to the overall Cronbach's reliability coefficient. In the end, F2 (Self-Awareness) consisted of items GC.1.2, GC.1.3 and GC.1.4 with a Cronbach's alpha of .64, again a moderate value but within an acceptable range. F3 (Intercultural Communication) included items GC.2.1, GC.2.2 and GC.2.3 (α = 70).

Within the dimension of global civic engagement, a three-factor solution best explained the data. F1 (Involvement in Civic Organizations) included items GCE.1.1, GCE.1.2, GCE.1.3, GCE.1.4, GCE.1.5, GCE.1.6, GCE.1.7 and GCE.1.8 (α = .92). The second factor included items GCE.2.1, GCE.2.2, GCE.2.3, GCE.2.4, GCE.2.5 and GCE.2.6. However, items GCE.2.5 and GCE.2.3 were omitted due to their poor contribution to the overall Cronbach's reliability coefficient, leaving four items to comprise F2 (Political Voice; α = .82). F3 (Glocal Civic Activism) included items GCE.3.1, GCE.3.2 and GCE.3.3 (α = .72).

Table 4.3 *Exploratory Factor Analysis of Global Citizenship Scale*

Dimensions and Items	Pattern Coefficients			
Social Responsibility	F1	F2	F3	F4
SR.1.1	**.755***	.130	-.101	.089
SR.1.3	**.748***	.109	-.082	.166
SR.1.5	**.640***	-.037	.192	.112
SR.1.2	**.587***	.377	-.051	-.184
SR.2.2	**.511***	.308	.276	-.149
SR.2.3	.160	**.755**	.077	.077
SR.3.4	.040	**.674**	.199	.108
SR.1.6	.112	**.659**	-.061	.269
SR.1.4	.207	**.511***	.043	-.373
SR.3.1	-.179	.079	**.788**	-.130
SR.3.3	.396	.146	**.514**	.124
SR.2.1	.126	.275	-.089	**.719**

SR.3.2	.152	.027	.512	**.547**
Eigen values	3.394	1.392	1.201	1.082
% of total variance	26.111	10.709	9.239	8.323
Cumulative % of variance	26.111	36.820	46.059	54.382
Cronbach's alpha (retained items)	.70	-	-	-
Retained items per factor	6	-	-	-

	Pattern Coefficients		
Global Competence	F1	F2	F3
GC.3.3	**.745***	.029	-.021
GC.3.2	**.734***	.088	.081
GC.2.6	**.620**	.288	.289
GC.2.5	**.487**	-.066	.444
GC.3.1	**.475***	.377	.008
GC.1.2	.150	**.740***	-.008
GC.1.3	.292	**.639***	-.046
GC.1.1	-.111	**.618**	.359
GC.2.4	-.004	**.481**	.345
GC.1.4	.463	**.474***	.159
GC.2.1	-.005	.060	**.808***
GC.2.2	.161	.126	**.773***
GC.2.3	.316	.416	**.524***
Eigen values	3.994	1.484	1.235
% of total variance	30.726	11.413	9.497
Cumulative % of variance	30.726	42.138	51.636
Cronbach's alpha (retained items)	.61	.64	.70
Retained items per factor	3	3	3

	Pattern Coefficients		
Global Civic Engagement	F1	F2	F3
GCE.1.1	**.851***	.045	.125
GCE.1.3	**.846***	.241	.147
GCE.1.4	**.792***	.373	.178
GCE.1.5	**.710***	.373	.108
GCE.1.8	**.616***	.409	.039
GCE.1.7	**.599***	.575	.209
GCE.1.2	**.571***	.360	.151
GCE.1.6	**.556***	.550	.214
GCE.2.2	.198	**.792***	.069
GCE.2.1	.213	**.743***	.153
GCE.2.4	.321	**.697***	.171
GCE.2.6	.402	**.632***	.250
GCE.2.5	.418	**.578**	.382

GCE.2.3	.453	**.531**	.218
GCE.3.1	.119	-.007	**.847***
GCE.3.2	.267	.251	**.731***
GCE.3.3	.024	.438	**.666***
Eigen values	8.595	1.483	1.089
% of total variance	50.559	8.723	6.406
Cumulative % of variance	50.559	59.282	65.688
Cronbach's alpha (retained items)	.92	.82	.72
Retained items per factor	8	4	3

* Items maintained for subsequent analyses. Bolded items reflect initial factor loadings.

Dimensional Structure of the Academic Development Scale. Results of the EFA revealed that within the dimension of academic self-concept, the item loadings on the two sub-dimensions did not reflect their intended constructs (see Table 4.4). F1 included items SC.2.1, SC.1.2, SC.2.2, SC.1.3, SC.1.1, SC.2.3, SC.2.5, and SC.1.6; F2 included items SC.1.4, SC.1.5, and SC.2.4; and F3 included item SC.1.7. Instead, items from each of the two subscales loaded to form a hybrid sub-dimension of Expanding Academic Interest and Learning from Others of (α = .83). Item SC.1.3 was deleted from F1 as it was deemed a poorly worded and ambiguous item. Items in F2 (SC.1.4, SC.1.5, SC.2.4) and F3 (SC.1.7) did not fit the theoretical model of the dimension and were also subsequently deleted.

Within the dimension of academic self-efficacy, four distinct factors were revealed. F1 included items SE.2.2, SE.2.1, SE.2.3, SE.1.4, SE.2.4, SE.1.2, SE.1.5, SE.1.7, and SE.2.5; F2 included items SE.3.7, SE.3.6, SE.3.8, SE.3.4, and SE.3.3; F3 included items SE.3.2, SE.3.5, and SE.3.1; and F4 included items SE.1.3, SE.1.6, and SE.1.1. In a similar fashion with academic self-concept, scores from two of the three sub-dimensions of academic self-efficacy (Choice, Effort*)* combined to yield a Cronbach's alpha of .90. Items SE.1.2 and SE.2.5 were omitted due to their poor contribution to the overall Cronbach's reliability coefficient. The five items for F2 (Persistence*)* yielded a Cronbach's alpha of .80. Items in F3 and F4 had cross-loadings across the three anticipated sub-dimensions and were found to lack theoretical cohesion to warrant the creation of a new sub-dimension within academic self-efficacy. As such, these six items (SE.3.2, SE.3.5, SE.3.1, SE.1.3, SE.1.6, and SE.1.1) were deleted from the scale.

Table 4.4 *Exploratory Factor Analysis of Academic Development Scale*

Dimensions and Items				
	Pattern Coefficients			
Academic Self-Concept	F1	F2	F3	
SC.2.1	**.831***	-.079	.077	
SC.1.2	**.748***	-.048	.166	
SC.2.2	**.729***	.157	-.012	
SC.1.3	**.655**	.183	-.228	
SC.1.1	**.650***	.304	.153	
SC.2.3	**.627***	.277	-.103	
SC.1.6	**.591***	.328	.028	
SC.2.5	**.477***	.474	-.041	
SC.1.4	.189	**.714**	.214	
SC.1.5	.286	**.689**	.112	
SC.2.4	-.098	**.508**	-.217	
SC.1.7	-.012	.062	**.913**	
Eigen values	4.324	1.246	1.037	
% of total variance	36.031	10.385	8.644	
Cumulative % of variance	36.031	46.416	55.060	
Cronbach's alpha (retained items)	.83	-	-	
Retained items per factor	7	-	-	
	Pattern Coefficients			
Academic Self-Efficacy	F1	F2	F3	F4
SE.2.2	**.785***	.169	.166	.139
SE.2.1	**.746***	.250	.171	.108
SE.2.3	**.728***	.273	.250	.105
SE.1.4	**.687***	.293	.091	-.080
SE.2.4	**.671***	.321	.240	-.023
SE.1.2	**.657**	.119	.130	.310
SE.1.5	**.628***	.311	.147	.154
SE.1.7	**.627***	.414	.238	.032
SE.2.5	**.525**	.399	.026	.251
SE.3.7	.351	**.729***	.089	.011
SE.3.6	.199	**.685***	.164	-.102
SE.3.8	.352	**.684***	.226	.142
SE.3.4	.225	**.582***	.198	.045
SE.3.3	.482	**.487***	.072	.256
SE.3.2	.067	.220	**.762**	.241
SE.3.5	.274	.274	**.564**	.146
SE.3.1	.352	.329	**.523**	-.028
SE.1.3	-.244	.182	-.537	**.625**

SE.1.6	.144	-.077	.132	**.601**
SE.1.1	.331	.096	.277	**.597**
Eigen values	8.210	1.346	1.103	1.034
% of total variance	41.051	6.728	5.516	5.170
Cumulative % of variance	41.051	47.779	53.295	58.465
Cronbach's alpha (retained items)	.90	.80	-	-
Retained items per factor	7	5	-	-

* Items maintained for subsequent analyses. Bolded items reflect initial factor loadings.

As an added reliability measure, a Spearman-Brown split-half reliability coefficient was calculated to represent the internal consistency between the first and second halves of the modified scales (with retained items only) (Carmines & Zeller, 1979; Krathwohl, 2004). Both scales revealed strong Spearman-Brown coefficients for global citizenship (.91) and academic development (.93). These findings further indicate the overall reliability of item inter-correlation on each scale.

Step Seven: *Confirmatory Scale Testing and Refinement*

Based on the modifications conducted within each dimension, two refined overall scales were created. A series of confirmatory factor analyses (CFA) were then conducted on the 30-item global citizenship scale and the 19-item academic development scale. EQS for Windows 6.1 (Multivariate Software, Inc.) was used to assess whether the observed data fit the expected factor structure for each scale. Respondents with any missing data were removed, thus yielding 310 complete cases. For the purposes of model identification, the path coefficient (factor loading) of one item per factor in each dimension was fixed to a value of 1.0. Based on the exploratory factor analysis results, the item yielding the most reliable loading per subscale across subscales was fixed to 1.0. In addition to fixing the path of one item per factor to one, the variance of the third order factor was also fixed to a value of 1.0. The associated error terms in both models were fixed to values of 1.0, which is the default in EQS.

For the analyses of the data, the study used maximum likelihood (ML) estimation on a covariance matrix with raw data as input. An underlying assumption of ML estimation is that the data are normally distributed and can be assessed using Mardia's coefficients (Mardia, 1970). The normalized estimate of the Mardia coefficients indicated that the data were not normally distributed. Therefore, robust estimation was used to correct for any non-normality in the data (Ullman, 2007). Several criteria were used to assess the goodness of fit to the observed data. The first was the chi-square statistic; however, due to its sensitivity to sample size (Bentler & Bonett, 1980), the following

criteria were also used: 1.) a ratio of chi-square to degree of freedom less than 2.00 (Hair, Anderson, Tatham, & Black, 1995); 2.) two incremental indices, Comparative Fit Index [CFI] and Non-Normed Fit Index [NNFI] greater than or equal to .90 (Hu & Bentler, 1999); 3.) a Standardized Root Mean Square Residual [SRMR] smaller than or equal to .07 (Hu & Bentler, 1999); and 4.) a Root Mean Square Error of Approximation [RMSEA] smaller than or equal to .07 (Browne & Cudeck, 1993). The CFI and NNFI test the model against a null or independence model, which assumes there are no covariances among the observed values in the population. The SRMR compares the actual sample correlation matrix to the population correlation matrix resulting from the model and represent the average of the standardized residuals between the two (Kline, 2005). The RMSEA evaluates a hypothesized model by comparing it to a model with perfect fit, and takes into account sample size and model complexity. Table 4.5 presents a summary of the goodness of fit indices.

Dimensional Structure of Global Citizenship Scale. Results of CFA revealed that a higher-order, 10-factor model had an acceptable fit with the data ($\chi^2 = 707.79$, χ^2 to $df = 1.80$, CFI = .91, NNFI =.90, RMSEA = .05, SRMR = .06). The final measurement model consisted of six first order factors (Self-Awareness, Intercultural Communication, Global Knowledge, Involvement in Civic Organizations, Political Voice, Global Civic Activism), three second-order factors (Social Responsibility, Global Competence, Global Civic Engagement), and one higher-order factor (Global Citizenship). All parameter estimates were statistically significant ($z > 1.96$, $p < .01$), with the exception of F7 loading on F10. Effect sizes for each parameter were moderate to large (Cohen, 1988), with all greater than or equal to .10. Figure 4.3 presents the individual item factor loadings for global citizenship. Given that no additional items were deleted to realize a better model fit, the Cronbach's alpha coefficients reported in result of the initial EFA results remain accurate (see Table 4.3). Social responsibility had a weak path to global citizenship; however, theory suggested that social responsibility is a component of Global Citizenship and the overall Goodness of Fit indices suggested that the model had adequate fit. Therefore Social Responsibility and its associated exogenous items were maintained in the measurement model. Nevertheless, the findings suggest that more work needs to be done on the operationalization of social responsibility.

Dimensional Structure of Academic Development Scale. CFA results revealed that the proposed five-factor, measurement model presented a good fit with the data ($\chi^2 = 277.71$, χ^2 to $df = 1.90$, CFI = .94, NNFI =.94, RMSEA = .05, SRMR = .06). The final measurement model consisted of two

first order factors (Choice and Effort, Persistence), two second-order factors (Academic Self-Concept, Academic Self-Efficacy), and one higher-order factor (Academic Development). All parameter estimates were statistically significant ($z > 1.96$, $p < .01$), and effect sizes for each parameter were greater or equal to .10. Figure 4.4 presents the individual item factor loadings for academic development. Given that no additional items were deleted to realize a better model fit, the Cronbach's alpha coefficients reported in results of the initial EFA remain accurate (see Table 4.4).

Table 4.5 *Goodness of Fit Indices (CFA)*

Scale	S-B Scaled χ^2	*df*	CFI	NNFI	RMSEA	SRMR
Global Citizenship:	707.79	394	.91	.90	.05	.06
Academic Development:	277.71	146	.94	. 94	.05	.06

Note: S-B = Satorra-Bentler; CFI = Comparative Fit Index; NNFI = Non-Normed Fit Index; RMSEA = Root Mean-Square Error of Approximation; SRMR = Standardized Root Mean Square Residual.

Figure 4.3 *Final Measurement Model of the Global Citizenship Scale*

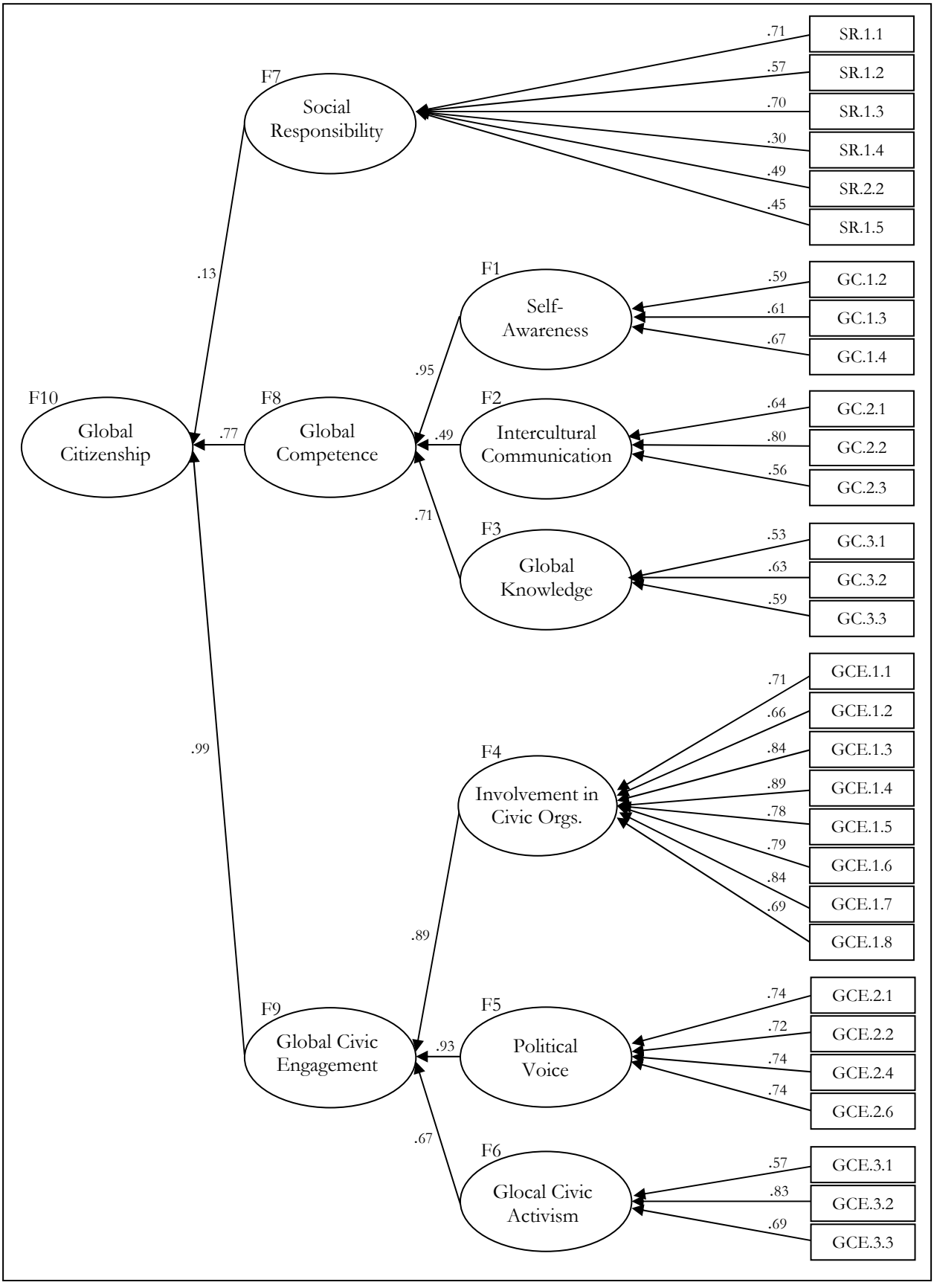
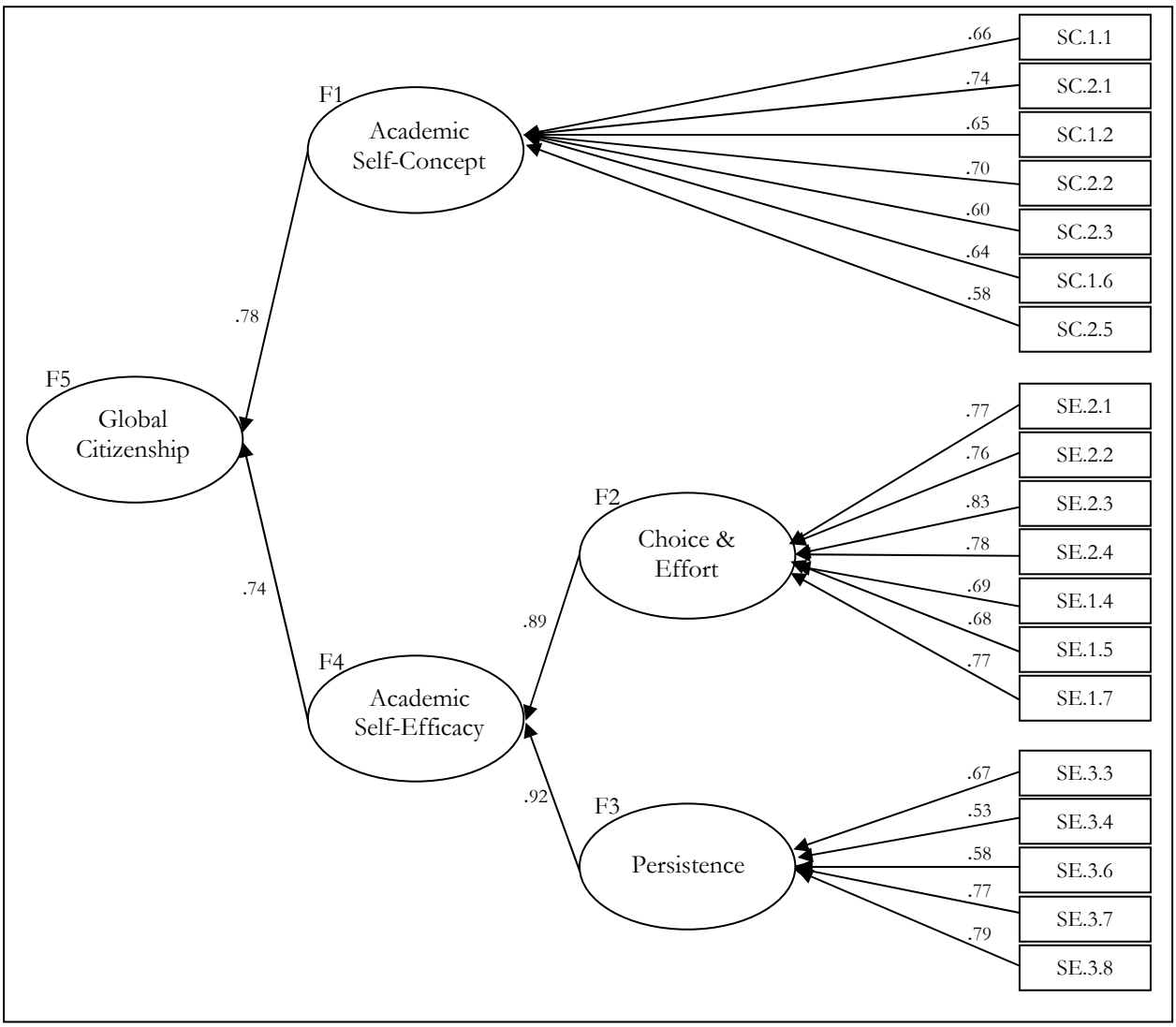


Figure 4.4 *Final Measurement Model of the Academic Development Scale*



Step Eight: *Scale Validation*

According to DeVellis's (1991) eight-step scale development process, the final step in scale development is its validation. Several methods may be used in scale validation, and scale validation should be conceived as an on-going process pursued by scholars interested in using and refining the measurement tool. In this study, two approaches were used to assess the construct validity of the two scales (Krathwohl, 1998). Namely qualitative group interviews and a confirmatory factor analysis using data collected from a subsequent administration of the scale to the same sample were used.

Qualitative Group Interviews. First, three structured group interviews were conducted in April 2009, utilizing Nominal Group Technique (NGT) (Delbecq & VandeVen, 1971) with the goal of further illustrating, defining, and validating the constructs of global citizenship. Because of time limitations, academic development was not a focus of these group sessions. Teachers of participating embedded courses were asked to solicit student volunteers to participate in these interviews. The three interviews were conducted on the University Park and Dubois campuses with 4, 9, and 12 participants, all of whom had recently completed the international travel component of their respective courses.

Group interviews often follow an unstructured process for generating ideas, similar to brainstorming. With NGT, individual participants initially produce ideas in isolation, and each participant is given an equal opportunity to contribute to the process; hence, while NGT is a group interview, it yields data akin to multiple structured individual interviews (Delbecq & VandeVen, 1971). Accordingly, each group interview began with an explanation of the construct of global citizenship and its three dimensions. Students were then asked to silently generate short statements describing essential knowledge or skill sets related to the first dimension for about five minutes. Next, in a round robin fashion, students were asked to offer one statement, which was written on flipchart paper so all generated ideas would be visible to the group. At times it was necessary to ask for clarification, but in no way were statements judged or criticized. This process continued until no more statements were offered. Once participants felt all their ideas were collected, the list responses recorded on the flipchart were reviewed to ensure the entire group was familiar with them. Related ideas were then grouped or merged together. Finally, students were given three colored stickers to place next to the ideas which they believed most accurately described the specific dimension of global citizenship. The process was repeated for all three dimensions of global citizenship.

Table 4.6 offers a list of the most frequently recorded statements regarding each of the three dimensions of global citizenship. The findings revealed that social responsibility was a difficult dimension for students to understand, and as such, the generation of statements was usually quite brief. Statements included acknowledging global disparities exist in the world, recognizing one's own privilege in the world, and striving to minimize ignorance and confront narrow-mindedness. With regard to global competence, students most often reported it was necessary to have intercultural communication skills, be proficient in more than one language, and have knowledge of the history, politics, religion, and major environmental issues of other countries. For these students, global civic engagement involved writing to local and national leaders about important public policy issues,

joining organizations and student clubs that represent other cultural backgrounds and traditions, and concentrating one's energy on a single cause to most effectively make a impact. These findings confirmed social responsibility is a concept that is difficult to grasp to students, but generally the responses were well-aligned with the proposed conceptualization and operationalization of this dimension. Additionally, the participants' responses regarding global competence and global civic engagement largely support the proposed scale.

Table 4.6 *Nominal Group Technique, Student Generated Ideas on Global Citizenship*

Social Responsibility	Global Competence	Global Civic Engagement
▪ Acknowledge that global disparities exist in the world.	▪ Be able to speak other languages.	▪ Reduce greenhouse gas and invest in renewable energy sources.
▪ When meeting people talk about cultural experiences, share knowledge base.	▪ Understand how U.S. policies impact national conditions elsewhere.	▪ Write to local and national leaders about important public policy issues.
▪ Recognize one's own privilege in the world.	▪ Be able to identify commonalities and differences across cultures.	▪ Build connections with people who have less power to help themselves.
▪ Take an active role in combating cultural stereotypes.	▪ Expand repertoire of communication and non-verbal skills.	▪ Engage in international mission trips and volunteer work.
▪ Be engaged with people you come in contact with, talk about it.	▪ Have humility, sensitivity, and respect for other cultural practices.	▪ Seek out individuals of other cultures who would be open to interacting one on one.
▪ Strive to minimize ignorance and confront narrow-mindedness.	▪ Understand the importance of diversity and embrace the diversity of other living conditions.	▪ Join organizations and student clubs that represent other cultural backgrounds and traditions.
▪ Adopt multiple cultural perspectives.	▪ Be adaptable, flexible, and open-minded to living in other cultures.	▪ Choose a cause, concentrate energy there to make an impact, make a difference.
▪ Pay attention to the state of the globe and remember that we are borrowing from our children.	▪ Have knowledge of the history, politics, religion, and major environmental issues of the destination.	▪ Recognize it is not just about helping others, but to understand empathetically the needs of others.

Confirmatory Factor Analysis with Follow-up Data. Because the global citizenship and academic development scales were administered twice, first as a pre-test and again as a post-test, the post-test administration provided an additional opportunity to assess the fit of the proposed factor structure with a new set of data (Krathwohl, 2004).

The complete instrument was administered to the same 22 courses immediately following the conclusion of embedded international instruction in April or May 2009. In total, 288 students completed this second administration, of which 101 were students in enrolled in embedded courses, and 187 were in matched residential-only courses (see Appendix B for the final questionnaire, inclusive of both the global citizenship and academic development scales). As such, the confirmatory factor analyses were conducted utilizing the same factor structure on the 30-item global citizenship scale and the 19-item academic development scale. Respondents with any missing data were removed, which yielded 277 complete cases. Table 4.7 presents a summary of the post-test indices for both scales using the same goodness-of-fit as did the pre-test analysis,.

Table 4.7 *Goodness of Fit Indices (Post CFA)*

Scale	S-B Scaled χ^2	*df*	CFI	NNFI	RMSEA	SRMR
Global Citizenship:	465.64	394	.98	.98	.03	.07
Academic Development:	271.24	146	.92	.91	.06	.06

Note: S-B = Satorra-Bentler; CFI = Comparative Fit Index; NNFI = Non-Normed Fit Index; RMSEA = Root Mean-Square Error of Approximation; SRMR = Standardized Root Mean Square Residual.

Dimensional Structure of Global Citizenship Scale. The findings reported in Table 4.7 revealed that the proposed higher-order, 10-factor model had very good fit with the data ($\chi^2 = 465.64$, χ^2 to *df* = 1.18, CFI = .98, NNFI =.98, RMSEA = .03, SRMR = .07). With the exception of the loadings of F4 on F9, F5 on F9, F7 on F10, and F9 on F10, all other parameter estimates were statistically significant ($z > 1.96$, $p < .01$). Effect sizes for each parameter were moderate to large (Cohen, 1988), with all being larger than or equal to .10. Table 4.8 illustrates that sub-scales were all reliable with Cronbach's alpha coefficients greater than .65 (Cortina, 1993; Hatcher, 1994; Nunnally, 1978).

The final measurement model consisted of the same six first-order factors (Self-Awareness, Intercultural Communication, Global Knowledge, Involvement in Civic Organizations, Political Voice, Glocal Civic Activism) and three second-order factors (Social Responsibility, Global Competence, Global Civic Engagement). All individual items had statistically significant and

meaningful loadings with respect to first-order factors. Also, all first-order factors had statistically significant and meaningful paths with respect to second-order factors. Finally, all second-order factors had significant loadings with the higher-order factor, global citizenship. As was the case with pre-test data, social responsibility had a weak path to global citizenship, indicating once again that more work needs to be done toward the operationalization of this dimension of Global Citizenship.

Table 4.8 *Reliability Indices by Dimension & Sub-dimension (Global Citizenship)*

Dimension and Subscales	Cronbach's alpha
Social Responsibility:	.79
Global Competence:	.83
Self-Awareness	.69
Intercultural Communication	.76
Global Knowledge	.67
Global Civic Engagement:	.94
Involvement in Civic Organizations	.92
Political Voice	.86
Glocal Civic Activism	.74

Dimensional Structure of Academic Development Scale. CFA results revealed that the proposed five-factor, higher-order model once again presented good fit with the data ($\chi^2 = 277.71$, χ^2 to $df = 1.86$, CFI = .92, NNFI =.91, RMSEA = .06, SRMR = .06). All parameter estimates were statistically significant ($z > 1.96$, $p < .01$). Effect sizes for each parameter were moderate to large (Cohen, 1988), with all being greater than or equal to .10. Table 4.8 presents the Cronbach's alpha coefficients for each sub-dimension.

The final measurement model consisted of two first order factors (choice and effort, persistence) and two second-order factors (academic self-concept, academic self-efficacy). All items had significant and meaningful loadings with respect to the first-order factors. Also, all first-order factors had significant and meaningful paths with respect to second-order factors. Similarly, all second-order factors had significant loadings with the higher-order factor, academic development. As reported in Table 4.9, all sub-scales were reliable.

Table 4.9 *Reliability Indices by Dimension & Sub-dimension (Academic Development)*

Dimension and Subscales	Cronbach's alpha
Academic Self-Concept:	.84
Academic Self-Efficacy:	.91
Choice & Effort	.90
Persistence	.77

V SUMMARY

Statistically reliable and valid scales were developed for this study because there are no widely accepted instruments to reliably measure just how international educational experiences enhance academic development and lead to gains in global citizenship. The scale development process used in this study followed an eight-step process (DeVellis, 1991) with the goal to produce reliable and valid measures. In result, quantitative and qualitative evidence supports the validity of the global citizenship and academic development constructs. Consequently, the measurement structures reported in Figures 4.3 and 4.4 were used henceforth in this study.

CHAPTER FIVE: ENROLLMENT ANALYSIS

I INTRODUCTION

According to the 2008 IIE *Open Doors* report, education abroad enrollment does not represent the demographics of the larger U.S. postsecondary enrollment. For example, African Americans accounted for 13.1% of the total postsecondary enrollment in 2006/07, but only 3.8% of African Americans studied abroad (IIE, 2008; NCES, 2009). Hispanic and Latin Americans are similarly underrepresented in education abroad. Caucasians, on the other hand, represent 81.9% of the total study abroad enrollment but only 64.4% of the total postsecondary enrollment. Females dominate both study abroad enrollment at 65.1% and postsecondary enrollment at 57.2%. The majority of students who study abroad are from the social sciences, humanities, and foreign languages, while students who major in engineering, mathematics, computer science, or education are underrepresented. Over 50% of the total education abroad enrollment represents just three academic fields of study: business and management (17%), humanities (13%), and the social sciences (23%). According to the United Nations, almost all of the world's population growth over the next 45 years will occur outside of Europe in less developed regions (United Nations, 2005), yet an overwhelming 57% of U.S. students currently choose destinations in Western Europe. Nearly 50% of all U.S. students who study abroad do so in just four countries: the United Kingdom, Italy, Spain, and France (IIE, 2008).

Although *Open Doors* is the most comprehensive and widely used dataset on U.S. education abroad, it does not provide much information beyond general enrollment patterns and basic student demographics. Because of this, it is difficult to gauge the extent to which particular populations are underrepresented within education abroad or how participation varies by program type. For example, the participation rates of first-generation college students and heritage students are said to be disproportionately low, but limited evidence substantiates this claim (Comp, 2008; Lenz & Wister, 2008; Martinez, Ranjeet, Marx, 2009). Similarly, there is no readily available data regarding the degree to which education abroad participants apply for and/or receive financial aid. There are many claims about heritage learners in education abroad, but again, there is little empirical data to illustrate the enrollment patterns of this population of students. There is insufficient evidence to support frequent claims that short-term, faculty-led programs appeal primarily to students whose financial means preclude longer stays abroad.

To challenge such widely-held assumptions about differential access, further research is needed to supplement national datasets with comprehensive data that more broadly analyzes who studies abroad and how participation varies with programming. To respond to this need and to provide an institutional context, this study includes a comprehensive, four-year enrollment analysis of Penn State's education abroad population. The analysis demonstrates the extent to which underrepresented populations participate in education abroad, and how participation has varied over time and by program duration. Additionally, student GPA data are analyzed to explore the relationship between program participation and academic performance. Cumulative GPAs earned prior, during, and after studying abroad are analyzed to determine how the experience abroad impacts academic performance and to examine claims of their being a "GPA benefit" associated with studying abroad (Clabby, 2008; Merva, 2003).

Four key research questions guide this enrollment analysis: 1.) does contemporary education abroad remain mostly an opportunity for white, middle-class, female students majoring in the social sciences; 2.) what enrollment trends in the education abroad population have manifested between the 2005/06 and the 2008/09 academic years; 3.) how does the student profile vary by education abroad program type; and, 4.) to what extent does education abroad impact academic performance, as indicated by cumulative grade point average (GPA)?

II BACKGROUND

Although nationwide interest in education abroad continues to rise, the characteristics of the typical student profile have remained largely unchanged (Gutierrez, Auerbach, & Bhandari, 2009; Picard, Bernardino, & Ehigiator, 2009). Male students continue to be outnumbered nearly two-to-one by females, and members of racial and ethnic minorities lag far behind in proportional enrollment (IIE, 2008). Western Europe has been and continues to be the most popular geographical destination for U.S. students (Ogden, Soneson, & Weting, 2010). The National Survey of Student Engagement (NSSE, 2007) shows that those who study abroad are more likely than their peers to be majoring in the arts and humanities and to have highly educated parents. The report also states that first-generation college students are far less likely to participate in education abroad and other co-curricular experiences than students whose parents went to college. For a wide variety of physical, social, economic, cultural, and academic reasons, certain populations in U.S. higher education continue to be underrepresented in education abroad programs (Comp, 2005; Dessoff, 2006; Green, Hesel, & Bartini, 2008; Lebold et al., 2005; Obst, Bhandari, & Witherell, 2007).

The need to provide access to education abroad opportunities for all students has gradually become a matter of educational equity and opportunity (Bruz & Fry, 2009; Obst, Bhandari, & Witherell, 2007). Universities and colleges throughout the nation have begun to implement a range of policies and outreach programs to more aggressively encourage education abroad and to provide students with access to a broader array of programs relevant and responsive to diverse backgrounds, interests, and needs (Picard, Bernardino, & Ehigiator, 2009). There is evidence that shows such strategic initiatives can change overall diversity statistics (Obst, Bhandari, & Witherell, 2007). For example, as a joint initiative between its University Office of Global Programs and Office of Educational Equity, Penn State implemented grant-in-aid funding specifically targeting students of color and students with disabilities. At the national level, the U.S. government established the Benjamin A. Gilman International Scholarship under the International Academic Opportunity Act of 2000 with the specific goal to reach out to undergraduate students traditionally underrepresented in education abroad and those with high financial need. Section 504, a civil rights law that prohibits discrimination against individuals with disabilities, has seemingly sparked an awakening to the educational needs of students with disabilities. McEvoy (2005) reports that students with disabilities have increasingly begun participating in education abroad programs.

Of particular concern to those who seek to increase the numbers of students involved in education abroad are the participation rates of first-generation college students. Many of these students are from low-income families and come from historically underrepresented minority groups (Martinez, Ranjeet, & Marx, 2009). Unfortunately, research into understanding the participation rates of first-generation students or students with financial need has been limited, and claims of underrepresentation are more often based on anecdote than on empirical data. In fact, very little written has been written in the past decade on these populations of students (Obst, Bhandari, & Witherell, 2007). The Council for Opportunity in Education (COE) conducted one of the few studies related to access to education abroad opportunities. The study investigated the government sponsored TRIO programs and identified a number of barriers that inhibit participation in education abroad, namely cost, lack of information and advocacy for education abroad, family constraints, and individual limitations. The study concludes that more attention be given to removing institutional barriers to education abroad, and that the campus-based programs that work with these populations incorporate international education opportunities within the information provided to students (Norfles, 2003).

While it is important to create a campus climate that values education abroad and tackles known barriers to traditionally underrepresented populations, creating programs that respond to the needs and interests of diverse populations is essential to encourage greater participation of diverse populations. This will require building a range of innovative programs to take into account the different interests, curricular requirements, educational and developmental goals, and the personal circumstances of these populations (Brux & Fry, 2009). Although various types of programming likely appeal to particular student populations more than others, very little is known specifically about how such enrollment patterns vary with programming. Instead, there are many untested observations, assumptions, and claims that are all too often accepted and circulated as fact.

With regard to short-term programming in particular, The Forum on Education Abroad (2009, pg. 1) states in the introduction of its *Standards of Good Practice for Short-Term Education Abroad Programs* that short-term programs, "greatly expand study abroad participation by attracting students from groups that are less likely to study abroad for a semester or full-year, whether for financial, academic, or personal reasons." The introduction observes that these underrepresented groups include ethnic minorities, first-generation students, non-traditional students, students in fields with extensive course requirements, community college students, student athletes, and males. Similarly in its 2008 report, *Mapping Internationalization on U.S. Campuses* the American Council on Education states short-term, faculty-led programs appeal to students with limited resources (Green, Luu, & Burris, 2008). The assumption here is that students are selecting faculty-led programs because they have limited financial resources that prevent longer stays abroad. Martinez, Ranjeet and Marx (2009) have also claimed short-term programs may be more responsive to the needs and interests of low-income and first-generation students. They explain the idea of leaving home for a semester or a year may be perceived as being neither practical nor appealing. Instead, they claim, short-term programs provide a more likely option to low-income students whose families may see education abroad as being a frivolous endeavor or not necessarily a tangible investment for the future. While intuitively convincing, such pervasive statements about underrepresentation are simply not supported with empirical evidence, thus signaling the need for greater research into student enrollment patterns.

International educators and administrators have long acknowledged underrepresentation of particular student populations. However, it has only been in recent decades that the discussion of underrepresentation has been central to international education programming. Research on underrepresentation in education abroad experiences has to date generally focused on issues such as gender, race/ethnicity, or on underrepresentation by discipline or institution type (Comp, 2008).

More research is needed to identify other underrepresented or unacknowledged student populations and to generate empirical data on how often these populations participate in undergraduate education abroad. Such information will provide international educators with the knowledge and direction to more strategically and purposefully develop programming to respond to a greater diversity of student needs and interests.

III DATA ANALYSIS & RESULTS

The total education abroad population of degree-seeking, Penn State students who earned credit for their international education experiences totaled 8415 across the four academic years, 2005/06, 2006/07, 2007/08, and 2008/09. Results relating to the four research questions that guide this analysis will be presented, primarily utilizing percentage-based comparisons and significance testing where appropriate. The analysis of each research question is sub-divided by demographic, academic, program, and institutional characteristics. Unless otherwise noted, the results present the combined data of all four academic-year enrollments.

Question One: *Does contemporary education abroad remain mostly an opportunity for white, middle-class, female students majoring in the social sciences?*

- *Demographic Characteristics*

Of the total population (n=8415), the majority of participants were female, at 58.6% (see Table 5.1). The vast majority of students (88%) were of a traditional age (≤25) at the time of studying abroad. Accordingly, 57.5% were seniors, followed by 27.2% juniors. Given that many semester and summer programs enroll only upperclassmen, it is not surprising that only 0.7% were freshmen. Regarding race/ethnicity, 77.8% were White and nearly 13% were minority students. The majority of students were Pennsylvania residents (72.8%) and from highly educated families (79.5%). Only 20.5% were first-generation students. Nearly half (48.3%) of all students had no demonstrated financial need or no FAFSA on record at the time of studying abroad. However, 44.5% had some financial need and 7.2% had full academic need.

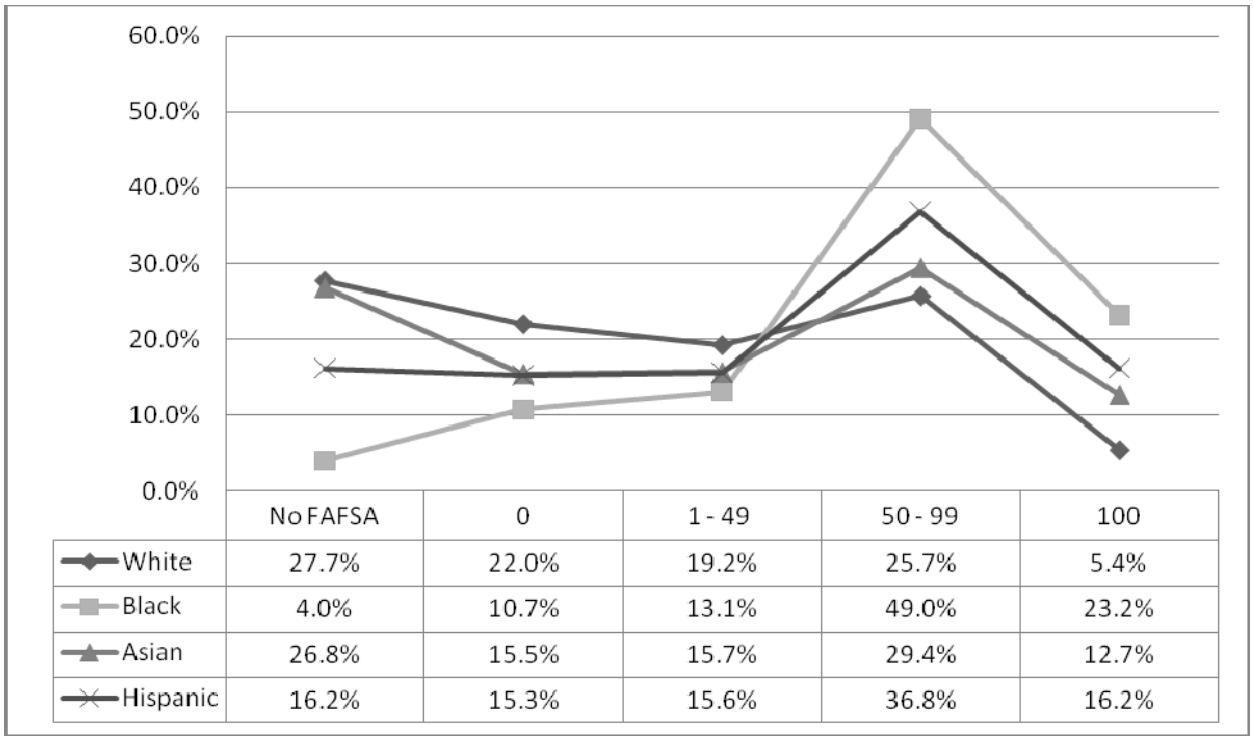
Table 5.1 *Demographic Characteristics of Population, 2005-2009*

Characteristics	Frequency [a]	Percentage %
Gender (n=8415)		
Female	4928	58.6
Male	3487	41.4
Age (n=8414)		
17-19	682	8.1
20-	1980	23.5
21	3238	38.5
22	1244	14.8
23-25	658	7.8
>26	612	7.3
Class Standing (n=8415)		
Senior	4840	57.5
Junior	2291	27.2
Sophomore	589	7.0
Freshman	59	0.7
Graduate/Other[b]	636	7.6
Race/Ethnicity (n=8415)		
White American	6543	77.8
Asian American	466	5.5
Hispanic American	321	3.8
Black American	298	3.5
Foreign	94	1.1
Native American	11	0.1
Unreported	682	8.1
First Generation Status (n=8415)		
First Generation	1721	20.5
Not First Generation	6694	79.5
Need Index (n=8415)		
No FAFSA	2351	27.9
0	1714	20.4
1-49	1508	17.9
50-99	2238	26.6
100	604	7.2
Residency Status (n=8415)		
Pennsylvania Resident	6130	72.8
Non-Pennsylvania Resident	2285	27.2

a. All non-degree and provisional enrollments have been removed from the education abroad participant data. All enrollment data from Great Valley, College of Medicine, and the PA College of Technology has also been removed.
b. Includes enrollment data from the Dickinson School of Law.

Figure 5.1 illustrates that students with the highest financial need are minority students. Only 14.7% of African American students have no need or no FAFSA on record, yet 72% have moderate to full financial need. Similarly, 53% of Hispanic American students have moderate to full need, and just over 30% have no need or no FAFSA on record. Only 5.4% of White students have full need and nearly 50% have no need or no FAFSA on record. In much the same way, first-generation students are disproportionately represented among those with higher financial need. Over 60% of first-generation students have moderate to full financial need compared to just over 25% of students who come from highly educated families. Similarly, 55% of these students have no financial need or FAFSA on record compared to roughly 20% of first-generation students.

Figure 5.1 *Demographic Characteristics of Population: Race/Ethnicity & Need Index, 2005-2009*



	No FAFSA	0	1 - 49	50 - 99	100
White	27.7%	22.0%	19.2%	25.7%	5.4%
Black	4.0%	10.7%	13.1%	49.0%	23.2%
Asian	26.8%	15.5%	15.7%	29.4%	12.7%
Hispanic	16.2%	15.3%	15.6%	36.8%	16.2%

- *Academic Characteristics*

Students' major disciplines (see Table 5.2) represented a wide range of fields of study, with Business Management and Administrative Services representing nearly 24.7% (n=2079) of all students who studied abroad during this timeframe. This finding contradicts claims at other institutions that international education is not happening for business students (Praetzel, Curcio, & Dilorenzo, 1996). Together with Communications, Social Science and History, Architecture and Related Programs, and Engineering, five fields represented 52.8% of the total study abroad

population. The mean GPA for all participants is 3.38 (out of 4.0), which indicates that education abroad programs enroll academically successful students across all program types.

Table 5.2 *Academic Characteristics of Population, 2005-2009*

Characteristics	Frequency	Percentage/Mean
Field of Study[a]		
Business Management and Administrative Services	2079	24.7
Communications	791	9.4
Social Science and History	597	7.1
Architecture and Related Programs	496	5.9
Engineering	478	5.7
Agriculture	394	4.7
Foreign Languages and Literature	389	4.6
Education	328	3.9
Health	311	3.7
Life Sciences	296	3.5
Liberal/General Studies	277	3.3
Visual and Performing Arts	257	3.1
Psychology	232	2.8
Area, Ethnic, Cultural and Gender Studies	221	2.6
Undeclared	218	2.6
Physical Sciences	203	2.4
English Language and Literature/Letters	196	2.3
Computer and Information Sciences	174	2.1
Home Economics	159	1.9
Security and Protective Services	147	1.7
Law and Legal Studies	64	0.8
Philosophy and Religious Studies	29	0.3
Parks, Recreation, Leisure, and Fitness Studies	28	0.3
Multi/Interdisciplinary Studies	25	0.3
Mathematics	22	0.3
Public Administration and Social Service Professions	4	0.0
Cumulative GPA (Semester prior to studying abroad) (n=8350)		
Semester	3562	3.43
Embedded	2767	3.30
Summer	1910	3.38
Academic Year	111	3.42

a. Field of study was determined by recoding students' majors according to the National Center for Education Statistics' *Classification of Instructional Programs, 2000.*

- *Programmatic Characteristics*

The majority of students studied abroad for one semester (42.5%), followed by 33.4% who studied abroad on embedded programs, and 22.7% on summer programs (see Table 5.3). Academic year students represented just 1.3% of the total population. The majority of students (71.1%) participated in Penn State-facilitated programs, and 71.5% of all students chose to study in Europe, with most in one of four countries: Italy, Spain, England, and France. China (3.1%) and Costa Rica (1.9%) were the only two non-Western countries listed in the overall top ten.

Table 5.3 *Program Characteristics of Enrollment, 2005-2009*

Characteristics	Frequency	Percentage %
Program Type (n=8415)		
Semester	3580	42.5
Embedded	2814	33.4
Summer	1910	22.7
Academic Year	111	1.3
Program Provider (n=8415)[a]		
Penn State[b]	5979	71.1
IES	967	11.5
CIEE	954	11.3
Arcadia	288	3.4
AESOP/CIC	160	1.9
Temple	34	0.4
IAU	33	0.4
Most Popular Destinations Ranking (Countries=47)		
Italy	1863	22.1
Spain	1138	13.5
England	828	9.8
France	501	6.0
Australia	379	4.5
Germany	335	4.0
China	260	3.1
Ireland	258	3.1
Netherlands	236	2.8
Costa Rica	164	1.9
Regional Breakdown Ranking (n=8415)		
Europe	6016	71.5
Latin America	868	10.3
Asia	540	6.4
Oceania	519	6.2

Africa	270	3.2
North America	176	2.1
Middle East	26	0.3

a. A *program provider* is an institution or organization that offers education abroad program services to students from a variety of institutions. A provider may be a college or university, a non-profit organization, a for-profit business, or a consortium.
b. Includes all Penn State-managed programs, including all reciprocal exchanges, direct linkage agreements, embedded programming and summer, faculty-led programs facilitated by Penn State Conferences and Institutes (C&I).

- *Institutional Characteristics*

As University Park is home to the majority of Penn State students, the campus is heavily represented in the proportion of students who study abroad, at 82.9% (see Table 5.4). Within University Park enrollments, the Smeal College of Business and the College of the Liberal Arts represent 45% of the total education enrollment. Outside of University Park, the five degree-granting campuses (Abington, Altoona, Berks, Erie-Behrend, Harrisburg-Capital) represent 58% of the total enrollment, while the 12 campuses of the University College represent the remaining 42%, or just 7.2% of the total education abroad enrollment.

Table 5.4 *Institutional Characteristics, 2005-2009*

Characteristics	Frequency	Percentage % of Total	College Enrollment
College of Enrollment: University Park[a] (N=6973)			
Business	1747	25.1	14.3
Liberal Arts	1387	19.9	12.7
Arts & Architecture	727	10.4	3.9
Health and Human Development	654	9.4	12.1
Communications	609	8.7	6.7
Engineering	518	7.4	15.8
Education	359	5.1	6.0
Science	316	4.5	8.4
Agricultural Sciences	305	4.4	4.6
Earth and Mineral Sciences	196	2.8	3.3
Other[b]	79	1.0	9.6
Information Sciences and Technology	76	1.1	2.7
Campus of Enrollment[c] (n=8414)			
University Park	6973	82.9	56.4
Erie-Behrend	285	3.4	5.5
Altoona	167	2.0	5.1

Abington	147	1.7	4.3
Harrisburg/Capital	142	1.7	5.0
Brandywine	139	1.7	2.1
Berks	95	1.1	3.6
York	76	0.9	2.0
DuBois	74	0.9	1.2
Dickinson School of Law	64	0.8	0.8
New Kensington	55	0.7	1.1
Lehigh Valley	44	0.5	1.0
Worthington Scranton	43	0.5	1.8
Beaver	38	0.5	1.1
Hazleton	19	0.2	1.6
Wilkes Barre	17	0.2	0.9
Mont Alto	13	0.2	1.5
Fayette	9	0.1	1.4
Greater Allegheny	7	0.1	1.0
Schuylkill	6	0.1	1.3
Shenango	1	0.0	1.1

a. University enrollment information is based on available Fall 2008 data. Percentages have been calculated based on total University Park enrollment figures.
b. Includes DUS, School of Nursing, Inter-college Undergraduate Programs, Interdisciplinary Graduate Programs, and School of International Affairs.
c. University enrollment figures are calculated in proportion to total university enrollments, less enrollments from Great Valley, College of Medicine, PA College of Technology or the World Campus.

Question Two: ***What enrollment trends in the education abroad population have manifested between the 2005/06 and the 2008/09 academic years?***

Since 2005/06, education abroad enrollments at Penn State have seen consistent annual growth, with rates between 4.9% and 11.9% per year (see Table 5.5). In 2005/06, total enrollment stood at 1886. By 2008/09, enrollment had jumped by over 27% to 2401 and seems poised for continued increases. Total growth cannot necessarily be attributed solely to any one program type or semester. By removing embedded program enrollments (n=2814), which can occur at all times during the academic year, the data show there have been consistent total enrollment increases across all semesters: fall, spring, and summer. Academic year enrollments have generally remained steady.

Table 5.5 *Semester Enrollments by Academic Year, 2005-2009*

Semester	05/06	06/07	07/08	08/09	Total
Academic Year	21 (1.7)	29 (1.5)	24 (1.1)	33 (1.4)	107
Fall	255 (13.5)	210 (10.6)	372 (17.3)	389 (16.2)	1226
Spring	989 (52.4)	1050 (53.1)	921 (42.9)	1233 (51.3)	4193
Summer	621 (32.9)	690 (34.9)	828 (38.6)	746 (31.1)	2885
Total	1886	1979	2145	2401	8411

- *Demographic Characteristics*

Across the four academic years, there has been little variation in student demographics, in spite of a general overall increase in enrollments (see Table 5.6). Gender, race/ethnicity, and first-generation status have remained largely unchanged. The non-traditional student population and non-PA residents, however, have shown incremental annual increases. Trends also suggest a slightly increasing number of students have no or very little financial need. Accordingly, those with full need are decreasing.

Table 5.6 *Demographic Characteristics: Changes Over Time, 2005-2009*

	Semester			
	05/06 (%)	06/07 (%)	07/08 (%)	08/09 (%)
Gender (n=8411)				
Female	1090 (57.8)	1178 (59.5)	1268 (59.1)	1391 (57.9)
Male	796 (42.2)	801 (40.5)	877 (40.9)	1010 (42.1)
Race/Ethnicity (n=8411)				
White American	1499 (79.5)	1550 (78.3)	1645 (76.7)	1847 (76.9)
Asian American	106 (5.6)	99 (5.0)	131(6.1)	130(5.4)
Hispanic American	77 (4.2)	64 (3.3)	88 (4.2)	92 (3.8)
Black American	54 (2.9)	65 (3.3)	85 (4.0)	94 (3.9)
Foreign	13 (0.7)	16 (0.8)	25 (1.2)	40 (1.7)
Native American	0 (0.0)	2 (0.1)	5 (0.2)	3 (0.1)
Unreported	137 (7.3)	183 (9.2)	165 (7.7)	195 (8.1)
First Generation Status (n=8411)				
First Generation	394 (20.9)	410 (20.7)	424 (19.8)	493 (20.5)
Not First Generation	1492 (79.1)	1569 (79.3)	1721 (80.2)	1908 (79.5)
Non-Traditional Student (n=8411)				
Age ≤ 25	1785 (94.6)	1860 (94.0)	1970 (91.8)	2182 (90.9)
Age 26+	101 (5.4)	118 (6.0)	175 (8.2)	219 (9.1)
Need Index (n=8411)				

No FAFSA	606 (32.1)	575 (29.1)	557 (26.0)	613 (25.5)
0	304 (16.1)	357 (18.0)	478 (22.3)	573 (23.9)
1-49	295 (15.6)	350 (17.7)	405 (18.9)	458 (19.1)
50-99	494 (26.2)	535 (27.0)	577 (26.9)	630 (26.2)
100	187 (9.9)	162 (8.2)	128 (6.0)	127 (5.3)
Residency Status (n=8415)				
Pennsylvania Resident	1426 (75.6)	1475 (74.5)	1540 (71.8)	1687 (70.3)
Non-Pennsylvania Resident	460 (24.4)	504 (25.5)	605 (28.2)	714 (29.7%)

Note: Four students studied abroad across two academic semesters during calendar year 2006. Because of this irregularity, these students have been omitted from the analysis.

- *Academic Characteristics*

Of the top fields of study represented in the population, Business Management and Administrative services is the only one to show proportionally consistent increases over the four academic years, accounting for 28.5% of the total education abroad enrollment in 2008/09 (see Table 5.7).

Table 5.7 *Academic Characteristics: Changes Over Time, 2005-2009*

	Semester			
	05/06 (%)	06/07 (%)	07/08 (%)	08/09 (%)
Field of Study (n=4439)[a]				
Business Mgmt. and Admn. Services	403 (21.4)	471 (23.8)	521 (24.3)	684 (28.5)
Communications	162 (8.6)	190 (9.6)	219 (10.2)	220 (9.2)
Social Science and History	132 (7.0)	163 (8.2)	153 (7.1)	148 (6.2)
Architecture and Related Programs	144 (7.6)	112 (5.7)	118 (5.5)	122 (5.1)
Engineering	118 (6.3)	72 (3.6)	136 (6.3)	151 (6.3)

a. Percentages based on total population.

- *Programmatic Characteristics*

Contrary to expectation, there appear to be no major shifts within program type (see Table 5.8). Semester enrollments have maintained roughly 42% of the total study abroad population since 2005/06. Embedded and summer program enrollments have similarly remained static at roughly 33% and 22%, respectively. Academic year enrollments have remained unchanged accounting for just over 1% of the total enrollment. While Penn State-facilitated programs continue to attract the majority of enrollments (71.1%), the proportion appears to be lessening as students favor provider programs (i.e., IES, CIEE, Arcadia, etc.). The top five most popular countries have remained

unchanged. Trends suggest a consistent drop in enrollments for Australia, with Oceania now hosting just 60% of what it did two years earlier in 2006/07. Although Latin America shows a promising upward trend and is now the second most popular hosting region (11.4%), overall enrollments to non-traditional destinations have remained relatively unchanged.

Table 5.8 *Program Characteristics: Changes Over Time, 2005-2009*

	Semester			
	05/06 (%)	06/07 (%)	07/08 (%)	08/09 (%)
Program Type (n=8415)				
Semester	839 (44.5)	832 (42.0)	888 (41.4)	1021 (42.5)
Embedded	644 (34.1)	637 (32.2)	722 (33.7)	811 (33.8)
Summer	382 (20.3)	481 (24.3)	511 (23.8)	536 (22.3)
Academic Year	21 (1.1)	29 (1.5)	24 (1.1)	33 (1.4)
Program Provider (n=8411)				
Penn State	1360 (72.1)	1441 (72.8)	1536 (71.6)	1640 (68.3)
IES	219 (11.6)	207 (10.5)	228 (10.6)	312 (13.0)
CIEE	189 (10.0)	229 (11.6)	252 (11.7)	284 (11.8)
Arcadia	85 (4.5)	60 (3.0)	77 (3.6)	65 (2.7)
Other[a]	33 (1.7)	42 (2.1)	52 (2.5)	100 (4.2)
Most Popular Countries Ranking				
1.	Italy	Italy	Italy	Italy
2.	Spain	Spain	Spain	Spain
3.	England	England	England	England
4.	France	France	France	France
5.	Australia	Australia	China	Germany
6.	Multi-country	Ireland	Australia	China
7.	Netherlands	New Zealand	Germany	Australia
8.	Ireland	Netherlands	Ireland	Netherlands
9.	Germany	Germany	Netherlands	Ireland
10.	Panama	Sweden	New Zealand	Turkey
Regional Breakdown Ranking (n=8411)				
Europe	1390 (73.7)	1389 (70.2)	1492 (69.6)	1745 (72.7)
Latin America	205 (10.9)	192 (9.7)	197 (9.2)	274 (11.4)
Asia	82 (4.3)	111 (5.6)	196 (9.1)	149 (6.2)
Oceania	138 (7.3)	163 (8.2)	119 (5.5)	98 (4.1)
Africa	20 (1.1)	88 (4.4)	90 (4.2)	71 (3.0)
North America	50 (2.7)	36 (1.8)	39 (1.8)	51 (2.1)
Middle East	1 (0.1)	0 (0.0)	12 (0.6)	13 (0.5)

a. Includes AESOP, CIC, Temple, and IAU.

- *Institutional Characteristics*

The University Park campus sends the majority of Penn State students abroad, accounting for 82.9% of students sent abroad from all Penn State campuses (see Table 5.9). However, the proportion appears to be slightly lessening in recent years, with the total non-University Park enrollment now accounting for 17.1% of the total enrollment. However, when embedded programs are removed, the proportions shift dramatically to 95.7% and 4.3%, powerfully confirming the popularity of embedded programming on non-University Park campuses.

Table 5.9 *Institutional Characteristics: Changes Over Time, 2005-2009*

	Semester				
	05/06 (%)	06/07 (%)	07/08 (%)	08/09 (%)	Total
Campus of Enrollment					
University Park	1465 (77.7)	1669 (84.3)	1816 (84.7)	2019 (84.1)	6969 (82.9)
Non-University Park	421 (22.3)	310 (15.7)	329 (15.3)	382 (15.9)	1442 (17.1)

Question Three: ***How does the student profile vary by education abroad program type?***

Comparing enrollment variation by program type can illustrate the extent to which programming appeals differently to particular student populations. In particular, the data will show the extent to which financial need impacts education abroad choice, how baseline GPA data differ by program type, and the extent to which heritage varies with program destination.

- *Demographic Characteristics*

Female students represented the majority (58.6%) across all education abroad program types and many chose semester-length programs (44.7%) (see Table 5.10). Male students, however, were as equally likely to choose an embedded program as a semester program. The gender imbalance started to level off with embedded program enrollments, at 52.5% (female) and 47.5% (male). White (44.0%) and Asian (41.0%) students predominantly chose semester-length programs, while Hispanic (45.2) and Black (49.7) students chose embedded programs. Overall, 37.4% of all minority students enrolled in embedded programs compared to just over 30% of White students. Foreign students, who are mostly studying in the U.S. as degree-seeking students, may also study abroad as part of their studies. Of those that did study abroad, 62.8% (n=94) chose embedded programs. An analysis

of expected, as opposed to observed, data revealed White Americans were as overrepresented in semester programs by roughly 5% as they were underrepresented in embedded programs. Conversely, minority students are underrepresented in semester and summer programs, but overrepresented in embedded programs by nearly 14%. In particular, Black Americans were significantly overrepresented in embedded programs by nearly 50% of expected levels.

Participation by class standing also varied by program type. Seniors and juniors enrolled in semester length programs, at 53% and 41.9%, respectively. Sophomores (68.1%) and freshman (93.2%) predominantly studied abroad through embedded programs. This is likely due to the fact that most programs require junior and senior status for eligibility consideration. Graduate students may also study abroad, and 96.1% chose summer and embedded programs. This is to be expected as most semester-length programs are typically designed for undergraduates and do not offer graduate-level credit.

First-generation students were represented in all program types, but 44.3% chose embedded programs. Students who were not first-generation chose semester-length programs at roughly the same rate (44.9%). In fact, first-generation students made up only 16.1% of semester program enrollments, the lowest percentage across the four program types. First-generation students were significantly underrepresented in semester and summer programs and overrepresented in embedded programs by nearly 35% of expected levels. Traditionally-aged students represented 92.7% of the total education abroad enrollment. However, when comparing across program type, non-traditional students overwhelmingly participated in short-term programs: 10.1% chose summer programs and 84.2% studied abroad on embedded programs. This participation rate is nearly three times as high as would be expected. Pennsylvania residents appear to favor semester-length programs (40.7%), but are similarly drawn to embedded programs (35.6%). Non-Pennsylvania residents were heavily drawn to semester-length programs, almost two-to-one over summer and embedded programs.

Table 5.10 *Demographic Characteristics: By Program Type, 2005-2009*

	Program Type				
	Semester (%)	Summer (%)	Embedded (%)	AY (%)	
Gender (n=8415)					
Female	2202 (44.7)	1191 (24.2)	1476 (30.0)	59 (1.2)	100%
Male	1378 (39.5)	719 (20.6)	1338 (38.4)	52 (1.5)	100%

Race/Ethnicity (n=8415)					
White American	2880 (44.0)	1492 (22.8)	2097 (32.0)	76 (1.2)	100%
Asian American	191 (41.0)	114 (24.5)	149 (32.0)	12 (2.6)	100%
Hispanic American	137 (35.5)	70 (18.7)	110 (45.2)	4 (0.6)	100%
Black American	90 (30.2)	54 (18.1)	148 (49.7)	6 (2.0)	100%
Foreign	10 (10.6)	25 (26.6)	59 (62.8)	0 (0.0)	100%
Native American	7 (63.6)	1 (9.1)	3 (27.3)	0 (0.0	100%
Unreported	265 (39.0)	154 (22.6)	248 (36.5)	13 (1.9)	100%
Class Standing (n=8415)					
Senior	2565 (53.0)	967 (20.0)	1262 (26.1)	46 (1.0)	100%
Junior	960 (41.9)	720 (31.4)	551 (24.1)	60 (2.6)	100%
Sophomore	29 (4.9)	154 (26.1)	401 (68.1)	5 (0.8)	100%
Freshman	1 (1.7)	3 (5.1)	55 (93.2)	0 (0.0)	100%
Graduate/Other[a]	25 (3.9)	66 (10.4)	545 (85.7)	0 (0.0)	100%
First Generation Status (n=8415)					
First Generation	575 (33.4)	358 (20.8)	763 (44.3)	25 (1.5)	100%
Not First Generation	3005 (44.9)	1552 (23.2)	2051 (30.6)	86 (1.3)	100%
Non-Traditional Student (n=8414)					
Age ≤ 25	3547 (45.5)	1848 (23.7)	2297 (29.4)	109 (1.4)	100%
Age 26+	33 (5.4)	62 (10.1)	516 (84.2)	2 (0.3)	100%
Residency Status (n=8415)					
PA Resident	2494 (40.7)	1362 (22.2)	2185 (35.6)	89 (1.5)	100%
Non-PA Resident	1086 (47.5)	548 (24.0)	629 (27.5)	22 (1.0)	100%
Need Index (n=8411)					
No FAFSA	1108 (30.9)	599 (31.4)	623 (22.1)	21 (19.6)	
0	845 (23.6)	405 (21.2)	445 (15.8)	17 (15.9)	
1-49	627 (17.5)	358 (18.7)	505 (17.9)	18 (16.8)	
50-99	838 (23.4)	463 (24.2)	897 (31.9)	38 (35.5)	
100	162 (4.5)	85 (4.5)	344 (12.2)	13 (12.1)	

a. Includes enrollment data from the Dickinson School of Law.

A one-way between subjects ANOVA was used to determine if there are significant differences between program type and demonstrated financial need, as indicated by a student's need index. For this purpose, those with no FAFSA on record were re-coded to equate with having zero need. Results show program type significantly varied by need index. There was a statistically significant main effect for program type ($F(3, 8411) = 95.83$, $p < 0.001$). Post-hoc testing using Tukey's Honestly Significant Difference (HSD) test indicated there were significant differences by need index for the semester ($M = 27.39$, $SD = 36.31$), embedded ($M = 42.39$, $SD = 40.46$), and

academic year (*M* = 44.50, *SD* = 42.28). There was also a statistically significant difference between the summer (*M* = 28.45, *SD* = 36.99) and the academic year and embedded programs (see Table 5.11). There were no significant differences, however, for semester and summer programs, which suggests financial need does not impact whether one attends a summer or semester program. However, practical significance as measured by partial eta squared was small (partial η^2 = 0.03). While need index does vary significantly across program types, the effect size is small. Thus, participation by program type does appear to be influenced to a minimal degree by financial need.

Table 5.11 *Demographic Characteristics: Program Type & Need Index, 2005-2009*

	Program Type			
	Semester (%)	Summer (%)	Embedded (%)	AY (%)
Need Index[1]	27.39_{a} (36.31)	28.45_{a} (36.99)	42.39_{b} (40.46)	44.50_{bc} (42.28)

[1] F(3, 8411) = 95.83, p < 0.001. Standard deviations appear in parenthesis below means. Means with differing subscripts within rows are significantly different at the p<.001 level based on post-hoc testing using Tukey's Honestly Significant Difference (HSD).

- *Academic Characteristics*

Particular fields of study were heavily represented in semester-length programs, notably architecture (66.1%), communications (58.7%), and education students (61.3%). The majority (53.5%) of students majoring in foreign languages and literature participated in one semester or longer programs (see Table 5.12). Very few of these students participated in embedded programs. Agriculture (73.6%), engineering (65.3%), and students majoring in the physical sciences (45.8%) were heavily drawn to embedded programs, perhaps mostly due to curricular restraints that make studying abroad for a semester extremely difficult. Interestingly, those students with undeclared majors are most likely to study abroad on a short-term program (93.5%), perhaps using study abroad as a way to explore one's academic interests.

Results show baseline GPAs significantly varied by program type. A one-way between subjects ANOVA indicated there was a statistically significant main effect for program type (*F(3, 8346)* = 50.67, *p* < 0.01). Post-hoc testing using Tukey's Honestly Significant Difference (HSD) test indicated there were significant differences between initial grade point averages for the semester (*M* = 3.43, *SD* = 0.34) and summer (*M*= 3.38, *SD* = 0.40) programs and the semester and embedded (*M* = 3.30, *SD* = 0.52) programs. There was also a statistically significant difference between the summer and embedded programs and the academic year (*M* =3.34, *SD* = 0.37). However, practical

significance as measured by partial eta squared was small (partial $\eta^2 = 0.02$). These results are not particular surprising given that most education abroad programs require a minimum 3.0 GPA, with the notable exception of embedded programs. Participating in an embedded program is much like registering for a residential course; provided that a student meets perquisites, usually any student can enroll. As the mean GPA for embedded programs is relatively high, yet with a larger standard deviation, these participants are also academically successful students.

Table 5.12 *Academic Characteristics: Program Type, 2005-2009*

	Program Type			
	Semester (%)	Summer (%)	Embedded (%)	AY (%)
Field of Study (n=5770)				
Agriculture	67 (17.0)	34 (8.6)	290 (73.6)	3 (0.8)
Architecture and Related Programs	328 (66.1)	15 (3.0)	153 (30.8)	0 (0.0)
Business Mgmt. and Admn. Services	973 (46.8)	541 (26.0)	557 (26.8)	8 (0.4)
Communications	464 (58.7)	173 (21.9)	150 (19.0)	4 (0.5)
Education	201 (61.3)	42 (12.8)	76 (23.2)	9 (2.7)
Engineering	104 (21.8)	56 (11.7)	312 (65.3)	6 (1.3)
Foreign Language and Literature	182 (46.8)	159 (40.9)	22 (5.7)	26 (6.7)
Life Science	120 (40.5)	64 (21.6)	105 (35.5)	7 (2.4)
Physical Sciences	56 (27.6)	47 (23.2)	93 (45.8)	7 (3.4)
Social Science and History	290 (48.6)	166 (27.8)	121 (20.3)	20 (3.4)
Undeclared	13 (6.0)	38 (17.4)	166 (76.1)	1 (0.5)
Mean GPA[1]	3.43_a	3.38_b	3.30_c	3.42_{ab}
(SD)	(.337)	(.400)	(.518)	(.369)

[1] $F(3, 8350) = 50.75$, $p < 0.01$. Standard deviations appear in parenthesis below means. Means with differing subscripts within rows are significantly different at $p<.01$ based on post-hoc testing using Tukey's Honestly Significant Difference (HSD).

- *Programmatic Characteristics*

Italy is the leading destination for semester, summer, and embedded programs (see Table 5.13). However, Japan is the leading country for full-year study, while Italy drops further down the top ten list. Although enrollments are heavily skewed in favor of European destinations for semester and summer programming, there is greater diversification and overall enrollment balance among embedded program destinations. There is similar variation when comparing regions. For example, most students who study abroad in Latin America (70%) or North America (84.7%) do so through embedded programs. In fact, 43% of all embedded programs are to destinations outside of Europe, compared to 22.8% of semester-length programs and 16.5% of summer programs.

Table 5.13 *Program Characteristics: Program Type, 2005-2009*

	Most Popular Countries			
Rank	Semester (n)	Summer (n)	Embedded (n)	AY (n)
1.	Italy (886)	Italy (696)	Italy (298)	Japan (28)
2.	Spain (756)	England (169)	Spain (207)	France (13)
3.	England (445)	Netherlands (166)	England (205)	Germany (10)
4.	Australia (291)	Spain (165)	Germany (175)	Spain (10)
5.	France (229)	France (104)	France (155)	England (9)
6.	Ireland (137)	Egypt (69)	Canada (145)	Multi-Country (7)
7.	New Zealand (89)	Germany (65)	China (143)	China (6)
8.	Germany (85	Switzerland (60)	Costa Rica (127)	Argentina (3)
9.	Argentina (74)	Ireland (58)	Multi-Country (120)	Egypt (3)
10.	Netherlands (62)	China (57)	Peru (97)	Italy (3)

	Most Popular Regions				
	Semester (%)	Summer (%)	Embedded (%)	AY (%)	
Europe	2764 (45.9)	1595 (26.5)	1603 (26.6)	54 (0.9)	100%
Latin America	175 (20.2)	78 (9.0)	608 (70.0)	7 (0.8)	100%
Asia	192 (35.6)	89 (16.5)	221 (40.9)	38 (7.0)	100%
Oceania	376 (72.4)	48 (9.2)	93 (17.9)	2 (0.4)	100%
Africa	64 (23.7)	69 (25.6)	131 (48.5)	6 (2.2)	100%
North America	2 (1.1)	23 (13.1)	149 (84.7)	2 (1.1)	100%
Middle East	7 (26.9)	8 (30.8)	9 (34.6)	2 (7.7)	100%

Upon closer examination, these data also suggest heritage plays a significant role in where students choose to study (see Table 5.14). The data show White students (73.6%) predominantly studied in Europe and also represented 84.6% percent of all students who chose to study in Oceania. Although the majority of Asian students (55.4%) chose to study in Europe, another 26% chose to study in Asia. After Europe, Hispanic students most often chose destinations in Latin America (14.0%). Black students were proportionately the largest minority choosing destinations in Africa (10.0%) as were Asian students choosing Asian destinations (22.4%). Examining expected levels, as opposed to observed data, reveals an even clearer picture of this heritage effect. White students were overrepresented in Europe and Australia but underrepresented in other regions of the world by nearly 15%. Conversely, minority students were underrepresented in Europe by nearly 18% and overrepresented in all other regions. In particular, Black students studied in Africa at three times the expected levels and similarly, Asian students chose destinations in Asia four times more than expected.

Table 5.14 *Program Characteristics: Race/Ethnicity by Region, 2005-2009*

	Region							
	Europe (%)	Africa (%)	Asia (%)	L. Amer. (%)	M. East (%)	N. Amer. (%)	Oceania (%)	
Race/Ethnicity (n=6545)								
White	4818	184	303	643	23	135	439	100%
	(73.6)	(2.8)	(4.6)	(9.8)	(0.4)	(2.1)	(6.7)	
Asian	258	14	121	47	0	8	18	100%
	(55.4)	(3.0)	(26.0)	(10.1)	(0.0)	(1.7)	(3.9)	
Hispanic	220	10	25	45	1	4	16	100%
	(68.5)	(3.1)	(7.8)	(14.0)	(0.3)	(1.2)	(5.0)	
Black	178	27	23	54	0	11	5	100%
	(59.7)	(9.1)	(7.7)	(18.1)	(0.0)	(3.7)	(1.7)	
Foreign	59	1	19	11	0	4	0	100%
	(62.8)	(1.1)	(20.2)	(11.7)	(0.0)	(4.3)	(0.0)	
Native	4	1	1	1	0	1	3	100%
	(36.4)	(9.1)	(9.1)	(9.1)	(0.0)	(9.1)	(27.3)	
Unreported	479	33	48	67	2	13	38	100%
	(70.4)	(4.9)	(7.1)	(9.9)	(0.3)	(1.9)	(5.6)	

- *Institutional Characteristics*

At 49.6%, the largest proportion of University Park students chose semester-length programs, while only 8.5% of non-University Park students did so (see Table 5.15). Instead, the vast majority of non-University Park students chose embedded programs (83.2%). This speaks to the importance of campus culture in directing education abroad participation, and further suggests the influence of faculty leaders in promoting embedded programming.

Table 5.15 *Institutional Characteristics: Program Type, 2005-2009*

	Program Type			
	Semester (%)	Summer (%)	Embedded (%)	AY (%)
Campus of Enrollment				
University Park	3457 (49.6)	1809 (25.9)	1614 (23.1)	93 (1.3)
Non-University Park	123 (8.5)	101 (7.0)	1200 (83.2)	18 (1.2)

Question Four: ***To what extent does education abroad impact academic performance, as indicated by cumulative grade point average (GPA)?***

Results presented earlier indicated statistically significant differences exist between baseline GPA by program type, although the differences are very small. In order to determine how academic performance is impacted by education abroad experiences, cumulative GPA data were extracted at three points in time: cumulative GPAs earned prior to studying abroad, the semester abroad (reflecting the final grades earned while abroad), and the semester upon returning from abroad. First, a paired samples t-test was used to assess overall GPA change over these time periods. Secondly, a one-way between subjects ANOVA was used to analyze GPA changes by program type.

The paired samples t-test revealed significant GPA changes at all three points in time (see Table 5.16). The findings show that the mean GPA earned abroad reflects a slight decrease in cumulative GPA of .073, $t(8348)=12.72$, $p<.001$. Upon returning from abroad, the cumulative GPA rebounds by 0.11, $t(5785)=-13.54$, $p<.001$. Overall, the mean cumulative GPA one semester after returning from abroad is slightly higher than the mean GPA before studying abroad by .005, $t(5745)=-3.16$, $p<.01$. Together these data suggest a "V" pattern in cumulative GPA change over time, with the grades earned abroad reflecting a slight decline.

Table 5.16 *Institutional Characteristics: GPA Change*

	Paired Differences				
	N	Mean	SD	*t*	*df*
Semester Prior – Semester Abroad	8348	.073	.526	12.72***	8348
Semester Abroad – Semester After	5785	-.105	.587	-13.54***	5785
Semester Prior – Semester After	5745	-.005	.123	-3.161**	5745

Note. ** = p<.01, *** p<.001

In order to conduct a one-way between subjects ANOVA, change scores were calculated between the three points in time: T_1=semester prior, T_2=semester abroad, and T_3=semester after. As such, three analyses were conducted (see Table 5.17). The results indicated that there were statistically significant main effects before study abroad and during study abroad (T_1- T_2), during study abroad and after (T_2- T_3), and before and after study abroad (T_1- T_3). Post-hoc testing using Tukey's Honestly Significant Difference (HSD) test indicated there were consistent differences across program types. However, practical significance as measured by partial eta squared was consistently small (η^2 = 0.003, 0.04, 0.06), suggesting while GPA significantly changes over time across program types, these changes are very small and may not have much applied meaning.

Table 5.17 *GPA Change Over Time: Program Type, 2005-2009*

	Mean Change Scores (Significant) Tukey's Honestly Significant Difference (HSD)		
	T_1- T_2 [η^2 = 0.04]	T_2- T_3 [η^2 = 0.06]	T_1- T_3 [η^2 = 0.003]
Semester	0.002_a	-0.004_a	0.0007_a
	(0.08)	(0.01)	(0.09)
Summer	-0.0003_a	-0.012_a	-0.015_b
	(0.22)	(0.25)	(0.08)
Embedded	0.22_b	-0.33_b	0.007_{ab}
	(0.87)	(0.99)	(0.18)
Academic Year	0.32_a	-0.04_a	0.012_{ab}
	(0.31)	(0.38)	(0.15)

Note. T_1- T_2 =ANOVA, ($F(3, 8349)$ = 107.51, p < 0.001); T_2- T_3 = ANOVA, ($F(3, 5785)$ = 128.08, p < 0.001); T_1- T_3 = ANOVA, ($F(3, 5745)$ = 5.37, p < 0.001)

Note. Means with differing subscripts within columns are significantly different at p<.01 based on post-hoc testing using Tukey's Honestly Significant Difference (HSD).

IV SUMMARY

This enrollment analysis both challenges and confirms long-held assumptions of the traditional education abroad student profile. The data show education abroad programming at Penn State, though large in total enrollment, remains limited to a small proportion of students. Of those who do study abroad, the majority are white, female, and middle class and are academically successful students majoring in a business-related field on the University Park campus. Many students are seniors, Pennsylvania-residents, and most have only minimal financial need. Based on these data, it appears education abroad at Penn State remains very much an experience for a select population of students who are able and eager to enhance their education through international experiences.

While education abroad continues to steadily expand at Penn State, the profile of students going abroad, the destinations they go to, and the fields they study in have not changed much since 2005/06. Proportional representation of students choosing full-year, semester, and summer programming has also remained stable. What changes there have been, such as in the proportion of non-traditional students participating in education abroad programs, appear to be due to the rise in number and therefore increased access to embedded programs. This is also true for students from non-University Park campuses who are studying abroad in greater numbers and are doing so on embedded programs.

The analysis reveals significant differences between the four program types, suggesting program type does in fact appeal differently to particular student populations. For example, male students are more heavily drawn to embedded programs. Minority students are also disproportionately drawn to embedded programs, particularly Hispanic and Black Americans. For first-generation and non-traditional students, embedded programs are the most popular program type. Particular fields of study are disproportionately represented in embedded programs such as agriculture, engineering, and physical sciences, all of which are known for regimented curricular requirements that make it difficult to study abroad (Blumenthal & Laughlin, 2009). Students with greater financial need are more likely to participate on embedded or academic-year programs.

The data challenge claims of a GPA benefit associated with education abroad. Rather, these data indicate students experience a slight decline in their cumulative GPAs based on grades earned while abroad. However, cumulative GPAs quickly rebound after returning to the home campus. The findings also reveal that statistically significant differences exist between baseline GPA by program type, but again these differences are very modest.

CHAPTER SIX: QUASI-EXPERIMENTAL STUDY

I INTRODUCTION

This chapter presents the findings related to the primary research questions that are the central focus of the quasi-experimental study. The study seeks to demonstrate the extent to which embedded education abroad courses enhance academic development and lead to measureable gains in global citizenship. Specifically, the chapter will present detailed results to address the following two research questions:

1.) To what extent does participation in embedded education abroad programming mediate changes in students' global citizenship, and thereby, social responsibility, global competence, and global civic engagement

2.) To what extent does participation in embedded education abroad programming enhance academic development, specifically with regard to academic self-concept and academic self-efficacy?

The analysis of the data focuses on the extent to which students in embedded and match courses vary significantly and how students in both groups change over the course of one semester, as indicated by pre-/post-test differences. The effect of course membership on each dimension and sub-dimension of global citizenship and academic development is analyzed utilizing both dependent and independent t-tests. Additionally, differences between embedded and match courses on global citizenship and academic development are examined for self-selection bias.

The chapter begins with a description of the sample using both descriptive and inferential statistics, as appropriate. The Pearson Chi-Square test statistic is employed to determine whether embedded and match courses differ significantly across various student demographics and course-related information (Glass & Hopkins, 1996). Previous internationally-oriented experience is similarly analyzed to determine how the two samples differ. This is followed by a general overview of the results, using composite scores for global citizenship and academic development. Each research question is then discussed in two parts. The first part analyzes the differences between the two independent samples and the second part examines pre-/post-test differences, presenting results at both the dimension and sub-dimension level. Gender, previous education abroad experience,

language proficiency, and program duration will be analyzed as moderating variables. The chapter concludes with a brief discussion of how the two samples differ in their course evaluations.

II DESCRIPTION OF THE STUDY SAMPLE

To review, 11 embedded and 11 match courses on five Penn State campuses were selected to participate in this study. All enrolled students of each course were asked to complete a paper-based questionnaire administered during class, once shortly after the start of the semester and once again near the end of the semester. In total, 126 pre-test and 101 post-test questionnaires were collected from students enrolled in embedded courses. Similarly, 222 pre-test and 196 post-test questionnaires were collected from students enrolled in the match courses. Of the total sample of 425 students who completed at least one version of the questionnaire, 51.7% were enrolled in courses taught on the University Park campus. The percentages of the sample representing the other campuses are: Abington (12.5%), Erie-Behrend (12.7%), Altoona (17.2%), and Dubois (5.9%).

As only a negligible number of students declined to participate in the study, the differences in number of pre-test and post-test questionnaires collected can primarily be attributed to three reasons: 1.) absenteeism on the days the questionnaires were administered in class, 2.) students adding/dropping the course mid-semester, and in three cases, 3.) questionnaire packets were not received by the researcher. Again, the pre-test and post-test questionnaires for each student were paired using the last four digits of the student's ID number. SPSS 17.0 automatically accounts for missing data when calculating paired-samples analyses.

Tables 6.1 presents the demographics of the embedded and match samples. The Pearson Chi-Square test statistic indicates whether embedded and match courses differ significantly across the indicated categories (Glass & Hopkins, 1996). The results show that the two samples differ by gender, $\chi^2(1, n=347)=9.67$, $p<.01$, with a greater proportion of female students participating on embedded programs. Similarly, the two samples also differ by semester standing, with the embedded enrollment skewed to upperclassmen, $\chi^2(4, n=347)=12.63$, $p<.05$. The samples did not differ by race/ethnicity, $\chi^2(5, n=344)=8.08$, $p>.05$ or by age, $t(344)=1.07$, $p>.05$.

An examination of internationally-oriented experiences also revealed an additional area difference between the two samples. The percentage of participants that have traveled internationally beforehand did not differ significantly, $\chi^2(16, n=341)=16.84$, $p>.05$. When asked about proficiency in languages other than English, 72.2% of the students in embedded courses and

67.4% of students in the match courses reported having at least some foreign language proficiency. However, the two samples did not differ significantly, $\chi^2(1, n=347)=.867$, $p>.05$. The two samples did differ significantly in one respect. A significantly greater proportion of students in the embedded courses had studied abroad before, $\chi^2(1, n=342)=15.29$, $p<.001$. Namely, 18% of the students in embedded courses had studied abroad before, compared to just 5% of students in match courses.

Table 6.1 *Sample Demographics*

Characteristics	Embedded (%)	Match (%)	χ^2
Sex			$p<.01$
Male	46 (36.5)	119 (53.8)	
Female	80 (63.5)	102 (46.2)	
Age			
M	22.68	22.17	
SD	4.34	4.23	
Range	19:47	19:52	
Semester Standing			$p<.05$
Freshman	11 (8.7)	24 (10.9)	
Sophomore	22 (17.5)	41 (18.6)	
Junior	42 (33.3)	94 (42.5)	
Senior	44 (34.9)	61 (27.6)	
Graduate Student	7 (5.6)	1 (0.5)	
Race/Ethnicity			
African American	8 (6.4)	6 (2.7)	
Native American	0 (0.0)	2 (0.9)	
Caucasian/White	100 (80.0)	192 (87.7)	
Asian/Pacific Islander	8 (6.4)	6 (2.7)	
Hispanic	3 (2.4)	7 (3.2)	
Other	6 (4.8)	6 (2.7)	
No. Times Traveled Internationally Before			
0	35 (28.0)	68 (31.5)	
1-5	73 (58.4)	121 (56.0)	
6-15	14 (11.2)	23 (10.6)	
16+	3 (2.4)	4 (1.9)	
Studied Abroad Before			$p<.001$
Yes	22 (18.0)	11 (5.0)	
No	100 (82.0)	209 (95.0)	
Language Proficiency (Other than English)			
Yes	91 (72.2)	149 (67.4)	
No	35 (27.8)	72 (32.6)	

Additionally, students were asked to indicate their reasons for enrolling in their respective courses, how they learned about the course, and their level of interest in its subject matter. These first two questions allowed students to indicate multiple answers. Table 6.2 presents the results of these questions. The table shows the majority of students, or roughly 64%, enrolled in match courses to fulfill a major requirement. Only 15% of students participating in embedded courses are doing so, reinforcing an assumption that these courses are generally offered for elective credit. This difference between the two samples is significant, $\chi^2(1, n=348)=77.26$, $p<.001$. Also noteworthy is how regularly students enroll in these courses out of personal interest. Not surprisingly, 65.9% of students enroll in embedded courses out of personal interest, compared to just 15.8% of students enrolled in match courses. This difference between the two samples is also significant, $\chi^2(1, n=348)=90.05$, $p<.001$. Very few students enrolled in either course out of career-related interests.

Faculty members, academic advisors, and friends were the most common ways students indicated learning about their respective courses. However, there were important significant differences between the two groups. The majority, or 52.4%, of students enrolled in embedded courses learned about the course through a faculty member, compared to just 12.2% of those enrolled in match courses, $\chi^2(1, n=348)=66.40$, $p<.001$. Students enrolled in match courses, however, were more likely (50.9%) to have learned about their course choice through their academic advisors, compared to just 20.6% of those students enrolled in embedded courses, $\chi^2(1, n=348)=30.69$, $p<.001$. Although the difference is not statistically significant, it appears that students' peers also have an influential role in directing students toward embedded courses. Overall, very few students learned about their courses through advertisements or promotional events.

An independent t-test was used to determine if the two samples differ in their initial level of interest in their respective courses. On a 10-point scale, the mean score of those students enrolled in embedded courses was 8.83, which was significantly higher than the mean score (M=6.65) of those students enrolled in match courses, $t(346)=8.96$, $p<.001$. The two groups also differed in their level of interest in the subject matter at the end of the semester, $t(292)=6.58$, $p<.001$. The mean score of those students enrolled in embedded courses was 8.78, which was not significantly different from their initial interest, $t(90)=.841$, $p>.05$. The mean score of those students enrolled in match courses did significantly change, $t(129)=2.68$, $p<.01$, improving by 0.44 to 7.09. These data suggest that students enrolled in embedded courses are highly interested in the subject matter, and this enthusiasm remains consistent over time. Students in the match courses are only moderately

interested in the subject matter at the start of the semester, but their interest level increases slightly by the end of the semester.

Table 6.2 *Course Information*

	Embedded (%)	Match (%)	χ^2
Reasons for taking this course			
Major requirement	19 (15.1)	142 (64.0)	$p<.001$
Major elective	39 (31.0)	43 (19.4)	$p<.05$
Career Interest	15 (11.9)	17 (7.7)	
Minor/related field	12 (9.5)	15 (6.8)	
Personal interest	83 (65.9)	35 (15.8)	$p<.001$
Other	2 (1.6)	12 (5.4)	
How learned about the course			
Faculty member	66 (52.4)	27 (12.2)	$p<.001$
Academic advisor	26 (20.6)	113 (50.9)	$p<.001$
Graduate assistant	0 (0.0)	1 (0.5)	
Friend	29 (23.0)	45 (20.3)	
Parent	1 (0.8)	3 (1.4)	
Advertisement	9 (7.1)	3 (1.4)	$p<.01$
Promotional event	7 (5.6)	0 (0)	$p<.001$
Other	11 (8.7)	56 (25.2)	$p<.001$
Level of pre-test interest in subject matter (1 to 10)	Embedded	Match	*t*
M.	8.83	6.65	$p<.001$
SD	1.50	2.48	
Level of post-test interest in subject matter (1 to 10)			
M.	8.78	7.09	$p<.001$
SD	1.43	2.37	
Destination country or countries (Embedded only)		n.	%
England		26	20.6
Australia		19	15.1
Italy		18	14.3
Spain		17	13.5
Greece		13	10.3
Morocco		10	7.9
New Zealand		8	6.3
Sweden		7	5.6
Canada		5	4.0
Germany		3	2.4
	M	SD	Range
Number of travel days (Embedded only)	11.97	6.81	3 : 32

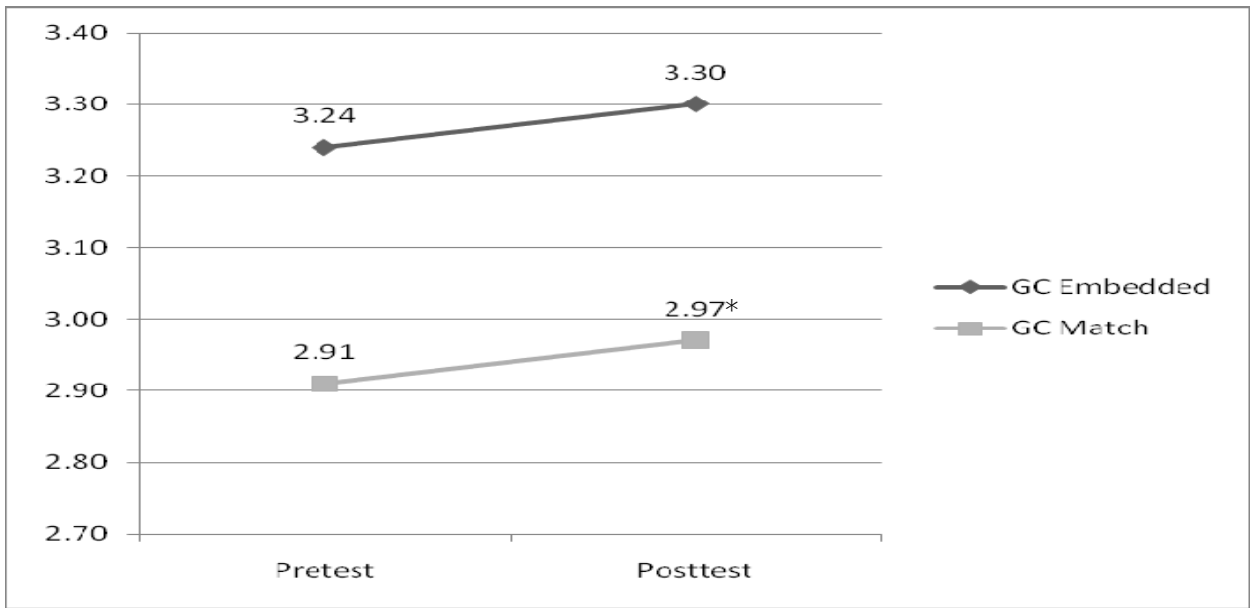
III RESEARCH QUESTIONS

Overview of Results

The analysis of the data shows that the two samples vary with regard to their initial levels of global citizenship and academic development and in the pattern with which they change over time. Students in the embedded courses show initially higher mean scores for global citizenship, which continue to rise over time. These same students also show higher mean scores for academic development at the outset of the semester, and this level remains consistently high over time. Students in the match courses show statistically significant changes in both global citizenship and academic development. These students show only modest global citizenship mean scores at the outset of the semester, yet they too experience gains over the course of the semester. However, these students show modest mean scores for academic development at the start of the semester, and surprisingly, the scores decrease over the course of the semester. A series of independent and dependent t-test analyses reveal somewhat unexpected and generally surprising results.

Global Citizenship. An independent t-test analysis revealed that the students in the embedded courses had a pre-test global citizenship mean score of 3.23, which is significantly higher than students enrolled in match courses (M=2.92), $t(333)=6.13$, $p<.001$. The same was true for post-test global citizenship scores. Students in embedded courses had a mean score of 3.26, whereas the match courses had a mean score of 3.00. Again, post-test results were significantly different, $t(294)=4.50$, $p<.001$. Figure 6.1 illustrates the overall results of a dependent t-test analysis of changes over time with regard to global citizenship. The results show that global citizenship mean scores for students in the embedded courses increased, but not significantly, $t(87)=-1.72$, $p>.05$. However, global citizenship mean scores for students in the match courses also increase, and do so significantly, $t(125)=-2.18$, $p<.05$. Overall, the results indicate the presence of consistently higher pre-/post-test results for the embedded students, suggesting the presence of self-selection bias in the sample. Both groups experience positive changes toward global citizenship over time, but the rate of change is parallel, with scores equally rising 0.06 points. This may suggest the presence of a test effect in the data, but this conclusion is not consistent with the results for academic development.

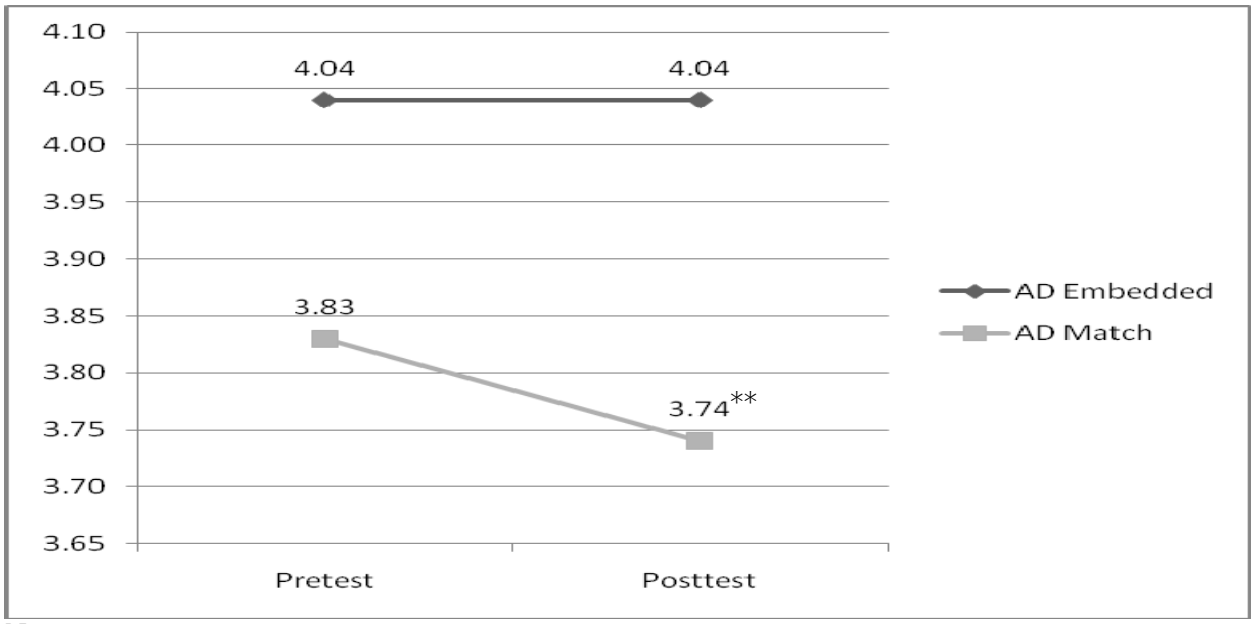
Figure 6.1 *Overall Results: Global Citizenship*



Note. * = p<.05

Academic Development. An independent t-test analysis revealed that the students in the embedded courses had a pre-test academic development mean score of 4.08, which is significantly higher than students enrolled in match courses (M=3.80), $t(344)=5.09$, $p<.001$. The same was true for post-test academic development scores. Students in embedded courses had a mean score of 4.06, whereas the match courses had a mean score of 3.73. Again, post-test results were significantly different, $t(294)=5.35$, $p<.001$. Figure 6.2 illustrates the overall results for a dependent t-test analysis of changes over time with regard to academic development. The results show that academic development mean scores for students in the embedded courses did not change significantly, $t(89)=.05$, $p>.05$. The academic development mean scores for students in the match courses significantly decreased, $t(128)=2.80$, $p<.01$. Overall, mean scores across both samples are much higher than global citizenship scores, which may indicate a social desirability bias inherent in such self-assessments (Messick, 1979; Nunnally, 1978; Reynolds, 1988). The results indicate the presence of consistently higher pre-/post-test results for the embedded students, suggesting once again the presence of self-selection bias in the sample. Neither group shows positive change toward academic development over the course of the semester. Whereas the students in match courses experience a significant decrease in academic development, the consistent higher level of academic development at both pre-test and post-test measurements for the embedded sample may suggest a potential ceiling effect for these students (Hadis, 2005b). The presence of a test effect, as suggested by global citizenship results, appears less influential in measuring academic development.

Figure 6.2 *Overall Results: Academic Development*



Note. ** = p<.01

Question One: ***To what extent does participation in embedded education abroad programming mediate changes in students' global citizenship and thereby, social responsibility, global competence, and global civic engagement?***

Self-Selection Analysis

The analysis of the data at the level of each dimension of global citizenship reveals statistically significant differences between embedded and match courses. As illustrated in Figures 6.3 and 6.4, students in the embedded courses have consistently higher mean scores on all three dimensions of

Figure 6.3 *Dimension Level: Global Citizenship Pre-test Results (Test of Independence)*

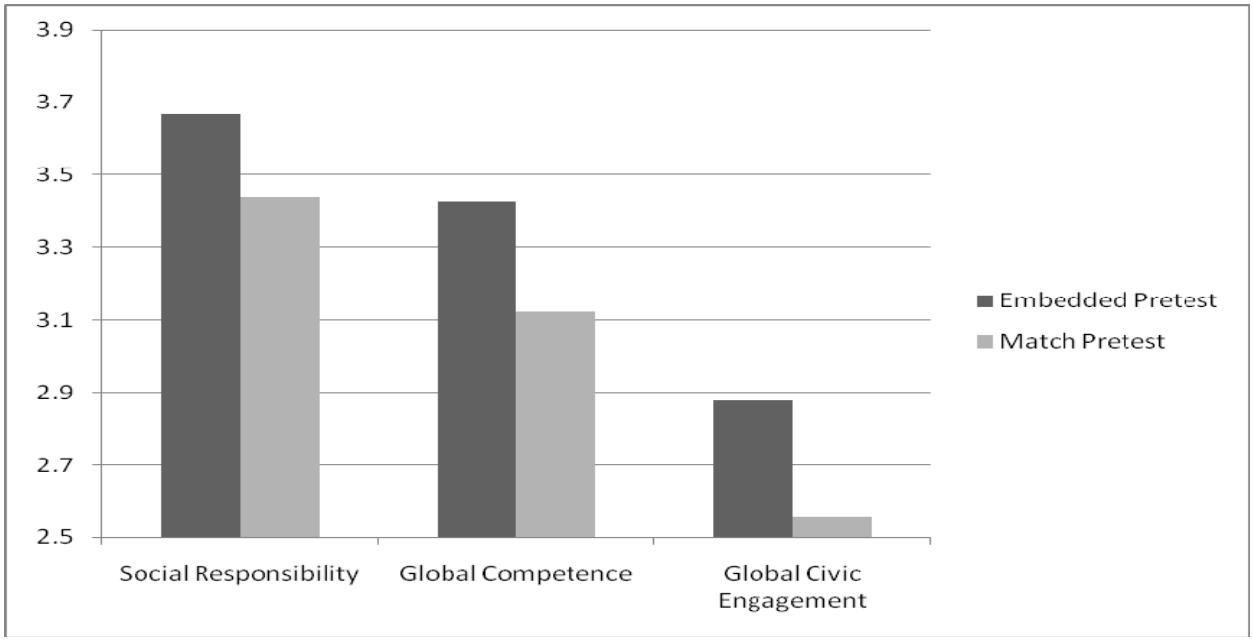
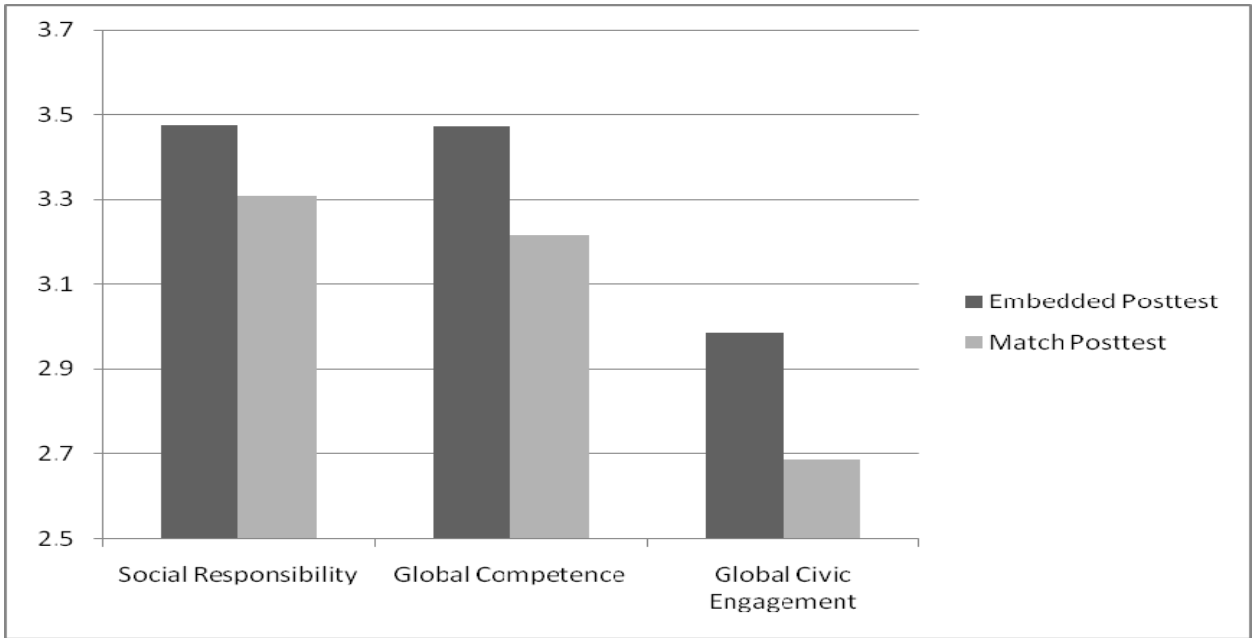


Figure 6.4 *Dimension Level: Global Citizenship Post-test Results (Test of Independence)*



global citizenship (social responsibility, global competence, global civic engagement). These findings are mirrored in the post-test results, with embedded courses again showing significantly higher mean scores across all three dimensions. Table 6.3 presents the statistical significance of this pre-/post-test t-test analysis of independence. Overall, the findings point to the presence of self-selection in the sample, suggesting that students in embedded courses are coming into these courses with already significantly higher levels of global citizenship. Perhaps it is because of this that these students are initially drawn to these courses.

Table 6.3 *Dimension Level: Global Citizenship Pre-/Post-test Results (Test of Independence)*

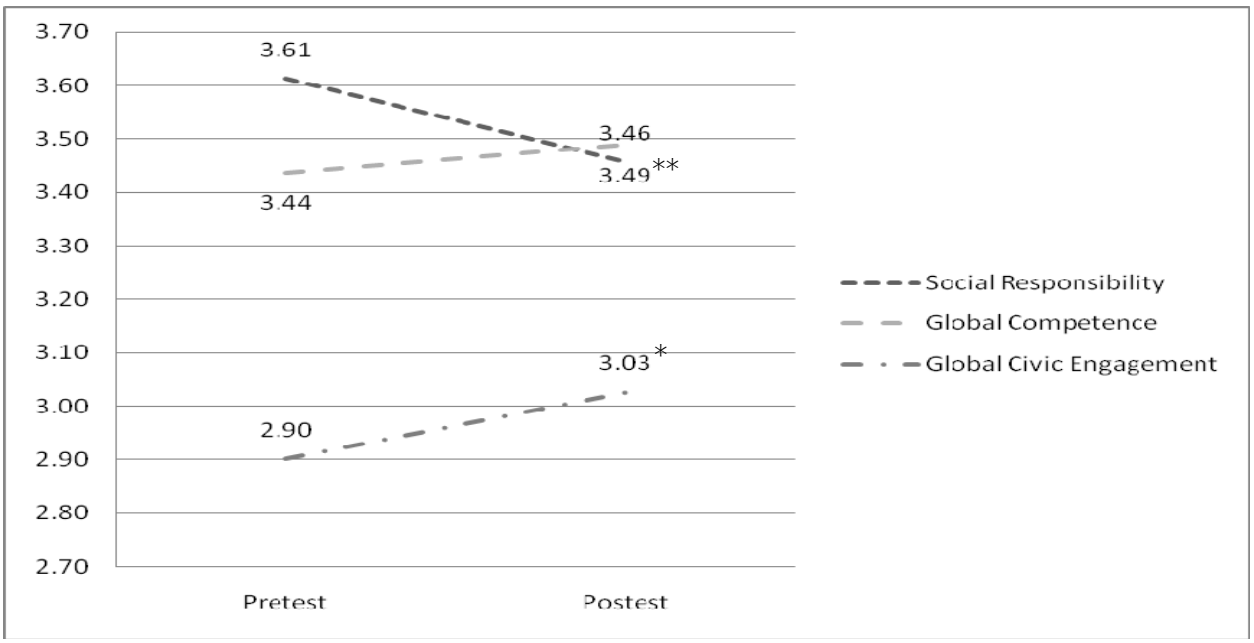
	Pre-test				Post-test			
	Embedded	Match	*df*	*t*	Embedded	Match	*df*	*t*
Social Responsibility	3.67	3.44	337	3.35**	3.48	3.31	295	2.02*
Global Competence	3.43	3.12	340	5.46***	3.47	3.22	294	3.84***
Global Civic Engagement	2.88	2.56	339	4.30***	2.99	2.69	295	3.46**

* = $p<.05$, ** = $p<.01$, *** = $p<.001$

Pre-/Post-test Analysis

Dimension Level Analysis. The analysis of the data at the construct level showed modest gains over time for students in embedded programs with regard to global citizenship, but these gains were not statistically significant. Analyzed at the dimension level, however, statistically significant changes emerge in two dimensions (see Figure 6.5). Means scores for social responsibility unexpectedly declined over time, from 3.61 to 3.46, $t(88)=3.34$, $p<.01$. Yet, these students do show statistically significant increases in global civic engagement, with mean scores rising from 2.90 to 3.03, $t(89)=-2.02$, $p<.05$. Interestingly, global civic engagement has the lowest overall scores among the three dimensions. Perhaps with a larger sample size, global competence would produce statistically significant changes.

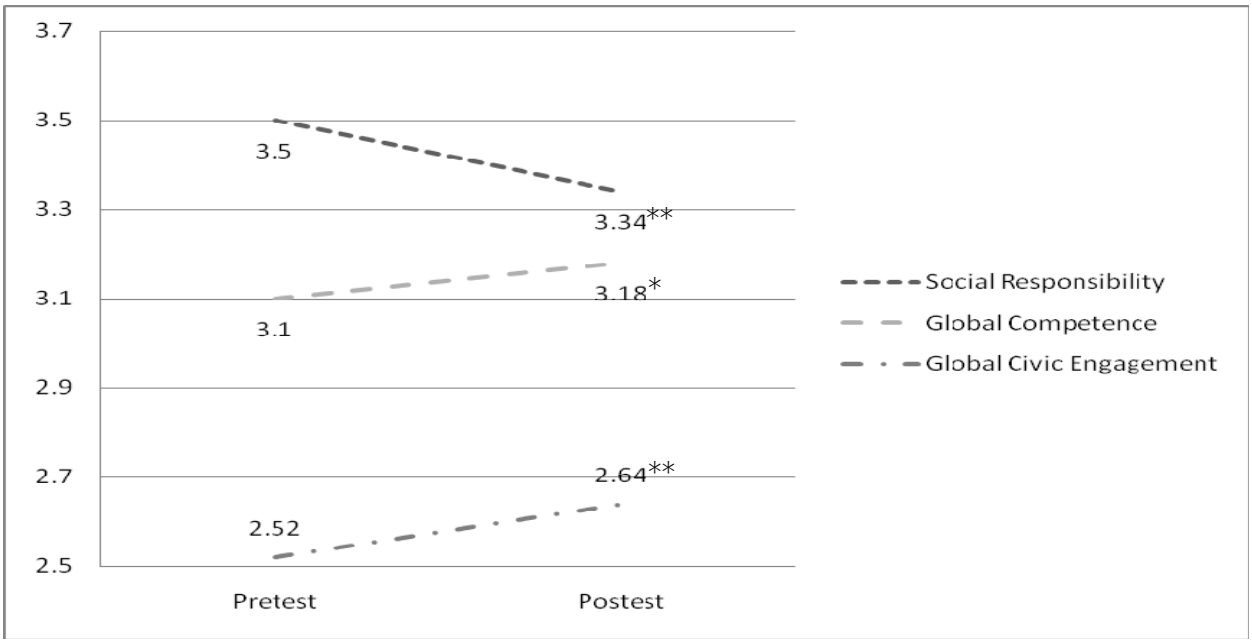
Figure 6.5 *Dimension Level: Global Citizenship Pre/Post-test Results (Embedded)*



Note. * = $p<.05$, ** = $p<.01$

Students in the match courses showed statistically significant changes in all three dimensions (see Figure 6.6). Mean scores for social responsibility for these students also declined over time, from 3.50 to 3.34, $t(125)=3.12$, $p<.01$. However, scores for global competence and global civic engagement increased significantly, with mean scores for global competence rising by 0.08, $t(127)=-2.18$, $p<.05$ and scores for global civic engagement rising by 0.12, $t(125)=-2.64$, $p<.01$. These increases may point to testing and related threats to internal validity inherent to the study design.

Figure 6.6 *Dimension Level: Global Citizenship Pre/Post-test Results (Match)*



Note. * = $p<.05$, ** = $p<.01$

Sub-Dimension Level Analysis. Refining the analysis to the sub-dimension level reveals a third-level of findings specific to each of the three sub-dimensions of global competence (self-awareness, intercultural competence, global knowledge), and the three sub-dimensions of global civic engagement (involvement in civic organizations, political voice, glocal civic activism). Based on the factor analysis results from the scale development process (see chapter 4), questions relating to the theoretical sub-dimensions for social responsibility were either omitted due to poor overall reliability or were merged to form one dimension of social responsibility.

For the embedded courses, the results show encouraging positive increases on all six sub-dimensions, although none were statistically significant. In particular, all three sub-dimensions of global civic engagement show increased mean scores over time. Though these results are not individually significant, they combine to produce statistical significance at the dimension level. Again, this suggests that with a larger sample size, these findings at the sub-dimension level would likely become statistically significant. Pre-/post-test results for the match courses, which have a larger sample size, are not as consistent. As shown in Table 6.4, these students have significant gains in self-awareness and intercultural competence but a decline in global knowledge. All three sub-dimensions of global civic engagement show positive increases, but only involvement in civic organizations and political voice are statistically significant.

Table 6.4 *Sub-dimension Level: Global Citizenship Pre-/Post-test Results*

	Embedded				Match			
	Pre-test	Post-test	*df*	*t*	Pre-test	Post-test	*df*	*t*
Self-Awareness	3.19	3.21	90	-0.29	2.75	2.87	127	-2.02*
Intercultural Competence	3.71	3.83	90	-1.75	3.28	3.44	127	-3.10**
Global Knowledge	3.41	3.43	90	-0.32	3.26	3.23	127	0.57
Involvement in Civic Orgs.	2.94	3.07	89	-1.81	2.52	2.66	125	-2.87**
Political Voice	2.53	2.68	89	-1.81	2.12	2.30	125	-3.17**
Glocal Civic Activism	3.24	3.33	89	-1.30	2.92	2.96	125	-.55

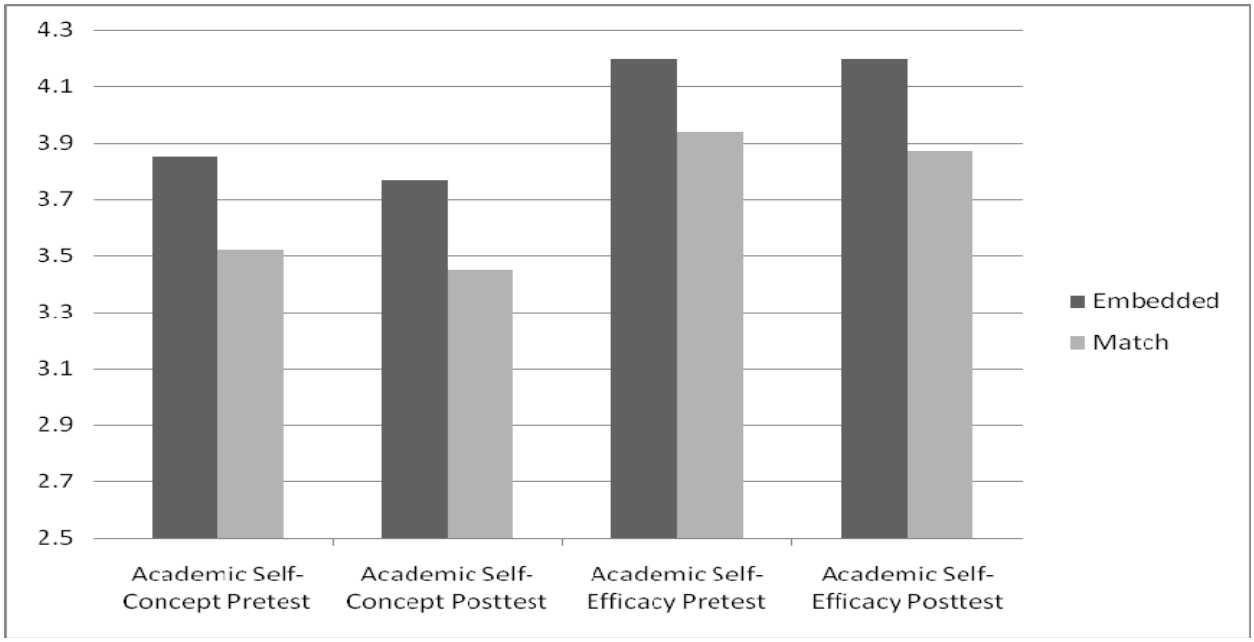
* = $p<.05$, ** = $p<.01$

Question Two: ***To what extent does participation in embedded education abroad programming enhance academic development, specifically with regard to academic self-concept and academic self-efficacy?***

Self-Selection Analysis

The analysis of the data at the level of each of the two dimensions of academic development (academic self-concept, academic self-efficacy) reveals statistically significant differences between embedded and match courses. As illustrated in Figure 6.7, students in the embedded courses have consistently higher mean scores on both dimensions of academic development. These findings are mirrored in the post-test results, with embedded courses again showing significantly higher mean scores across both dimensions. Table 6.5 presents the statistical significance of this pre-/post-test t-test analysis of independence.

Figure 6.7 *Dimension Level: Academic Development Pre/Post-test Results*



As with global citizenship, self-selection appears to be an influential factor within academic development. Not only do students participating in embedded courses appear to be heavily drawn to these internationally-oriented experiences, likely due in part to their pre-existing globally-oriented worldview, these students also appear to have a higher evaluation of their own academic abilities and of their commitment and involvement to their course work. Whereas students in the match courses choose their courses based on academic requirements and at the recommendation of their advisors, students in embedded courses do so for personal reasons and at the suggestion of their professors.

Table 6.5 *Dimension Level: Academic Development Pre-/Post-test Results (Test of Independence)*

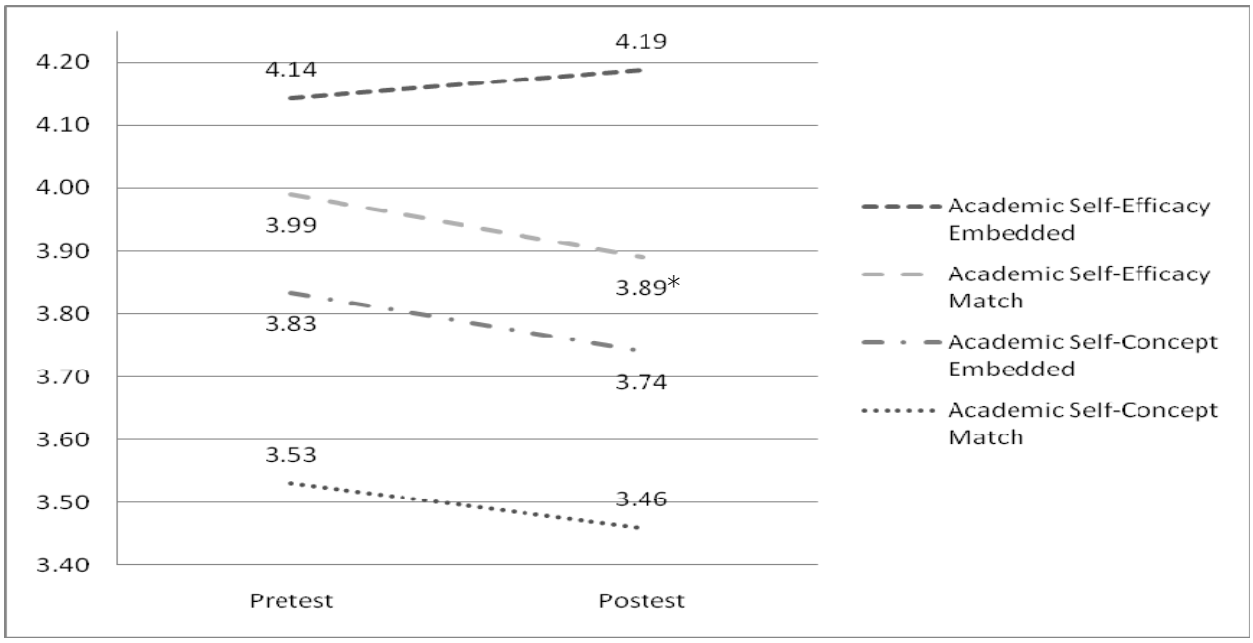
	Pre-test				Post-test			
	Embedded	Match	*df*	*t*	Embedded	Match	*df*	*t*
Academic Self-Concept	3.85	3.52	345	4.90***	3.77	3.45	296	4.41***
Academic Self-Efficacy	4.20	3.94	344	4.12***	4.20	3.87	294	4.80***

* = $p<.05$, ** = $p<.01$, *** = $p<.001$

Pre-/Post-test Analysis

Dimension Level Analysis. The analysis of the data at the construct level showed that neither sample of students had academic development gains over the course of the semester, and in fact, the overall mean scores for students in the match courses actually decreased. Analyzed at the dimension level (see Figure 6.8), the findings show that students in embedded courses experience a slight decline in academic self-concept from 3.83 to 3.74, but this is not statistically significant, $t(90)=1.83$, $p>.05$. However, these students do show slight gains in academic self-efficacy, rising

Figure 6.8 *Dimension Level: Academic Development Pre/Post-test Results*



Note. * = $p<.05$

from a mean score of 4.14 to 4.19, but again this is not statistically significant. Students in the match courses also show a slight, but not statistically significant, decline in academic self-concept from 3.53 to 3.46, $t(129)=1.68$, $p>.05$. Unlike the students in embedded courses, these students do not experience gains in academic self-efficacy, but show a statistically significant decrease, $t(128)=-2.51$, $p<.05$. Overall, the results show that students have much higher academic self-efficacy scores compared to academic self-concept. This suggests that the students believe they personally have the capabilities to manage their learning environment and commitment to course work, which is oddly stronger than their perceptions of their own academic abilities. Alternatively, these findings may again point to social desirability bias inherent in self-assessments of this nature (Nunnally, 1978; Messick, 1979; Reynolds, 1988).

Sub-Dimension Level Analysis. Based on the factor analysis of the academic development scale (see chapter 4), questions relating to the initial sub-dimensions for academic self-concept (expanding academic interests, learning from others) were either omitted due to poor reliability or were merged to form an integral dimension of academic self-concept. Two of the three sub-dimensions for academic self-efficacy also merged to form a hybrid sub-dimension of choice and effort. The two sub-dimensions for academic self-efficacy are thus, choice and effort and persistence.

The results show that students in embedded courses experience gains in both sub-dimensions of academic self-efficacy, but these changes are not significant (see Table 6.6). Perhaps with a larger sample size, these results would yield statistically significant gains. While students in the embedded courses make modest gains, students in the match courses show decreases across both sub-dimensions. In particular, these students show a statistically significant decline in choice and effort, from 4.08 to 3.95, $t(128)=3.06$ $p<.01$. These results suggest that the embedded students have and maintain a stronger sense of self-efficacy, which may be an influential factor in their overall academic success and early decisions to study abroad.

Table 6.6 *Sub-dimension Level: Academic Development Pre-/Post-test Results*

	Embedded				Match			
	Pre-test	Post-test	*df*	*t*	Pre-test	Post-test	*df*	*t*
Choice & Effort	4.22	4.28	89	-1.22	4.08	3.95	128	3.06**
Persistence	4.07	4.10	89	-0.41	3.89	3.82	128	1.43

** = $p<.01$

IV MODERATING EFFECTS

The analysis has focused primarily on the extent to which students in embedded and match courses are different and how students in both groups change over the course of one semester. Since the data suggest the presence of self-selection within the embedded sample, it would be useful to examine how characteristics internal to members of this sample moderate individual gains in global citizenship and enhance academic development. As such, the analysis examines the moderating effects of gender (male vs. female), previous education abroad experience (previously studied abroad vs. first time), and language proficiency (no foreign language proficiency vs. some

proficiency in a foreign language). Additionally, program duration is examined as a potentially influential program-related external variable of students' learning outcomes (Medina-Lopez-Portillo, 2004). Because of the generally small sample size, caution is needed when interpreting the data and drawing causal inferences.

Gender. As the enrollment analysis has shown (see chapter 5), females generally dominate education abroad enrollments. Within this study, over 63% of those participating in the embedded courses are female. Thus, to understand if gender moderates learning outcomes, a one-way between subjects ANOVA was used. Change scores were calculated between pre-test and post-test scores, resulting in change scores for global citizenship and academic development. The results show that there are no significant main effects by gender for either global citizenship, $F(1, 86)=.01$, $p>.05$, or for academic development, $F(1, 88)=.08$, $p>.05$.

Additionally, gender was analyzed with both dependent and independent t-tests. An independent t-test shows that although women are disproportionately represented within the sample, males consistently have higher mean scores on both pre-test and post-test measurements of global citizenship and academic development, although these differences are not significant. A dependent t-test shows that the two genders have comparable learning outcomes, with both genders showing modest gains in global competence and global civic engagement and a decrease in social responsibility. Similarly, both show slight decreases in academic self-concept (see Table 6.7).

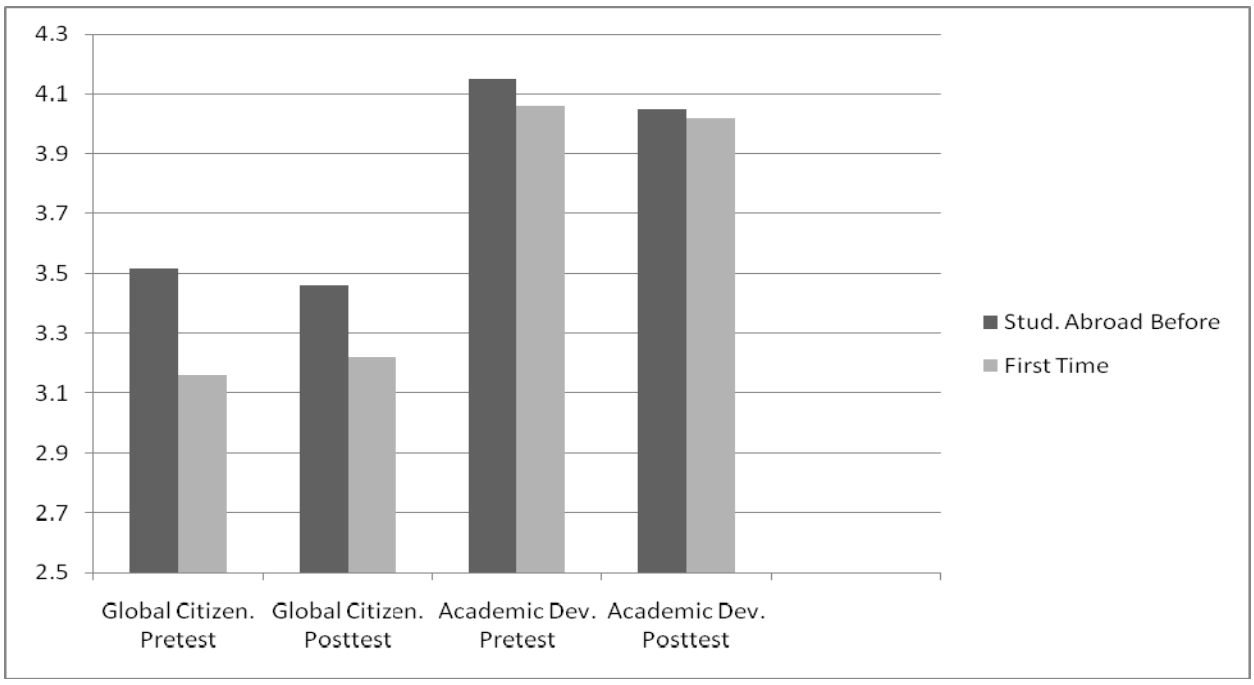
Table 6.7 *Moderating Variable (Gender): Pre-/Post-test Results*

	Males				Females			
	Pre-test	Post-test	*df*	*t*	Pre-test	Post-test	*df*	*t*
Social Responsibility	3.59	3.50	36	1.30	3.63	3.43	51	3.21**
Global Competence	3.49	3.57	36	-1.36	3.40	3.43	53	-0.47
Global Civic Engagement	2.90	2.99	35	-1.20	2.90	3.05	53	-1.62
Academic Self-Concept	3.95	3.86	36	1.05	3.75	3.66	53	1.51
Academic Self-Efficacy	4.11	4.13	35	-0.27	4.17	4.22	53	-0.85

** = $p<.01$

Previous Education Abroad Experience. Of those students participating in embedded courses, approximately 18% of the sample have studied abroad before, compared to just 5% of those students enrolled in match courses, $\chi^2(1, n=342)=15.29$, $p<.001$. An independent samples t-test shows that within this sample, those with study abroad experience have significantly higher global citizenship mean scores, both at the outset of the course, $t(117)=3.68$, $p<.001$ and at the semester end, $t(86)=2.13$, $p<.05$. Although the two sub-samples do not significantly vary by academic development, those with previous study abroad experience do show slightly higher mean scores (see Figure 6.9).

Figure 6.9 *Moderating Variable (Previous Study Abroad Experience): Pre-/Post-test Results*



As the sample size is small, examining overall student learning outcomes requires caution. However, the results suggest that previous study abroad experience does little to moderate increased learning outcomes. Both groups experience similar gains and losses. However, within the dimension of global civic engagement, those who have not studied abroad before show a statistically significant increase in global civic engagement, increasing from 2.78 to 2.94, $t(67)=-2.11$, $p<.05$. These results suggest that those who studied abroad before come to embedded courses predisposed toward recognizing local, state, national, and global community issues and are already engaging in actions such as volunteerism, political activism, and community participation. For those first-time study abroad participants, these results suggest an overall increased awareness in this regard. Table 6.8 presents the statistical significance of this pre-/post-test t-test analysis.

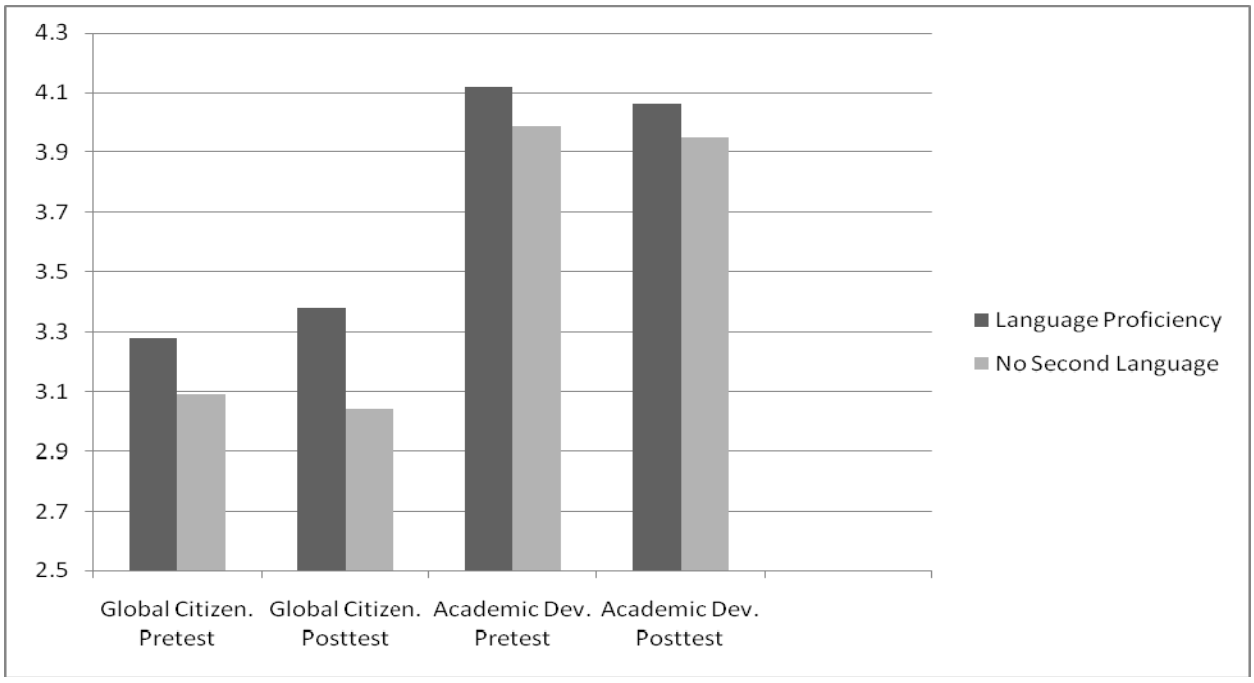
Table 6.8 *Moderating Variable (Previous Study Abroad Experience): Pre-/Post-test Results*

	Studied Abroad Before				First Time			
	Pre-test	Post-test	*df*	*t*	Pre-test	Post-test	*df*	*t*
Social Responsibility	3.63	3.43	19	1.90	3.59	3.46	65	2.41*
Global Competence	3.72	3.71	19	0.12	3.35	3.41	67	-1.14
Global Civic Engagement	3.31	3.30	19	0.06	2.78	2.94	67	-2.11*
Academic Self-Concept	3.99	3.72	19	2.17*	3.79	3.73	67	1.15
Academic Self-Efficacy	4.20	4.21	19	-0.15	4.12	4.18	66	-0.90

* = $p<.05$

Language Proficiency. Approximately 72% of students participating in embedded courses report having some foreign language fluency. Of those that have some foreign language proficiency, 11.4% (n=27) had also studied abroad before, which is slightly higher than would have otherwise been expected. Spanish was the most popular language, with over 45% (n=61) of the sample

Figure 6.10 *Moderating Variable (Language Proficiency): Pre-/Post-test Results*



reporting some proficiency. An independent samples t-test shows that within the embedded course sample (see Figure 6.10), those with some second-language proficiency have significantly higher global citizenship mean scores, both at the outset of the course, $t(121)=-2.15$, $p<.05$ and at the semester end, $t(89)=-3.19$, $p<.01$. Although the two sub-samples do not vary significantly by academic development, those with foreign language proficiency do indicate higher mean scores.

Although the sample size is small, the results suggest that foreign language proficiency does little to moderate increased learning outcomes. Again, the notable exception is the dimension of global civic engagement. Those with some foreign language proficiency show a statistically significant increase in global civic engagement, increasing from 2.96 to 3.14, $t(63)=-2.38$, $p<.05$. Although this analysis has not determined if the language studied in that of the host country visited as part of the international travel component of the embedded course, the results suggest that language has some moderating effect to potentially increase one's willingness to engage in actions such as volunteerism, political activism, and community participation. In other words, language proficiency may be a catalyst that empowers students to more actively engage in the community. Table 6.9 presents the statistical significance of this pre-/post-test t-test analysis.

Table 6.9 *Moderating Variable (Language Proficiency): Pre-/Post-test Results*

	Foreign Language Proficiency				No Foreign Language Proficiency			
	Pre-test	Post-test	*df*	*t*	Pre-test	Post-test	*df*	*t*
Social Responsibility	3.65	3.51	63	2.49*	3.51	3.33	24	2.48*
Global Competence	3.52	3.59	64	-1.43	3.23	3.23	25	0.00
Global Civic Engagement	2.96	3.14	63	-2.38*	2.76	2.75	25	0.10
Academic Self-Concept	3.90	3.80	64	1.57	3.66	3.59	25	0.93
Academic Self-Efficacy	4.19	4.21	63	-0.35	4.03	4.14	25	-0.91

* = $p<.05$

Program Duration. Although the international travel component of these embedded courses is brief, ranging from 3 to 32 days, a linear regression model was used to determine if in any way the

duration of the program had moderating effects on student learning outcomes. Change scores were calculated between pre-test and post-test scores, resulting in change scores for global citizenship and academic development. Program duration did not predict global citizenship scores, $\beta = -.01$, $t(135)=.14$, $p>.05$. Program duration did not explain a significant proportion of the variance in global citizenship, $R^2=.01$, $F(1, 86)=.74$, $p>.05$. In much the same way, program duration did not predict academic development scores, $\beta = -.05$, $t(135)=-.45$, $p>.05$. Program duration did not explain a significant proportion of the variance in academic development, $R^2=.00$, $F(1, 88)=.26$, $p>.05$. These results are not surprising and suggest that for these students, time spent in country is less important than the experience of going abroad as a whole. Also, the international travel component of these courses is embedded within a semester-length course, and as such, the curriculum typically builds on the experience, both prior to and after returning from abroad. Furthermore, the in-country experience for these students is usually highly structured to maximize learning opportunities (Spencer & Tuma, 2002). As such, program duration should in theory have only a minor effect, if any, on overall student learning.

V COURSE EVALUATION

As part of the post-test questionnaire, students were asked to evaluate their courses on a 5-point Likert-type scale, with 5 being the most favorable evaluation (Marsh, 1982). Table 6.10 presents the results by embedded and match courses. For all eight questions, the students in the embedded courses significantly rated their courses consistently higher by one-half percentage point. Students in the match courses also had greater variability in their evaluations, as indicated by the standard deviations.

These findings may be indicative of the academic performance outcomes that have been shown to be associated with intense student-faculty interaction (Astin, 1993; Gerdes & Mallinckrodt, 1994; Kuh & Hu, 2001; Szelenyi, 2002; Woodside, Wong, & Wiest, 1999). However, the scores may also be a reflection of the fact that these students registered for their courses out of personal interest and with a consistently higher level of interest in the subject matter. These students were mostly likely recruited by the faculty members teaching their courses, suggesting that these students had greater familiarity with the course professor and expectations of the course. Due to the fact that additional course-related fees are necessary in order to enroll in embedded courses, these students are conceivably much more committed to the course and prepared to meet expectations.

Not surprisingly, this commitment translates into students expecting significantly higher final grades than their peers who enroll in match courses. In fact, 82.7% of students enrolled in embedded courses expected to receive an A for their work, compared to only 43.3% of students in match courses. An equal number of these students (43.8%) expected to earn a B grade compared to only 13.3% of those enrolled in embedded courses. The two samples were significantly different in this respect, $\chi^2(4, n=292)=41.21$, $p<.001$.

Table 6.10 *Course Evaluation*

	Evaluation Items (1=Embedded/2=Match)		M	SD	*t*
1.	I have found the course to be intellectually challenging and stimulating.	1	4.13	.82	$p<.001$
		2	3.69	.92	
2.	I have learned something which you consider valuable.	1	4.51	.66	$p<.001$
		2	3.91	.90	
3.	My interest in the subject has increased as a consequence of this course.	1	4.35	.78	$p<.001$
		2	3.65	1.02	
4.	I have learned and understood the subject matter in this course.	1	4.33	.63	$p<.001$
		2	3.82	.83	
5.	The course has adequately addressed current developments in the field.	1	4.14	.77	$p<.001$
		2	3.82	.83	
6.	Readings and assignments have contributed to my developing an appreciation for the subject.	1	4.10	.88	$p<.001$
		2	3.62	.98	
7.	How does the course instructor(s) compare with other instructors you have had at Penn State?	1	4.49	.76	$p<.001$
		2	4.01	.89	
8.	How does this course compare with other courses you have had at Penn State?	1	4.43	.79	$p<.001$
		2	3.76	1.01	

	Treatment (%)	Match (%)	χ^2
Expected Grade			$p<.001$
A	81 (82.7)	84 (43.3)	
B	13 (13.3)	85 (43.8)	
C	3 (3.1)	20 (10.3)	
D	1 (1.0)	4 (2.1)	
F	0 (0.0)	1 (0.5)	

VI SUMMARY

The analysis of the data focused on how much students in embedded and match courses differ and how students in both samples changed over the course of one semester, as indicated by pre-/post-test differences. Findings with regard to each of the two research questions were analyzed using a series of independent and dependent t-tests and were presented at the construct, dimension, and sub-dimension levels. Additionally, gender, previous education abroad experience, language proficiency, and program duration were examined as moderating variables within the embedded sample. A brief analysis of how the two samples differed in their overall course evaluations was presented.

The two samples differed along key demographic and personal characteristics. Students in the embedded courses were more likely to be female and upperclassmen, but the two samples did not differ significantly by either race/ethnicity or age. Neither did the samples differ significantly by previous international travel experience or foreign language proficiency. However, students in the embedded courses were more likely to have previously studied abroad.

The two groups enrolled in their respective courses from very different perspectives, thus suggesting self-selection bias inherent to the study. Students in the embedded courses were more likely to enroll in these courses to earn elective credit, and most did so at the recommendation of a faculty member. These students reported being highly interested in the subject matter of the courses, and their enthusiasm persisted over the course of the semester. Not surprisingly, their commitment translated into the majority of students expecting to earn an A grade. These students uniformly evaluated their courses highly. Students in the match courses were more likely to enroll in their respective courses to fulfill a major requirement, and the majority did so at the behest of their academic advisors. Very few of these students reported being personally interested in the subject matter, and this interest only moderately increased over the course of the semester. These students evaluated their courses significantly lower than students in the embedded courses, and most expected to earn a B grade for the course.

The analysis of the data shows that the two samples vary with regard to their pre-/post-test levels of global citizenship and academic development and in the pattern with which they changed over time. Students in the embedded courses have significantly higher pre-test and post-test mean scores for global citizenship overall and at each of the three dimensions. Both groups showed positive increases in global citizenship over time, but only the students in the match courses showed

significant changes. At the dimension level, the embedded sample experienced a significant decline in social responsibility, yet a significant increase in global civic engagement. Students in the match courses also showed a statistically significant decline in social responsibility but they had significant increases in global competence and global civic engagement. The embedded sample showed positive increases at each sub-dimension level, but none were statistically significant. Students in the matched courses also showed gains at the sub-dimension level with the exception of global knowledge, which slightly declined.

Students in the embedded sample showed higher mean scores for academic development at both the outset and end of the semester. These students had consistently higher mean scores on both dimensions of academic development. Neither group showed positive change toward academic development over the course of the semester. The academic development mean scores for students in the embedded courses did not change significantly, whereas the mean scores for students in the match courses actually decreased significantly. At the dimension level however, the findings show that students in embedded courses experienced a slight gain in academic self-efficacy, but a decline in academic self-concept. Students in the match courses showed declines in both academic self-concept and academic self-efficacy. At the sub-dimension level of academic self-efficacy, the results showed that students in embedded courses experienced gains in both sub-dimensions. Students in the match courses however, show decreases across both sub-dimensions. These results suggest that the embedded students had and maintained a stronger sense of self-efficacy, which may be an influential factor in their overall academic success and early decisions to study abroad.

The analysis further examined how characteristics internal to students in the embedded sample moderated individual gains in global citizenship and academic development. In particular, gender, previous education abroad experience, and language proficiency were analyzed. Program duration was also examined as a program-related moderating variable. The results showed there are no significant differences in learning outcomes by gender for either global citizenship or academic development. Although those with previous study abroad experience had significantly higher global citizenship mean scores, both at the outset of the course and at the semester end, the results suggest that previous study abroad experience does little to moderate increased learning outcomes. Similarly, those with some second language proficiency had significantly higher global citizenship mean scores at the outset of the course and at the semester end, but the results suggest that foreign language proficiency does little to moderate increased learning outcomes. Program duration did not influence global citizenship or academic development learning outcomes for embedded programs.

CHAPTER SEVEN: CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS

I INTRODUCTION

The integration of education abroad experiences into the undergraduate curriculum has been widely assumed to be an effective pathway on which to guide students toward becoming engaged global citizens and as an important way to boost student academic development (Brown, 2006; Hunter, White & Godbey, 2006; Praetzel, Curcio, & Dilorenzo, 1996). Not surprisingly, U.S. institutions are now more than ever turning to embedded education abroad programming as an important strategy to realize their goals to graduate global citizens. The growth of embedded programming is also claimed to be attracting greater numbers of students from groups that have otherwise been less likely to study abroad for a semester, full-year, or summer, whether for financial, academic, or personal reasons (Green, Luu, & Burris, 2008). Although many such assumptions are widely acknowledged and accepted, they have been more often based on anecdote than on documented empirical evidence. There has been insufficient outcomes assessment data documenting student learning outcomes associated with embedded programs and only limited evidence that illustrates these programs appeal differently to traditionally underrepresented populations. Thus, the central purpose of this study has been to challenge these assumptions, or to demonstrate the extent to which embedded education abroad experiences enhance academic development and promote global citizenship. The study has also sought to demonstrate the extent to which traditionally underrepresented populations participate in education abroad programming and how participation has varied over time and by program type. Student GPA data were also analyzed to determine how experience abroad impacts academic performance and to challenge claims of a "GPA benefit" associated with studying abroad (Clabby, 2008; Merva, 2003).

This final chapter presents an interpretation and discussion of the findings of this study and their theoretical and practical implications. As the purpose of the study has been to provide much needed empirical evidence of the learning outcomes associated with embedded education abroad programming, the results are discussed with the goal of advancing the understanding of global citizenship and academic development as intentional outcomes of higher education. Results should also further challenge international educators and administrators alike to more purposefully and strategically promote education abroad in all its forms as a viable and essential component of the undergraduate experience. Recommendations for future research are proposed and briefly discussed.

II SUMMARY OF FINDINGS

The goals of this multi-faceted study were to develop reliable and valid measures of global citizenship and academic development, to facilitate a multi-campus, quasi-experimental study of student learning outcomes associated with embedded education abroad programming, and to conduct a comprehensive enrollment analysis of 8,415 undergraduate education abroad participants. Like the study itself, the findings are complex and extensive.

Global Citizenship & Academic Development Scales

1. *An eight-step scale development process yielded reliable and valid scales of global citizenship and academic development.* The Global Citizenship Scale measures three dimensions of global citizenship, with six related sub-dimensions. The Academic Development Scale measures two dimensions of academic development, with two related sub-dimensions.

Quasi-Experimental Study

1. *Self-selection is a factor.* The findings clearly point to the presence of self-selection in the study, with students in the embedded courses showing significant and consistently higher global citizenship and academic development mean scores. Education abroad participants are likely drawn to embedded education abroad opportunities because of their already high level of global citizenship and self-evaluation of their academic abilities and commitment to learning.

2. *Both samples showed global citizenship pre-/post-test gains.* Both embedded and match samples showed overall positive increases in global citizenship. Both showed increases in global civic engagement and global competence and significant decreases in social responsibility. At the sub-dimension level, only the embedded sample revealed increased mean scores on all six sub-dimensions. Whereas students in the embedded courses experienced gains in global knowledge, students in the match courses showed slight declines.

3. *Neither sample showed overall academic development pre-/post-test gains.* Neither sample showed positive gains in academic development. At the dimension level, both samples had higher academic self-efficacy scores compared to academic self-concept. Students in the embedded sample showed overall gains in academic self-efficacy, while students in the match courses experienced declines. Both samples experienced declines in academic self-concept. The high pre-/post-test mean scores for the embedded sample suggest the presence of a ceiling effect for academic development.

4. *Moderating variables have a limited impact on student learning outcomes.* Overall student learning outcomes did not vary significantly by gender, previous education abroad experience, foreign language proficiency, or program duration. However, those who have not studied abroad before showed increases in both global competence and global civic engagement, suggesting a "first time effect" of education abroad (McKeown, 2009). Those with some foreign language proficiency showed significant increases in global civic engagement.

Enrollment Analysis

1. *Education abroad is an undergraduate experience for a select population of students.* The results showed that education abroad at Penn State is very much an experience for a select population of undergraduate students. The enrollment is disproportionately white and female, and nearly 50% have no demonstrated financial need or FAFSA on record. Most are between the ages of 20 and 22 and are academically successful students majoring in a business related field. Many students are seniors, Pennsylvania-residents, and are from highly educated families.

2. *There have been only modest enrollment changes since 2005/06.* What changes there have been over time may be due to the increased access to embedded programs (i.e., increasing proportion of non-traditional students, students from non-University Park campuses, etc.). Proportional representation of students choosing full-year, semester, and summer programming has remained stable. The majority of all students choose destinations in Europe, and there has been no movement in favor of non-traditional locations. The number of students with full financial need has decreased proportionately.

3. *Program type appeals differently to particular populations of students.* Embedded programs represent greater student diversity, a wider array of academic disciplines, more diverse geographical destinations, and are host to students from throughout the whole of the university's many campuses. Heritage plays a role in students' decisions about where to study. First-generation students are disproportionately enrolled in embedded programs. Students with greater financial need are more likely to participate on embedded education abroad programs or academic-year programs.

4. *There is no overall GPA benefit associated with education abroad.* The findings reveal the presence of significant GPA changes before, during, and after studying abroad, but the changes are extremely small and without much applied meaning. The findings challenge the value of using the GPA as a reliable indicator of academic performance within education abroad outcomes research.

III DISCUSSION OF FINDINGS

The discussion of the findings is presented in three distinct sections. The discussion begins with a brief discussion of the scale development process, followed by a discussion of the two primary research questions for which the quasi-experimental study was conducted. Lastly, there is a discussion of the enrollment analysis and the four key questions on which it was designed. Penn State and national education abroad datasets are referenced to situate these findings within a broader educational context.

Global Citizenship & Academic Development Scales

It was necessary to develop scales with which to measure global citizenship and academic development in order to effectively conduct the quasi-experimental study. The scale development process identified three dimensions of global citizenship with six related sub-dimensions. Social responsibility proved to be a dimension of global citizenship with a less clearly defined structure. Global competence and global civic engagement are both strong dimensions of global citizenship, however, and each has three reliable sub-dimensions that further refine the construct. The study identified two dimensions of academic development but with less precision at the sub-dimension level. Academic self-concept revealed one factor combining expanding academic interests and learning from others. Academic self-efficacy showed two strong sub-dimensions, a combined factor of choice and effort and another sub-dimension on persistence. Overall, the scale development process yielded reliable and valid scales to measure the complexity of global citizenship and academic development. Although some modifications are still needed, the scales and their conceptual frameworks have important implications for education abroad outcomes research and practice.

Quasi-Experimental Study

The purpose of the quasi-experimental study was to demonstrate how much embedded education abroad experiences enhance academic development and lead to measureable gains in global citizenship. The results provide new evidence that should inform education abroad outcomes assessment research and potentially advance program development and implementation practices. To review, Figure 7.1 offers an illustration of the research model that underpinned this study and the relationships that were examined. As shown in the model, global citizenship was understood as a

multi-dimensional construct that entails three interrelated dimensions. Academic development was also broadly understood in relation to two interrelated dimensions. Within each dimension of global citizenship and academic development were multiple sub-dimensions which further elucidated the conceptual scope of these two constructs. Additionally, gender, previous education abroad experience, language proficiency, and program duration were analyzed as moderating variables. The model also shows a loop between learning outcomes and education abroad experience to illustrate that choosing to study abroad may be a reflection of one's preexisting level of global citizenship or academic development, which is another way to convey self-selection within the education abroad population.

Figure 7.1: *Research Model of Education Abroad Learning Outcomes: Global Citizenship and Academic Development*

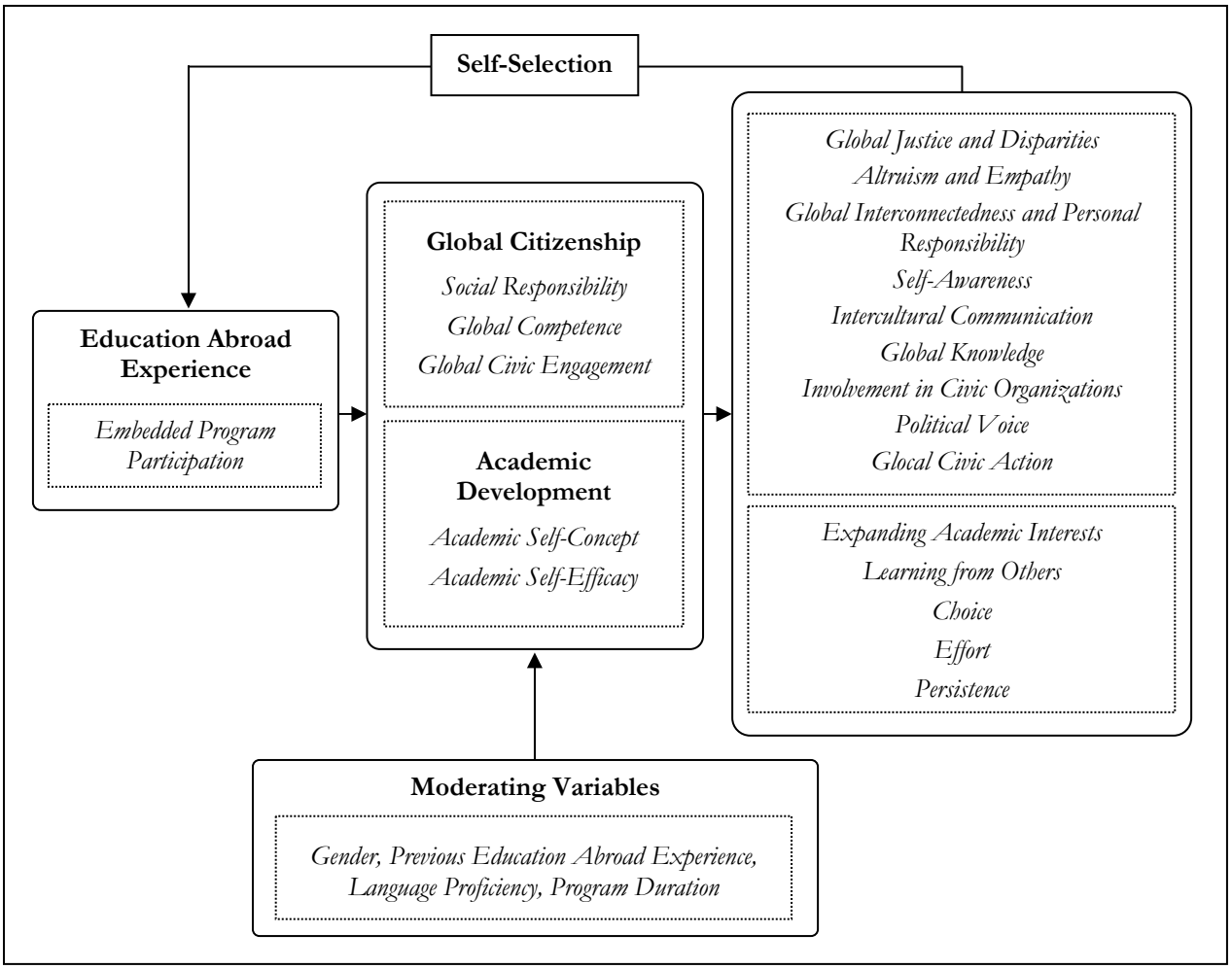
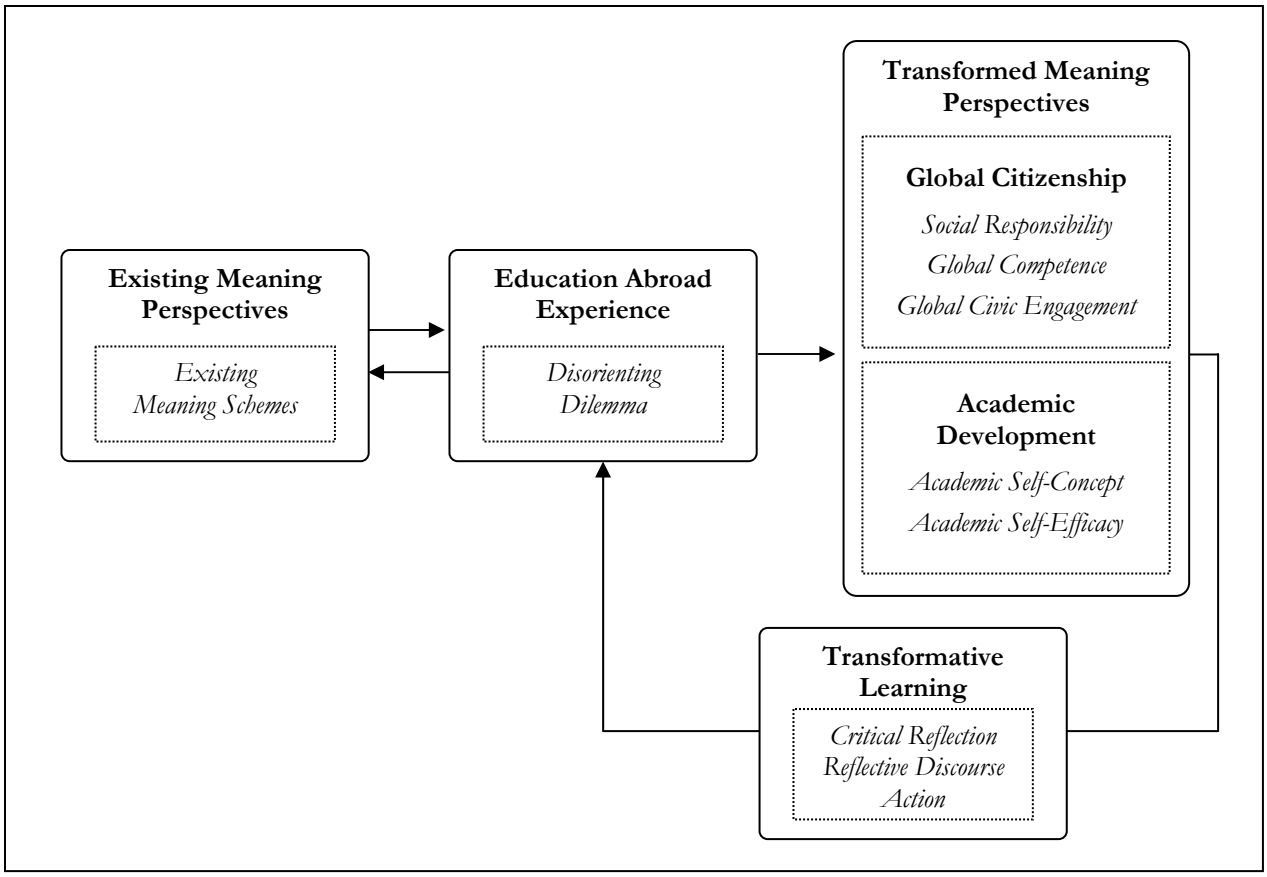


Figure 7.2 illustrates the Transformative Education Abroad Model (TEAM) proposed herein to represent the application of Mezirow's Transformative Learning Theory (Mezirow, 1978, 1991, 1996, 2000) to student learning in education abroad. TEAM outlines the process of how an education abroad experience potentially initiates a transformative learning process toward global citizenship and enhanced academic development. In the course of an education abroad experience, students are challenged by new experiences in the host culture, potentially leading to emotional and intellectual confusion. The intercultural and intellectual experiences of an education abroad experience have the potential to foment a major shift in students' frames of reference leading to a reinterpretation of themselves as engaged global citizens and autonomous learners. Related research has shown that through critical reflection, reflective discourse and action, education abroad experiences do result in the transformation of meaning perspectives (Golay, 2006; Whalley, 1996). Others have shown that transformative learning leads to social responsibility (Parks Daloz, 2000), civic engagement (Lange, 2004), and to learner autonomy (Mezirow, 2000). The results of this study will be positioned within TEAM.

Figure 7.2: *Transformative Education Abroad Model (TEAM)*



Question One: ***To what extent does participation in embedded education abroad programming mediate changes in students' global citizenship and thereby, social responsibility, global competence, and global civic engagement?***

The analysis of the data shows that the two samples vary with regard to their pre-/post-test levels of global citizenship and in the pattern with which they change over time. Students in the embedded courses have significantly higher pre-/post-test mean scores for global citizenship overall and among the three dimensions of social responsibility, global competence, and global civic engagement. The largest gap between the two samples is with global civic engagement, which remains largely unchanged between pre-test and post-test measurements. This is followed by global competence and social responsibility, for which the differences narrow slightly over time. Interestingly, global civic engagement has the lowest overall mean scores among the three dimensions for both samples but is the dimension which shows the most positive growth for both. Overall, the findings clearly point to the presence of self-selection in the embedded sample, suggesting that students in these courses are likely drawn to education abroad opportunities because of their already high level of global citizenship (Chieffo & Griffiths, 2003; Dwyer, 2004; Hadis, 2005b; Rundstrom Williams, 2005). The literature in this area suggests that because these students are already to some degree global citizens they pursue international education experiences. Studying abroad becomes a means through which these students can express or exercise their global citizenship. The experience is likely more celebratory than transformative.

Both groups showed positive increases in global citizenship over time, but only the students in the match courses showed overall significant changes. Both embedded and match samples showed significant increases in global civic engagement, and roughly at the same rate of change. Similarly, both samples showed slight increases in global competence, but only among the match courses was there a statistically significant increase. Both samples showed significant decreases in social responsibility, which is inconsistent with Parks Daloz (2000). Because the rate and pattern of change at the dimension level is generally parallel between the two samples, the findings point to the presence of a testing effect in the data (Krathwohl, 2004; Singleton & Straits, 2005). Future research that utilizes larger and comparable samples is needed to be able to more reliably identify and attribute changes to the education abroad experience.

As revealed in the scale development process, social responsibility proved to be a dimension of global citizenship with a less clearly defined structure, and in result, 7 of 13 items were omitted. This left only six questions, all of which were reverse coded, meaning that 1 rather than 5 would

have been the most desirable answer. Because most all other questions on the global citizenship scale were positively scored with 5 being the most desirable answer, students may have been confused by the wording of these questions. The three student group interviews using nominal group technique also revealed that social responsibility was a difficult dimension for students to understand. As such, additional work is needed to both better operationalize this dimension and to revise the global citizenship scale accordingly. Moreover, further research is needed to explore if the decline in social responsibility is a result of a testing or design error, or if in fact, students do experience real declines in social responsibility. For example, embedded programs in this sample may do very little to enhance students' sense of social responsibility over the course of the semester. Would service learning or experiential learning-based programming yield different social responsibility results? Alternatively, it may be possible that the international experience abroad encouraged students to renegotiate their perceived levels of interdependence and social concern to others and as a result, their post-test answers reflected a more mature and informed assessment of their views toward social responsibility. In other words, the international experience may prompt students to more deeply question issues of global injustice and disparities in the world or to reorganize their frames of reference to better understand the interconnectedness between local behaviors and their global consequences. Related research on students' intercultural sensitivity development through education abroad has also shown a similar pattern of declines, which has been attributed in part to students becoming more mature and reasoned in their responses to individual inventory items (Anderson et al., 2006). The extent to which this is happening with social responsibility needs to be further explored.

As mentioned earlier, global civic engagement is the dimension with the lowest overall mean scores and yet, it is the very dimension which showed the most overall positive growth over time. In fact, it was the only sub-dimension in which the embedded sample experienced statistically significant increases. At the sub-dimension level, both samples experienced positive increases in involvement in civic organizations, political voice, and global civic activism. Overall, the embedded sample, however, had statistically higher pre-test and post-test mean scores across all sub-dimensions. Although the pre-/post-test changes may point to testing effect and related threats to internal validity, the findings suggest that students who seek out embedded programs are significantly more predisposed to civic engagement initiatives. Moreover, experiences in the embedded programs suggest that these students become even more willing to engage in purposeful behaviors that advance a global agenda. As such, those embedded programs that integrate service

learning and similar community-based learning opportunities may especially appeal to a population of undergraduate students who want to engage in local communities abroad as an expression of their commitment to global civic engagement, as has been suggested by Moely et al (2002a, 2002b).

At the sub-dimension level of global citizenship, the findings revealed that both samples experienced parallel changes. The embedded sample revealed increased mean scores over time on all six sub-dimensions, although none were statistically significant. For these students, the three sub-dimensions for global civic engagement, though not individually significant, combine to produce statistical significance. Pre- and post-test results for the match courses, which have a much larger sample size, also showed increases at the sub-dimension level. Although the two samples show comparable gains over time, the embedded and match courses differ with respect to global knowledge. Only at this sub-dimension level do the two samples diverge. Whereas students in the embedded courses experience slight gains in global knowledge, students in the match courses show slight declines in global knowledge. Although this may be to some degree a reflection of the limited sample size, the findings suggest that students do become more knowledgeable of current global issues by participating in academic courses that are more international in nature.

The analysis also examined the internal and external moderating effects of gender, previous education abroad experience, language proficiency, and program duration within the embedded education abroad sample. The results showed that although women are disproportionately represented within the sample, student learning outcomes did not vary by gender. Both genders have comparable learning outcomes, showing modest gains in global competence and global civic engagement and a decrease in social responsibility. Those with previous study abroad experience have significantly higher global citizenship mean scores, both at the outset of the course and at the semester end. However, the results suggest that previous study abroad experience does little to moderate increased learning outcomes. Nevertheless, those who have not studied abroad before do show increases in both global competence and global civic engagement, suggesting that for these students, embedded education abroad programming may very well be influential to develop global citizenship. In a related study, *The First Time Effect: The Impact of Study Abroad on College Student Intellectual Development*, McKeown (2009) found similar results. While those who have studied abroad before showed little change over time, those for whom studying abroad was a first-time experience showed significant change. McKeown refers to this as the "First Time Effect" of studying abroad.

Those with some second language proficiency have significantly higher global citizenship pre-test and post-test mean scores. Although the results suggest that foreign language proficiency does

little to moderate increased learning outcomes, those with some foreign language proficiency show a statistically significant increase in global civic engagement, suggesting that language has some moderating effect to potentially increase one's willingness to engage in actions such as volunteerism, political activism and community participation. Language proficiency may very well be a catalyst that empowers students to more actively engage in the community while abroad. As the international experience is already very brief, typically less than two weeks, the results showed that program duration did not predict global citizenship scores.

The findings offer partial support of the TEAM. The students in the embedded courses showed an overall increase in global citizenship and increases in the dimensions of global civic engagement and global competence. The results revealed increased mean scores on all six sub-dimensions. Because the students in the embedded courses are highly self-selected students with higher global citizenship mean scores, the TEAM would suggest that the international experiences were not disorienting enough to mediate significant pre-/post-test changes. Because those students with no previous education abroad experience show stronger gains in global citizenship would suggest that for these students, the experiences were to a greater extent transformative. The findings also suggests that instrumental to this transformative learning process in embedded programs is the faculty leader, whose role is to encourage students to critically reflect on and discuss their experiences in ways that lead them to constructive and purposeful action.

In summary, one may interpret the findings of this study to suggest that embedded education abroad programming does little to mediate significant changes in students' global citizenship. Because both embedded and match samples generally experienced comparable gains in global citizenship over time, it may be reasonable to conclude that the integration of education abroad experiences into the undergraduate curriculum contributes little to guiding students into seeing themselves as engaged global citizens. However, given the limited sample size and the presence of noted and explained threats to the study's internal and external validity, this interpretation may be too premature. Rather, these findings suggest that further research is needed that uses larger sample sizes, employs methodologies and/or statistical measures to account for self-selection bias, and examines student learning outcomes comparatively by program duration. Although institutional strategies that position education abroad programming as a central means through which to educate global ready graduates may be well-placed and well-regarded, further research is still needed in this area before reliably claiming that such efforts are justified and truly effective.

Question Two: ***To what extent does participation in embedded education abroad programming enhance academic development, specifically with regard to academic self-concept and academic self-efficacy?***

Neither the embedded nor the match sample showed positive changes toward academic development over the course of the semester. Students in the embedded sample showed overall higher mean scores for academic development at both the outset and end of the semester and had consistently higher mean scores on both dimensions of academic self-concept and academic self-efficacy. As with global citizenship, self-selection appears to have an influential role in academic development (Chieffo & Griffiths, 2003; Dwyer, 2004; Hadis, 2005b; Rundstrom Williams, 2005). The data suggest that students in the embedded courses have a higher evaluation of their own academic abilities and commitment to their course work than students in the match courses. Further research is needed to explore why students with self-reported higher levels of academic development seek out international education experiences and whether this pattern is consistent across all program types. If so, a working hypothesis might suggest that because these students have a higher perception of their academic abilities and believe they are more autonomous and responsible learners, studying abroad is viewed as an exciting challenge they feel prepared for and are willing to experiment with other systems of education.

Highly achieving students may also be disproportionately recruited into these embedded programs by faculty leaders. Although these programs do not typically have a formal selection process, there may be an element of screening in the recruitment of students. In other words, professors may be implicitly recruiting more academically successful and talented students. Whereas students in the match courses reported choosing their courses based on academic requirements and at the recommendation of their advisors, students in embedded courses report doing so for personal reasons and at the suggestion of their professors. (The enrollment analysis provides corroborating evidence that students participating on embedded programs have on average a 3.30 GPA, which suggests that these students are indeed academically successful students, whether self-selected or recruited into these programs.)

Also particularly noteworthy is the high level of academic development relative to global citizenship. On average, students in both samples had academic development mean scores of nearly 1.0 point higher than their respective global citizenship scores. In particular, students in the embedded sample showed statistically higher mean scores for academic development at both the outset and end of the semester, and these scores remained unchanged over time, holding at 4.04.

While the relative high academic development scores may be attributed to a social desirability bias inherent to self-assessments of this nature (Nunnally, 1978; Messick, 1979; Reynolds, 1988), the scores may also suggest the presence of a ceiling effect occurring for academic development, which has been found in other outcomes studies (Hadis, 2005b; Vande Berg, Connor-Linton, & Paige, 2009). In other words, students in the embedded courses may have already neared the highest level of academic development and would thus not be expected to show continued growth over time. This would explain why these students do not demonstrate significant change in academic development (Hadis, 2005b), suggesting rather that their learning reach a plateau. For these students, study abroad may be more of an opportunity to flex their academic prowess rather than an occasion to refine and enhance the academic development. Rundstrom Williams (2005) reached the same conclusion in her study exploring the impact of study abroad on intercultural sensitivity development. These findings may also suggest that utilizing a 5-point Likert-type scale may not capture the more subtle nuances of academic development change over time and as such, a more expanded scale may need to be considered in future research.

At the dimension level, the results showed that all students generally have much higher academic self-efficacy scores compared to academic self-concept. However, the findings showed that students in embedded courses experience a slight gain in academic self-efficacy, while students in the match courses actually experience a decrease. At the sub-dimension level of academic self-efficacy, the results show that students in embedded courses experience gains in both sub-dimensions of choice and effort. Students in the match courses show decreases across both of these sub-dimensions. These results suggest that embedded students have and maintain a stronger sense of self-efficacy, which may be an influential factor in their overall academic success and decisions to study abroad. It may also be reflected in their expectations to receive higher course grades than students in the match courses (Choi, 2005; Pajares, 2002; Multon, Brown & Lent, 1991; Pascarella & Terenzini, 2005). These students believe they personally have what it takes to manage their learning environment and maintain their commitment to course work, and they expect to be rewarded for their efforts. This is oddly stronger than their perceptions of their own academic abilities as reflected in the academic self-concept scores.

Both samples showed a decline in academic self-concept, which again refers to perceptions of one's own academic abilities (House, 1992; Reynolds et al., 1980; Reynolds, 1988; Waugh, 2002; Woodside, Wong, & Wiest, 1999). Students in embedded courses experienced a decline in academic self-concept, but this was not statistically significant. Students in the match courses also showed a

slight decline in academic self-concept, which was also not significant. This parallel decline across both samples may point to the presence of a testing effect in the data but might also suggest that academic self-concept is a less clearly understood concept for these students. Based on the factor analysis of the academic development scale (see chapter 4), questions relating to the two initial sub-dimensions for academic self-concept (expanding academic interests, learning from others) were omitted, resulting in one integral dimension of academic self-concept without clearly defined sub-dimensions. As such, further research is needed to revisit the operationalization of this dimension and to investigate alternative reasons for why there may be a decline in self-concept. One potential explanation for this parallel decline may be the timing of the post-test, which took place during the final stage of residential instruction for both samples. This is also an intense period of final course work, examinations, papers, and so forth that often coincides with high levels of anxiety, stress, and academic insecurity.

The analysis also examined the internal and external moderating effects of gender, previous education abroad experience, language proficiency, and program duration within the embedded education abroad sample. The results showed that there are no significant main effects by gender for academic development. Both genders show slight decreases in academic self-concept and increases in academic self-efficacy. Although those with previous study abroad experience show slightly higher academic development mean scores, the results suggest that previous study abroad experience does little to moderate increased student learning outcomes. Similarly, those with some foreign language proficiency indicate higher academic development mean scores, yet foreign language proficiency does little to moderate outcomes. Program duration also does not predict academic development scores.

The findings offer support of the TEAM. Although neither sample showed positive overall gains in academic development, the embedded sample showed gains in academic self-efficacy and its sub-dimensions of choice and effort and persistence, which is consistent with transformative learning theory. According to Mezirow (2000), learner autonomy is a competency that is acquired through transformative learning. Mezirow explained that the process of critically reflecting on experiences, participating in an open discussion with others about these experiences, and acting on the new learning leads to responsible and autonomous learners. Hunter (2008) also claimed that transformative learning allows students to cultivate a sense of self-efficacy that can enhance their academic development. Again, the findings point to the instrumental role of the faculty leader in facilitating student learning. As the academic nature of embedded programs varies little during the

international travel component of these courses, the students' experiences may not be disorienting enough to mediate significant pre-/post-test changes. Future research that assesses academic development outcomes by program type is needed, hypothesizing that the greater the differences between academic cultures, the greater pre-/post-test changes in academic development.

In summary, one may interpret the findings of this study to suggest that embedded education abroad programming does little to enhance overall levels of academic development. As similarly discussed with regard to global citizenship, this interpretation may be premature. Because of significant self-selection issues inherent to the sampling as well as to the potential presence of various threats to the study's internal and external validity, drawing inferences based on these results may be problematic. Rather, these findings suggest that further and more nuanced research on academic development as a learning outcome of education abroad is needed. In particular, research that compares academic development by program type (i.e., summer, semester, and academic year programs) as well as understanding how within program variations impact student learning would be useful. For example, does enrolling directly in courses offered by foreign institutions, as opposed to courses offered exclusively for American students abroad, lead to enhanced academic self-efficacy and academic self-concept? Does taking courses taught in the host language lead to different learning outcomes?

Enrollment Analysis

By conducting a comprehensive, four-year enrollment analysis, this study offers new evidence that both challenges and confirms some long-held assumptions of the traditional education abroad student profile. Unlike national datasets on education abroad participation, this analysis has sought to more comprehensively account for traditionally underrepresented or unacknowledged populations, how enrollment patterns have changed over time, and how enrollment patterns vary by program type/duration and destination. Moreover, the study provides data that challenge the GPA benefit claimed to be associated with education abroad programming. Four key research questions guided this enrollment analysis, and the results for each were presented along four characteristic areas of enrollment: demographics, academics, programmatic, and institutional. A brief discussion of the findings for each research question follows.

Question One: ***Does contemporary education abroad remain mostly an opportunity for white, middle-class, female students majoring in the social sciences?***

The data show that education abroad programming at Penn State, though large in total enrollment, remains limited to a small proportion of students. Roughly 1.75% of all Penn State students currently study abroad in spite of ongoing and concerted efforts in recent years to integrate international education opportunities into the undergraduate experience (UOGP, 2009). Of those who do study abroad, the majority are white females. Most are between the ages of 20 and 22 and are academically successful students majoring in a business related field on the University Park campus. Many students are seniors, Pennsylvania-residents, and most have only minimal financial need. Based on these data, it appears that education abroad at Penn State remains very much an experience for a select population of students who are able and eager to enhance their education through international experiences.

But to what extent is this population a skewed representation of the Penn State student body? To better understand this question, it was necessary to situate the student data within the overall Penn State student body profile. Doing so required collecting additional data from the Office of Student Aid, the Penn State Fact Book, and other published University sources. While all attempts were made to allow for comparisons across like groups, this was not uniformly possible. In particular, the Penn State enrollment information is based on fall 2008 data, as opposed to an average of four academic years, as is the case with the education abroad data. Also, the Penn State data include non-degree, provisional, and World Campus enrollments. Because of this, caution is necessary when comparing education abroad enrollments in relation to the institution population. Still, strategically important comparisons emerge and warrant discussion (see Table 7.1).

Given that education abroad programming at Penn State appeals predominantly to seniors, it is not surprising to find that the majority of students are between the ages of 20 to 21 whereas the Penn State population is mostly within the age range of 17 to 19. Female students are disproportionately overrepresented in education abroad enrollments, at 58.6% to 45.8%. Conversely, first-generation students are disproportionately underrepresented, at 20.5% to 32.0%. What is particularly surprising is that minority students are not underrepresented in education abroad programming. In fact, Asian-Americans and Hispanic-Americans are slightly overrepresented when compared to the institutional population, while African-American participants are noticeably underrepresented, at 3.5% to 5.7%. Overall, this may be an indication that the University's Diversity Grant-in-Aid fund targeting minority students and related other strategic outreach initiatives are

effectively reaching these populations. Alternatively, the percentages may be skewed by the fact that 8.1% of the sample is unreported.

Nearly one-third (27.9%) of all education abroad participants did not have a FAFSA on record at the time of studying abroad. Of all students who did submit a FAFSA, the proportional need did not vary much across both groups. While 80.4% of all Penn State students who submitted a FAFSA had some financial need, a comparable 71.8% of education abroad participants had demonstrated need. As such, this may be more suggestive of a pattern for those who submit FAFSA reports rather than any real indicator of the relationship between need and education abroad participation. However, this analysis does reveal that 48.3% of all education abroad students either had no demonstrated financial need or FAFSA on record. Because those with at least some demonstrated financial need (51.7%) are represented in education abroad programming, need may not actually be a deterrent to studying abroad to the extent that has been believed.

Comparing these findings to the Open Doors 2008 dataset provides another perspective from which to understand how the Penn State student profile compares with national averages (see Table 7.1). It is immediately evident that white, female students dominate education abroad enrollments at the national level. As such, it should not be surprising to have comparable findings at Penn State, though to a lesser degree. While minority student enrollments within the Penn State study abroad sample (12.8%) generally reflect the Penn State population (13.9%), albeit with room for growth, this level of participation is considerably lower than national averages (16.5%). However, this may be more a reflection of the Penn State enrollment than with education abroad participation. Also noticeably different is the rate at which junior and senior-standing students participate in education abroad opportunities. While there may be several explanations for why seniors are heavily represented in the education abroad population, this may simply be due to the fact that Penn State has for many years required students to apply to study abroad nearly one year prior to the program start. Many students may be unprepared to consider education abroad opportunities during their underclassmen years or simply may miss the application deadlines.

Table 7.1 *Comparative Enrollment Trends, Institutional and National*

Characteristics	Education Abroad	Penn State[a]	IIE[b]
Gender			
Female	58.6	45.8	65.1
Male	41.4	54.2	34.9
Age			

17-19	8.1	41.0	n/a
20-	23.5	18.9	n/a
21	38.5	15.1	n/a
22	14.8	7.3	n/a
23-25	7.8	5.8	n/a
>26	7.3	11.4	n/a
Class Standing			
Senior	57.5	18.7	21.3
Junior	27.2	21.2	36.6
Sophomore	7.0	22.2	12.9
Freshman	0.7	26.2	2.7
Graduate/Other[c]	7.6	11.6	26.5
Race/Ethnicity			
White American	77.8	81.0	81.9
Asian American	5.5	4.8	6.7
Hispanic American	3.8	3.4	6.0
Black American	3.5	5.7	3.8
Foreign	1.1	4.9	n/a
Native American	0.1	0.1	0.5
Unreported	8.1	n/a	n/a
Multiracial	n/a	n/a	1.2
First Generation Status			
First Generation	20.5	32.0	n/a
Not First Generation	79.5	68.0	n/a
Need Index[d]			
No FAFSA	27.9	32.0	n/a
0	28.3	19.6	n/a
1-49	24.9	21.8	n/a
50-99	36.9	45.8	n/a
100	10.0	12.8	n/a
Residency Status			
Pennsylvania Resident	72.8	76.9	n/a
Non-Pennsylvania Resident	27.2	23.1	n/a

a. Data for gender, class standing, race/ethnicity, and residency are based on the Penn State Fact Book [www.budget.psu.edu/factbook]. Non-degree and provisional enrollments are not included in the total enrollments for these variables. Age, first-generation status, and need index data were provided by the Penn State Office of Student Aid. Caution is needed when comparing education abroad enrollments with the institutional population. The Penn State enrollment information is based on fall 2008 or 2009 data, as opposed to an average of four years, and includes non-degree, provisional, and World Campus enrollments.

b. Open Doors 2008, Report on International Educational Exchange, Institute of International Education

c. Includes enrollment data from the Dickinson School of Law.

d. Those with no FAFSA on file account for 27.9% of the population. The other percentages are calculated on those with a FAFSA on file, with missing data removed. For example, those with zero need reflect 20.4% of the total population, but 28.3% of those with no FAFSA on file.

In summary, the data strongly suggest that contemporary education abroad, at least at Penn State, is very much an experience for a select population of undergraduate students. While the data generally reflect national trends in education abroad, the enrollment demographics are not representative of the general Penn State student profile. The enrollment is disproportionately white, female, and nearly 50% have no demonstrated financial need or FAFSA on record. The majority of students represent just five fields of study: business management and administrative services, communications, social science and history, architecture and related programs, and engineering. Moreover, the data suggest that education abroad at Penn State targets upperclassmen from highly educated families. All of which is to say, education abroad at Penn State, as with education abroad trends at the national level, remains mostly an exclusive educational opportunity. These findings should send a very clear signal to international educators and administrators, based at Penn State and elsewhere, of the need to more purposefully and strategically remove real and perceived barriers to education abroad for undergraduate students and to more actively promote education abroad to all students in all disciplines.

Question Two: ***What enrollment trends in the education abroad population have manifested between the 2005/06 and the 2008/09 academic years?***

While education abroad continues to steadily expand at Penn State, the profile of students going abroad, the destinations they go to, and the fields they study have not changed much since 2005/06. Counter to expectations, proportional representation of students choosing full-year, semester, and summer programming has remained stable. Student demographics also show little fluctuation and suggest that institutional efforts to diversify enrollments have done little other than to maintain status quo. While the top fields of study have not changed, an increasing proportion of students from business management and administrative services are studying abroad, and enrollments from the social sciences and history are decreasing. There has also been little change in the region or countries where Penn State students choose to study.

The data do reveal an interesting change in student need over time. The proportion of students that do not have a FAFSA on record has declined since 2005/06, and yet, the proportion of students with limited or no financial need has proportionately increased. However, the proportion of students with full financial need has proportionately decreased. These patterns suggest that a greater number of participants are submitting FAFSA reports than in previous years. Perhaps this increase is in response to the rising cost of higher education and of education abroad programs

or alternatively, the increased interest in higher cost, education abroad programs organized by provider organizations, which have also shown proportional enrollment increases over the same timeframe.

As mentioned earlier, the number of U.S. students receiving academic credit through international education experiences is dramatically increasing, with between 8-10% annual growth in recent years. In particular, the 2008 Open Doors report states that students are more frequently choosing to study in non-traditional destinations outside of Western Europe. Although Europe continues to host the largest proportion of students (57%), the number of U.S. students studying in China, Argentina, South Africa, Ecuador, and India each has increased by more than 20% over the previous year. The leading destinations include the United Kingdom, Italy, Spain and France, but also among the top destinations are China (#5), Mexico (#7), and Costa Rica (#10). IIE claims that this increase has been fueled in part by new program opportunities, international partnerships and linkages, and a broadening of fields and program durations to accommodate the needs of an increasingly diverse education abroad population (2008). The duration that students spend abroad has reportedly continued to shift in favor of short-term programs. Just over 40% of students now study abroad on semester-length programs, while 55% choose short-term programs of less than eight weeks. IIE claims that short-term programs appeal to those whose financial or academic needs preclude longer stays abroad (IIE, 2008).

As shown in Table 7.2, the 2006/07 comparisons with IIE Open Doors national data suggest that, while both national and institutional enrollments are increasing, Penn State enrollments grew at a lower rate, with Penn State growing at a rate of 5% compared to the 8% national average. (In recent years, however, Penn State enrollments have surpassed national averages.) Program duration is generally in line with national averages, although Penn State students are not participating in academic year programs to the same degree: 1.5% compared to 4.4%. Although there has been a nationwide shift in favor of short-term programs, Penn State education abroad has not experienced any such shifts in enrollment patterns over the past four years. The findings indicate that proportional enrollments across all program types have held steady and that still, the majority of Penn State students (42.5%) favor semester-length programs. The claim that students are increasingly choosing shorter programs does not hold true for Penn State students during this timeframe, which suggests the need to examine enrollment changes over a longer time period.

Perhaps what is most surprising is the finding that shows that while national trends are increasingly in favor of nontraditional destinations, this does not seem to be the case with Penn

State students. There has been no significant movement in favor of non-traditional locations and over 70% of all Penn State students still choose destinations in Europe. While China and Mexico are now among the top leading destinations in the nation, these two non-traditional destinations are not among the most popular destinations for Penn State students. There is some evidence which shows that strategic funding initiatives can influence students' decisions about where to study (Obst, Bhandari, & Witherell, 2007). Yet, in spite of the University creating a new scholarship fund in 2005/06 specifically in support of studying in nontraditional locations, the proportion of Penn State students choosing these destinations has only minimally fluctuated. What changes there have been (i.e. Latin America) can likely be attributed more to embedded programming than to an overall shift in favor of non-traditional destinations.

Table 7.2 *Comparative Enrollment Trends, Institutional and National*

Characteristics	Penn State (%)	IIE (%)[a]
Yearly Growth Rate		
2005/06	-	+8.5
2006/07	+5	+8.0
2007/08	+8.5	-
2008/09	+12	-
Program Duration (2006/07)		
Short-term (Summer/January term/2 to 8 weeks)	56.5	55.4
Mid-length (Semester/One or two quarters)	42.0	40.2
Long-term (Academic/Calendar year)	1.5	4.4
Most Popular Destinations Ranking (2006/07)		
	1. Italy (22.4)	England (14.6)
	2. Spain (13.0)	Italy (12.5)
	3. England (8.2)	Spain (10.7)
	4. France (5.9)	France (7.7)
	5. Australia (5.1)	China (4.9)
	6. Ireland (3.9)	Australia (4.8)
	7. New Zealand (3.1)	Mexico (4.2)
	8. Netherlands (3.0)	Germany (3.3)
	9. Germany (2.8)	Ireland (2.6)
	10. Costa Rica (2.3)	Costa Rica (2.4)
Regional Breakdown Ranking (2006/07)		
Europe	70.2	57.4
Latin America	9.6	15.0
Asia	5.6	10.3
Oceania	8.2	5.7

Africa	4.4	4.2
North America	1.8	0.6
Middle East	0.0	1.2
Multiple Destinations	n/a	5.6

a. Open Doors 2008, Report on International Educational Exchange, Institute of International Education. Report is based on 2006/07 data.

In summary, the data show only modest changes in the overall enrollment trends at Penn State in spite of significant changes in recent years at the national level. Perhaps this is due in part to the narrow timeframe of the analysis as well as to the reference years in which the data can be compared to national enrollment trends. Still, the data do suggest any changes there may have been were in response to the increased number of and greater access to embedded programs. These data show an increasing proportion of non-traditional students participating in education abroad programs, and 84% of these students are doing so on embedded programs. Similarly, an increasing number of students from non-University Park campuses are studying abroad, and over 83% choose embedded programs, thus confirming these campuses rely particularly on embedded programming for their students. Overall, these findings once again suggest embedded programs disproportionately appeal to a very different population of undergraduate students.

Question Three: ***How does the student profile vary by education abroad program type?***

The results of the enrollment analysis point to significant differences between the four program types, suggesting program type does in fact appeal differently to particular student populations. For example, male students are more heavily drawn to embedded programming. Minority students, particularly Hispanic and Black students, are also disproportionately drawn to embedded programs. For Freshmen and Sophomores, embedded programs appear to be the most feasible way to gain a credit-bearing, international education experience while an underclassman. The same applies for first-generation and non-traditional students. Particular fields of study are disproportionately represented in embedded programs, such as agriculture, engineering, and physical sciences, all of which are known for having regimented curricular requirements that make it difficult to study abroad for longer durations (Blumenthal & Laughlin, 2009).

Although there has been a growing body of literature related to minority students studying abroad, much remains to be investigated on heritage students in education abroad (Comp, 2008). These data show that heritage appears to play a role in students' decisions about where to study.

Black students chose destinations in Africa three times expected levels and similarly, Asian students chose destinations in Asia four times more than would be expected. Related research has shown very similar findings. Neff (2001) found that 23% of those studying abroad in Africa were African Americans, despite the fact that only 3.4% of his sample was African American. Similarly, Szekely (1998) found a similar pattern with Arab-American students studying in Egypt and Korean-Americans choosing South Korea. There has been a gamut of explanations offered as to why this is the case, some suggest that heritage students feel a sense of homecoming and acceptance and others claim that there is an insufficient array of programs that respond to the interests and needs of these students (Carroll, 1996; Tsantir, 2005; Neff, 2001). All urge that institutions recognize the benefits of education abroad for these students and make their participation in education abroad an institutional priority.

Financial need significantly impacts program choice, indicating students with greater financial need are more likely to participate on embedded education abroad programs or academic-year programs. Although embedded programs are typically more expensive than longer-term programs if calculated on a daily rate, the total out-of-pocket expenses are less. This may explain why students with greater financial need choose embedded programs. Alternatively, the option of traveling abroad with the familiarity of one's classmates and professors may be a more attractive and less intimidating choice for certain students. The data indicate academic-year programs are also common among students with higher levels of financial need. As most of those Penn State students who study abroad for a full academic year choose to do so in Japan, this finding may be more a reflection of institutional culture than of actual need-based decision making. However, this finding may also point to the availability of financial aid and scholarships schemes (Obst, Bhandari, & Witherell, 2007). There are arguably more funding schemes to support studying in Asia over other regions of the world, including the National Security Education Abroad Program (NSEP), the Gilman International Scholarship, and a host of other Japan-based funding opportunities. Students who have the most financial need also benefit most by planning early and studying abroad for a full academic-year.

Academically, all program types enroll successful students, including embedded programs whose students had a mean GPA of 3.30. This finding is particularly encouraging because, unlike other program types, embedded programs typically do not require a minimum GPA of 3.0 to register for the course or to participate in the international travel component. Yet, these students are just as likely to be high achieving students. Programmatically, it appears embedded programs also

allow for greater diversification of destinations with these programs traveling more frequently to non-traditional locations. Whereas 43% of all embedded programs are to destinations outside of Europe, only 22.8% of semester and 16.5% of summer programs are outside of Europe. Of all students who study abroad in Latin America or Canada, approximately 70% and 85% respectively, do so through embedded programs. While such findings are arguably more a reflection of the portfolio of programs available to Penn State students, this is rather unlikely given the extensive and diverse array of nearly 200 semester and summer programs offered by Penn State. Institutionally, over 83% of all students who study abroad from non-University Park campuses do so through embedded programs, suggesting yet again that institution-type and/or campus-culture can have a significant impact on program choice and duration.

While summer and embedded programs are both considered together as short-term programs in the IIE Open Doors report, the findings of this study suggest summer and embedded programs enroll a very different student demographic. In fact, summer enrollments often align more closely with semester and academic-year enrollment patterns than with embedded programs. This is especially obvious with regard to student need. Need index for the semester ($M = 27.39$, $SD = 36.31$) and for summer ($M = 28.45$, SD 36.99) were not statistically different from each other, but both were statistically different from embedded programs ($M = 42.39$, SD 40.46). These data show that students with financial need are more likely to choose embedded programs over summer programs. The data suggest the widely-used catch-all phrase of "short-terms programs" may be misleading and potentially thwarting institutional efforts at effectively addressing under-representation in education abroad.

In summary, the data confirm the education abroad student profile does in fact differ by program type. In particular, the results confirm many widely-held assumptions claiming embedded programs appeal to a very different clientele. What is perhaps most revealing is the extent to which embedded programs attract a more diverse student population than other program types. Along each of the four enrollment characteristics examined (demographics, academics, programmatic, and institutional), the student profile of embedded programming is consistently and statistically more diverse. Within this dataset inclusive of four years of Penn State enrollment data, embedded programs unquestionably represent greater student diversity, a wider array of academic disciplines, more diverse geographical destinations, and are host to students from throughout the whole of the university's many campuses.

Question Four: ***To what extent does education abroad impact academic performance, as indicated by cumulative grade point average (GPA)?***

While the findings reveal the presence of significant GPA changes within this population before, during, and after studying abroad, the changes are extremely small and without much applied meaning. However, the results do suggest the presence of a "V" pattern in cumulative GPA change, which directly challenges claims of a GPA benefit associated with studying abroad (Clabby, 2008; Merva, 2003). In other words, grades earned abroad actually trigger a slight decline in GPA, but grades earned the semester upon returning to Penn State allow GPAs to rebound to nearly pre-departure levels. This pattern of change is similarly reflected when examining GPA change by program type. This especially holds true for students who participate on semester-length programs. This finding is particularly meaningful as semester students are generally required to take a full academic course load (usually 15 credits) while abroad, thus earning enough credits to statistically impact one's cumulative GPA. Results for summer programs are less meaningful, however, as these students earn on average just six academic credits while abroad. Interestingly, the pattern for summer students does not reflect a "V" but shows that students make consistent increases at each point in time. It is the only program type that shows an overall GPA gain after returning from abroad. In other words, summer program students do experience a slight GPA benefit, but again the change is very small.

More importantly, the findings challenge the value of using the GPA as an indicator of academic performance within education abroad outcomes research. For example, given that the majority of students in this population are upperclassmen who would have already amassed at least 75 credits, it would require significant under-performance while abroad to see a major fluctuation in one's cumulative GPA. These concerns extend to those students who enroll in embedded programs, as these students are in actuality earning credit for residential education and are not earning credit exclusively for international coursework. Also, students enroll in a wide array of courses while abroad, ranging from those taught exclusively for U.S. American students to those direct enrollment options in which students take courses alongside local students. The culture of grading in Europe, for example, may seem overly harsh to U.S. students, who seem to have grown accustomed to grade inflation (Becker, Geer, & Hughes, 1995; Hadis, 2005b). Thus, the results of this enrollment analysis may suggest less about overall academic performance and point more to the need for other reliable measures of academic learning outcomes in education abroad research (Astin, 1993; Pascarella & Terenzini, 2005).

Furthermore, given that the mean GPA for students across all program types is 3.38, it is safe to conclude that education abroad participants are generally high achieving students. Because these participants are already high achieving students, it is not surprising to see little GPA fluctuation. Simply, there is little reason to suspect these students will not continue to be academically successful during their education abroad experiences. The data challenge the popular myth among science majors, for example, which claims grades earned while abroad are likely to be lower and could negatively impact one's GPA. Many such students are typically bound for graduate school and are not surprisingly risk averse to factors that may hinder their enrollment options. Results of this analysis show that, just as there is no overall GPA benefit associated with education abroad, there is also no real GPA drop as a result of doing so. Good students here in the U.S. are just as likely to be good students while studying abroad and upon their return.

IV THEORETICAL & PRACTICAL IMPLICATIONS

The purpose of this study has been to provide much needed empirical evidence of the learning outcomes associated with embedded education abroad programming and to better understand the student profile of those participating in such experiences. In doing so, the study has aimed to contribute to scholarship and professional practice by developing and validating pre-/post-test scales to measure global citizenship and academic development and by completion of a comprehensive, four-year enrollment analysis of education abroad programming. Conceptual contributions to theory include understanding whether embedded education abroad programming is a pathway toward global citizenship and enhanced academic development. Moreover, the study has aimed to contribute to approaches to education abroad outcomes research by modeling the use of a nonequivalent control group design with embedded and match courses using pre-/post-test measures and analytical measures to account for self-selection bias. This section briefly discusses the theoretical and practical implications of the study, first discussing the implications of the scale development process and then addressing the quasi-experimental study and enrollment analysis.

Global Citizenship & Academic Development Scales

These scales provide education abroad outcomes assessment researchers with measures that align with the higher education mission to graduate global citizens and a tool with which to better understand and measure the success of international education efforts. The scales do not rely on student self-reports or reflections on their experiences abroad, yet they have been designed to align

closely with the goals of undergraduate education abroad. With some modification, the scales will ideally be used freely as pre-/post-test instruments and with control groups or in quasi-experimental research.

Moreover, defining global citizenship and academic development and creating a measure of these constructs validates the extensive research in these areas. This scale development process provides empirical evidence that the theoretical model of global citizenship delineates three interrelated dimensions (social responsibility, global competence, and global civic engagement) (Andrzejewski & Alessio, 1999; Carens, 2000; Dobson, 2003; Falk, 1994; Lagos, 2001; Langran, Langran & Ozment, 2009; Noddings, 2005; Parekh, 2003; Urry, 2000; Westheimer & Kahne, 2004). Similarly, academic self-concept and academic self-efficacy emerge as strong dimensions of academic development (Bandura, 1986; Bong & Clark, 1999; Cassidy & Eachus, 2000; Eachus, 1993; House, 1992; Gresham, Evans & Elliott, 1998; Pajares, 2002; Reynolds et al., 1980; Reynolds, 1988; Waugh, 2002; Woodside, Wong, & Wiest, 1999). The multi-dimensional model of each construct provides researchers with measurable constructs for two very complex ideas and the profession with a conceptual roadmap to develop and implement education abroad programs that enhance academic development and lead to individual gains in global citizenship. The sub-dimensions add additional refinement and outline a conceptual approach for structuring education abroad courses and programs with global citizenship and enhanced academic development as intentional learning outcomes.

One example to demonstrate these conceptual models of global citizenship and academic development within higher education practice can be seen as part of Penn State's Teaching for Global Citizenship Project (Morais, Ogden, & Buzinde, 2009). As part of a larger team, the author designed an *Embedded Education Abroad Faculty Toolkit* aimed at enhancing the learning outcomes of short-term, international academic experiences by creating pedagogical innovations for faculty leading embedded programs. Designed to heighten the ability of instructors to effectively integrate global experiences into their teaching, the Toolkit offers a selection of instructional activities, tried and tested in the field, to help faculty shape the international component of their courses in order to optimize academic learning and the development of global citizenship. The design of the faculty toolkit was based on the constructs of global citizenship and academic development, as developed in this study, and specific tools were developed to align with the dimensions and sub-dimensions of each construct. For each sub-dimension, related course objectives were developed, and tools were linked to each. The Toolkit is the first of its kind and aims to provide a much-needed resource for

faculty leading embedded education abroad programs. At some point, the global citizenship and academic development scales can be used to measure the extent to which the incorporation of these tools enhance student learning outcomes.

Quasi-Experimental Study

Responding to calls for a culture-learning theory in education abroad research (Hoff, 2008; Hunter, 2008), this study has built upon Transformative Learning Theory (Mezirow, 1978) to provide the Transformative Education Abroad Model (TEAM). TEAM offers international educators a theoretical model to explain the process of how an education abroad experience can initiate a transformative learning process leading students toward global citizenship and enhanced academic development. TEAM provides a conceptual framework emphasizes the importance of encouraging students to actively critically reflect on and discuss their international experiences in ways that lead them to constructive and purposeful action. Faculty members who are prepared to engage students in this intentional learning process will maximize the learning outcomes of their students.

The methodology used in this study contributes to practices in education abroad outcomes research by modeling the application of a less commonly used approach to data collection and analysis. The research methodology effectively utilized a nonequivalent control groups design with embedded and match courses. Also, the approach demonstrated the use of pre-test and post-test measures to account for self-selection bias and identify changes over the course of an education abroad program. As true experimental research designs are typically not feasible for this type of outcomes assessment research, a quasi-experimental study using matched pairs presents a reliable and manageable alternative to examine students' learning in education abroad.

The study relied on a diverse literature base to develop operational definitions of global citizenship and academic development. As education abroad becomes situated within the broader institutional and educational context of higher education, institutions are increasingly looking to education abroad as a vehicle through which to empower students to become responsible global citizens and to take responsibility for common global problems (Brown, 2006; Hunter, White, and Godbey, 2006; Lutterman-Aguilar and Gingerich, 2002). This study has not only provided an applicable and operational definition of global citizenship but has applied the definitions to measure the extent to which embedded education abroad programming leads to global citizenship. Although

the results of the study were such that changes in global citizenship could not independently be attributed to the education abroad experience, the findings suggest that students with already higher levels of global citizenship seek out these experiences and continue to develop as global citizens over time. Though further research is still needed, this study has offered a new perspective on understanding and a methodology to measure global citizenship as an intentional outcome of contemporary education abroad programming.

As an interdisciplinary undergraduate experience, research on academic learning outcomes associated with education abroad programming has been primarily limited to discipline-specific research or to measuring language proficiency gains. What minimal research there has been has focused on academic achievement or performance (Clabby, 2008; Merva, 2003; Paige & Stallman, 2007), and no known studies have examined academic development as it refers to the skills, strategies, and behaviors needed for students to perform as confident, independent, and active learners. This study may very well be the first to advance an understanding of academic development as it relates to education abroad programming and provides a potentially effective new way to broadly assess student learning outcomes across all academic departments and disciplines. Although this particular study revealed mixed findings with regard to academic development over time, the results do indicate that students who participate in embedded programs come to these experiences with a more positive assessment of their academic abilities, a greater sense of personal responsibility for their learning, and possibly even with a stronger commitment to their education. While there is obviously a degree of screening inherent to the program selection process, this study has shown that these participants are not only academically successful but also show statistically higher levels of academic development. Together, this study has provided education abroad outcomes assessment research with a measurable construct of academic development and an instrument with which to demonstrate student learning outcomes.

The findings also clearly and powerfully illustrate the extent to which self-selection bias is an inherent dilemma to this and similar approaches to education abroad outcomes assessment research (Chieffo & Griffiths, 2003; Dwyer, 2004; Hadis, 2005b; Rundstrom Williams, 2005). The analyses showed that students in the embedded courses had significantly higher pre-test and post-test mean scores for global citizenship overall and at each of the three dimensions. These students also have consistently higher mean scores for each dimension of academic development. Similarly, the enrollment analysis demonstrated that the education abroad population is not representative of the Penn State student body, differing along key demographic and personal characteristics. This study

and the enrollment analysis both point to the reality that self-selection is a methodological roadblock in education abroad outcomes assessment research and that future research should explore additional research methodologies and statistical measures to account for student self-selection.

The study also examined how characteristics internal to students in the embedded sample moderate individual gains in global citizenship and academic development. In particular, this study analyzed gender, previous education abroad experience, and language proficiency. The results showed that none of the three moderated significant changes in student learning outcomes for either global citizenship or academic development. Program duration also did not significantly influence learning outcomes within embedded programs. Because these moderating variables were only examined among the embedded sample, the results may be a reflection of the limited sample size and as such, warrant caution. Also, the results showed that even among these moderating variables, a self-selection bias was present and potentially influential at driving outcomes. In other outcomes assessment research focusing on related forms of education abroad programming, these variables have been shown to be more influential in predicting student learning outcomes (Anderson, 2003; Martin & Rohrlich, 1991; Gerner et al., 1992; Martin, 1987).

Enrollment Analysis

The enrollment analysis has attempted to challenge, dispute, and/or confirm widely-held assumptions about contemporary education abroad programming. In doing so, the study has yielded insightful new perspectives on the education abroad student profile and how participation has varied over time and across program type/duration. The analysis of the data attempted to thoroughly represent and interpret emerging or commonly misunderstood patterns of enrollment by addressing four key research questions methodically. The findings revealed education abroad remains mostly a privileged opportunity for a skewed population of Penn State students. Major enrollment trends within the population have remained relatively stable over the past four years and show no evidence of dramatic shifts in favor of short-term programs. The data indicate embedded programs appeal significantly to traditionally underrepresented and unacknowledged populations. Finally, there is no convincing evidence of a GPA benefit associated with education abroad in this population. Rather, the findings suggest that assessing GPA change may be an imprecise measure of the academic impact of studying abroad. To the degree that the findings of the enrollment analysis are generalizable, they point to several defining positions on contemporary U.S. education abroad.

1. *We're not mainstream yet!* Once the purview of a small number of departments, education abroad has become part of the mission of many U.S. universities and colleges (Braskamp, 2008; Ehrlich, 2000; Green, Luu, & Burris, 2008; Holland & Meeropol, 2006; Langran, Langran, & Ozment, 2009). Education abroad has taken on greater prominence in undergraduate education, and its purposes are aligning with the goals of higher education. Although the number of U.S. students receiving academic credit through education abroad has increased dramatically in recent decades, the total participation rate represents only approximately 1% of all enrolled undergraduate students (IIE, 2008). Just 1.75% of all Penn State students currently study abroad in spite of ongoing and concerted efforts to integrate international education opportunities into the undergraduate experience (UOGP, 2009). Therefore, this study should serve as a reminder that as education abroad continues to move from the margins toward the center of the undergraduate curriculum, renewed and continued efforts are needed to identify and provide access to traditionally underrepresented populations.

2. *Program diversity equals greater population diversity*. Traditionally, underrepresented populations are present in education abroad programming but are concentrated in embedded programs. These programs disproportionately attract students from populations less likely to study abroad for a summer, semester, or academic year, including minority students, first-generation students, non-traditional students, males, and students from particular academic backgrounds. It stands to reason that embedded programming is an effective pathway to raise the participation rates of underrepresented populations in education abroad. Embedded programs are not only engaging institutional faculty in new ways, these programs are also offering international educational opportunities to students who have been traditionally underrepresented. An institutional portfolio of education abroad programs focusing on a narrow range of offerings may in fact target particular populations of students at the expense of others. To further integrate international education opportunities into the undergraduate experience and to diversify the populations that study abroad will require both identifying institutional barriers that limit participation and developing diverse programming to respond to the needs of traditionally underrepresented populations. In other words, a diverse portfolio of offerings that includes embedded programs can boost diverse student participation and strengthen institutional efforts toward internationalizing the undergraduate curriculum (Marcum, 2001; Obst, Bhandari, & Witherell, 2007; Picard, Bernardino, & Ehigiator, 2009).

3. *A myth? Financial need impacts program choice.* The data suggest there is some truth to claims that students are selecting embedded programs because they have limited financial resources that prevent longer stays abroad. Indeed, students participating on embedded programs have significantly higher financial need than students participating on semester and summer programs, but the differences are small. While financial need may be an obstacle, financial need alone does not appear to be the driving factor behind students' decisions on how long to study abroad. Rather, this study suggests that students' decisions about when, what, and where to study abroad are very complex and are not driven primarily by financial need.

4. *Good students are good students, here and there.* Education abroad programs of all variations enroll academically successful students. These students have developed the academic skills, knowledge, and attitudes necessary to enable them to excel at their home institutions. It is these strengths that support them in their academic pursuits while abroad. Good students at home are just as likely to be good students while abroad. Moreover, there is no evidence to support claims of a significant GPA benefit or any other major changes in academic performance associated with studying abroad. Rather, the findings of this study suggest the value of using the GPA as an indicator of student performance in outcomes assessment research may be an imprecise measure (Hadis, 2005b). Academic development as understood and measured within the quasi-experimental study presents an appealing alternative.

5. *Institutional culture matters.* Penn State's network of 24 campuses provides diversity in the student profile while offering one consistent, centralized education abroad structure. Although Penn State is one university, its many campuses reflect the array of colleges and universities in the nation. University Park is a large, research-focused campus, and the Abington, Altoona, Berks, Erie-Behrend, and Harrisburg campuses are all four-year, comprehensive colleges. The other campuses resemble smaller two-year colleges, enrolling mostly commuter students. Not surprisingly, the enrollment patterns between these campuses are significantly different, especially with regard to embedded programs. At the smaller campuses, over 92% of those who study abroad enroll in embedded programs compared with 72% of those on the comprehensive campuses. At University Park, just 23% choose embedded programs. Overall, these findings clearly suggest institutional and campus culture—whether intentional or not—has a strong impact on program choice.

In recent years many educators have begrudged the popularity of short-term education abroad programs (Kinsella et al., 2002; Van Engen, 2000; Woolf, 2007). Yet, this analysis confirms

embedded programs differ from summer programs in their appeal to a clientele of undergraduate students, one that is more diverse and inclusive of traditionally underrepresented populations. To be sure, the availability of these programs is making education abroad a more democratic undertaking in which more students, regardless of race, financial need, or background are able to participate. These programs also offer students new pathways to internationalize their undergraduate education and faculty members with new pedagogical approaches toward internationalizing the curriculum. The challenge will now be to harness the implications of these findings to better shape institutional policies and professional standards with the goal to maximize undergraduate education abroad.

In particular, national datasets on education abroad statistics need to be expanded to include additional demographic and programming categories and analyses. IIE's Open Doors report, though the most widely referenced national dataset on international educational mobility, is limited to major demographic categories and offers very little in-depth analysis on how enrollment trends vary by program type. The report does not systematically differentiate embedded programs, grouping them instead with other programs of less than eight weeks. Similarly, there is no national data readily available which shows the degree to which financial need impacts participation and program choice. In fact, there is very little data available that can be used to refute or confirm many widespread assumptions about embedded programming.

This study has also provided evidence that shows that financial need influences to some degree students' program decisions—those with high financial need opt for embedded programs. Although there are national financial aid and scholarship schemes that support education abroad opportunities, albeit not enough, many target semester or academic-year programs (Gutierrez, Auerbach, & Bhandari, 2009). Ironically, semester-length programs enroll students with the least amount of financial need, at least according to this study. Institutional forms of assistance also prioritize semester-length programs and rarely support embedded programming. Moreover, award decisions are such that students receive notification of funding only after being asked to commit to studying abroad. This can result in funding being given to students who are likely financially able to study abroad without this additional assistance. As such, greater institutional efforts are needed to reshape student aid policies to more equitably respond to student needs across all program types and to develop related mechanisms which remove financial obstacles to studying abroad.

The findings also suggest that as student interest in embedded education abroad programming increases, so will the demand for program options that offer geographic and academic breadth. Having just a few programs in limited academic areas or in targeted languages may no longer be

sufficient. Institutional standards will be needed in order to manage the growth and quality of these programs (Gutierrez, Auerbach, & Bhandari, 2009). For many students, embedded programs provide what is likely to be their only international opportunity while an undergraduate. As such, program standards, such as those recently released by the Forum on Education Abroad (Forum, 2010), are essential for ensuring these international experiences are intellectually rewarding and interculturally transformative.

There is also a need for more faculty involvement and leadership in education abroad and a need for faculty to make greater efforts to integrate international education components into course requirements in order increase diverse student participation in education abroad (Green, Luu, & Burris, 2008; Gutierrez, Auerbach, & Bhandari, 2009; Heisel & Stableski, 2009; NSSE, 2007). As the data show, embedded programs appeal to a different student demographic, many of whom would otherwise not be studying abroad. Institutional policies are needed to recognize, encourage, and provide support to faculty members to ensure the success of these programs, and moreover, to acknowledge their accomplishments, perhaps in the promotion and tenure process (O'Hara, 2009).

V RECOMMENDATIONS FOR FUTURE RESEARCH

The findings of this study provide new evidence that should inform education abroad outcomes assessment research and spur subsequent scholarship in this area. In particular, the findings point to key areas for additional research that would both complement the findings of this study and further the understanding of student learning outcomes of undergraduate education abroad programming. In addition to the areas already mentioned, the following are recommendations for future research:

Global Citizenship & Academic Development Scales

Overall, the scale development process yielded reliable and valid scales to measure the complexity of global citizenship and academic development. However, social responsibility proved to be a dimension of global citizenship with a less clearly defined structure. Its three dimensions (global justice and disparities, altruism and empathy, global interconnectedness and personal responsibility) were collapsed due to poor reliability. The initial sub-dimensions for academic self-concept (expanding academic interests, learning from others) were also collapsed due to poor reliability. Two of the three sub-dimensions for academic self-efficacy merged to form a hybrid sub-

dimension of choice & effort. Future research that refines the development of the two scales is needed.

For the purposes of this study, global citizenship has been understood as a multi-dimensional construct that hinges on the interrelated dimensions of social responsibility, global competence and global civic engagement. Although the literature suggests that it is the presence of each of these dimensions that leads to global citizenship, further research is needed to examine the theoretical relationship between these dimensions, specifically research examining if these dimensions interact hierarchically.

Quasi-Experimental Study

The findings of the quasi-experimental study provide new evidence on the extent to which embedded education abroad experiences enhance academic development and lead to gains in global citizenship. The results suggest important areas for additional research.

1. Transformative learning hinges on the intensity of experiences abroad to serve as disorienting dilemmas for students. Given that the international travel component of embedded courses is usually less than two weeks and the in-country programming is typically highly-structured (Spencer & Tuma, 2002), the intensity of the international experiences abroad may not be disorienting for these highly self-selected students. As such, further research is needed to examine the TEAM across differing program models (i.e., service learning programs) and durations (i.e., summer, semester, and full-year).

2. This study has focused exclusively on embedded programs, for which the international travel component is typically just a week or two long (Peterson et al., 2007). As explained, an increasing number of institutions are strategically relying on embedded education programming in their efforts to graduate global citizens (Green, Luu, & Burris, 2008). As such, this study has sought to provide evidence of the success of such institutional policy decisions. The results suggest that this study should be replicated and expanded to include larger samples, but also point to the need for comparative investigation of learning outcomes by program duration, particularly of how outcomes vary by embedded, summer, semester and academic-year students. In doing so, future research could also examine how much self-selection varies by these four programming durations. New knowledge in this area may better inform higher education policies and strategies with regard to all forms of undergraduate education abroad.

3. Using a quasi-experimental approach, this study collected data at pre-test and post-test intervals. Data was collected within one month of the start of the residential course and again near the end of the academic semester. Related research utilizing pre- and post-test data collection methods have suggested that to administer the post-test so soon after the international experience may reveal little significant change in students' intercultural sensitivity (Medina-Lopez-Portillo, 2004). These studies suggest that students need time to reflect on their international and intercultural experiences and to have opportunities to exercise their potentially expanded world views upon reentry. As such, future research is needed to explore assessing global citizenship and academic development at a later or third point in time. Such research could investigate the extent to which development is an ongoing process. Moreover, future research is needed to investigate the extent to which learning outcomes are retained over time (Anderson et al., 2006). In this study, students in the embedded courses demonstrated significant changes in global civic engagement. Future research might investigate the whether and how likely this is a lasting change in students' identity and behavior.

4. Although this study has focused on embedded programming, more research is needed to investigate programming variation within such programs. Because embedded programs are most often discipline specific and are designed to engage students in primary learning opportunities, the range in embedded programming is extremely diverse. For example, there are traveling seminars that visit important museums and national landmarks and service learning programs that engage students in community-based programming. Some embedded programs have students stay together in local hotels while others have students living individually with local families. Future research is needed to understand how particular variations in programming yield different learning outcomes. Is it merely the experience of studying abroad itself meaningful for these students or do specific elements within programming have added educative value? For example, do students who engage in international service learning projects return with significantly higher levels of global civic engagement as has been suggested in related research (Moely et al., 2002a; Moely et al., 2002b)? New knowledge in this regard will support faculty in developing intentional programming that aligns closely and with added precision for realizing course objectives.

5. While a control group typically provides protection against selection-maturation as a threat to internal validity (Krathwohl, 2004, Sutton, Miller, & Rubin, 2007), the results of this study confirm that students enrolling in embedded programs are a self-selected population of highly

achieving and successful students. As this study has shown, students come to these courses with already higher levels of global citizenship and academic development. It is not unreasonable to assume that their natural rate of development or growth in this regard would surpass that of students in the match courses. Singleton and Straits (2005) have suggested that precaution when attributing outcomes solely to the treatment variable, or in studies such as this, the education abroad program cannot be solely credited for student learning outcomes. This is a particularly troublesome methodological limitation in education abroad outcomes research (Sutton, Miller, & Rubin, 2007). Future research that more actively controls for this issue is greatly needed. Perhaps one approach would be to determine an instrumental variable that predicts participation but does not predict growth. Hadis (2005a) has proposed that data derived from participants' own retrospective reflections might serve as a means to isolate these effects of program impact versus maturation.

Enrollment Analysis

Although an institution-specific study, the enrollment analysis has contributed new knowledge to understand the education abroad student profile and has provided needed empirical evidence on emerging and commonly misunderstood patterns of enrollment. The study and its findings draw attention to numerous related ideas for additional research that would both complement these findings and further the understanding of current trends in U.S. education abroad programming.

1. Due to the anonymous student coding system used in this analysis, it was not possible to detect those students within the dataset who had studied abroad more than once. Although the University Office of Global Programs reported that 682 students within the four-year population, or roughly 8%, had studied abroad once before on a Penn State program, these students were not identified in the dataset. Although there is some research that suggests participants on summer and embedded programs have a statistically higher likelihood of subsequently studying abroad again (Chieffo & Griffiths, 2009; Lewis & Niesenbaum, 2005a), perhaps for longer durations, it would be useful for eventual promotion and outreach strategy to have empirical evidence on the degree to which this occurs and the patterns in which it does. Similarly, does an education abroad experience during high school predict the likelihood of "serial participation" as an undergraduate (Chieffo & Griffiths, 2003)?

2. The enrollment analysis findings suggest that assessing GPA change over time may be an imprecise measure of academic performance. As this analysis used cumulative GPA data, future

research could explore using earned GPA per semester or pursue an alternative measure of student learning. Academic development as understood and measured within the quasi-experimental study presents an appealing alternative to understanding student learning outcomes.

3. The analysis did not examine variation in enrollment patterns by program model (i.e., island, direct enrollment, exchange program, etc.). It would be useful to understand how particular student demographics are represented in various program models. For example, are traditionally underrepresented populations disproportionately drawn to the perceived safety of island programs? Does financial need correlate with participation on low-cost exchange programs? Such information would be useful for promotion and outreach efforts as well as to better enable practitioners to develop student service programming that aligns more appropriately with student needs.

4. More research is needed to understand the complex interaction of financial need and education abroad programming. While this enrollment analysis has reported on the demonstrated need of those who have actually participated in an education abroad program, there is little evidence which documents whether cost is a real or perceived barrier for those with higher levels of financial need. In other words, there is little knowledge of the decisions made by those who do not study abroad.

5. The enrollment analysis consistently revealed evidence to confirm that participants of embedded programs reflect a more diverse student profile. More evidence is needed to determine if this is indeed a pattern reflected at other institutions. As well, additional evidence is needed to understand why these programs disproportionately appeal to traditionally underrepresented populations. Specifically, perceptions of risk, institutional effect, perceived faculty interaction, and cost are important areas for further investigation.

6. Community colleges educate many traditionally underrepresented populations in education abroad, including minority students, first-generation students, and students with financial need (Green, 2006). In recent years, community colleges have achieved considerable success with providing students with international education opportunities, and 75% of these institutions see short-term programs as their primary growth area (Gutierrez, Auerbach, & Bhandari, 2009). The enrollment analysis found that students attending smaller Penn State campuses, which are often likened to community colleges, are disproportionately represented in embedded programs. It would be useful to conduct further research on community college students who study abroad, how they have fared in their international experiences, how such experiences have influenced their educational

progress, and what approaches community college-based international educators have taken toward working effectively with this diverse population of students (Raby & Sawadogo, 2005).

7. NAFSA's Committee on Underrepresentation in Education Abroad has identified other underrepresented populations that were not considered in this analysis (Lebold et al., 2005). These populations include student athletes, gay, lesbian, bisexual and transgendered students, and students with disabilities (McEvoy, 2005). These populations, like others, have been largely unacknowledged in national datasets. Further identification of these populations is needed and necessary for eventual advocacy and recognition.

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APPENDIX A: PRE-TEST QUESTIONNAIRE[1]

Dear Student:

Thank you for participating in this survey. This study is being conducted to help us understand the extent to which students develop academically and personally when taking a variety of courses at Penn State. Your truthful and complete response to this survey will provide us with valuable information that will be used to continuously improve Penn State's quality of teaching and learning. After completing the survey, please place it inside the pre-labeled envelop.

Please be assured that your responses are confidential. Once all surveys are compiled, your instructor will close the envelope and mail it to Penn State's Tourism Research Lab. We will only use your ID and course number information to compare your responses in the middle and at the end of the semester.

Best regards, *Duarte Morais, Principal Investigator*

SECTION A – *Course Information*

1. *Last four digits of Student ID number*: ___ ___ ___ ___

2. Course code and number: _____ _____
   Letter code number

3. What are your reasons for taking this course? *(Check all that apply)*

   ☐ Major requirement ☐ Major elective ☐ Career interest
   ☐ Minor/related field ☐ Personal interest ☐ Other: _____

4. How did you learn about this course? *(Check all that apply)*

   ☐ Faculty member ☐ Academic adviser ☐ Graduate assistant
   ☐ Friend ☐ Parent ☐ Advertisement
   ☐ Promotional event ☐ Other: _____

5. Please rate your level of interest in the subject matter of this course.

   Very low ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ Very high

6. Does this course include an international travel component? ☐ Yes ☐ No *(If no, skip to Section B)*

7. Will you be participating in the international travel? ☐ Yes ☐ No

8. Please list the destination country or countries: _____

9. Please specify the number of days that you will be traveling abroad? ____ days

[1] Format slightly edited to accommodate appendix parameters.

SECTION B – *Global Citizenship*

Please indicate how strongly you agree or disagree with the following statements regarding your views of the world. Please check the circle that best describes your present thinking.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I think that most people around the world get what they are entitled to have.	①	②	③	④	⑤
2.	Developed nations have the obligation to make incomes around the world as equitable as possible.	①	②	③	④	⑤
3.	It is OK if some people in the world have more opportunities than others.	①	②	③	④	⑤
4.	I think that people around the world get the rewards and punishments they deserve.	①	②	③	④	⑤
5.	The needs of the worlds' most fragile people are more pressing than my own.	①	②	③	④	⑤
6.	Americans should emulate the more sustainable and equitable behaviors of other developed counties.	①	②	③	④	⑤
7.	In times of scarcity, it is sometimes necessary to use force against others to get what you need.	①	②	③	④	⑤
8.	I think that many people around the world are poor because they do not work hard enough.	①	②	③	④	⑤
9.	I do not feel responsible for the world's inequities and problems.	①	②	③	④	⑤
10.	The world is generally a fair place.	①	②	③	④	⑤
11.	No one country or group of people should dominate and exploit others in the world.	①	②	③	④	⑤
12.	I respect and am concerned with the rights of all people, globally.	①	②	③	④	⑤
13.	I think of my life in terms of giving back to the global society.	①	②	③	④	⑤

Please indicate how strongly you agree or disagree with the following statements regarding your abilities to function in the world. Please check the circle that best describes your present thinking.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I am confident that I can thrive in any culture or country.	①	②	③	④	⑤
2.	I unconsciously adapt my behavior and mannerisms when I am interacting with people of other cultures.	①	②	③	④	⑤
3.	I often adapt my communication style to other people's cultural background.	①	②	③	④	⑤
4.	I know how to develop a plan to help mitigate a global environmental or social problem.	①	②	③	④	⑤
5.	I am able to communicate in different ways with people from different cultures.	①	②	③	④	⑤
6.	I am informed of current issues that impact international relations.	①	②	③	④	⑤
7.	I know several ways in which I can make a difference on some of this world's most worrisome problems.	①	②	③	④	⑤
8.	I am fluent in more than one language.	①	②	③	④	⑤
9.	I am able to get other people to care about global problems that concern me.	①	②	③	④	⑤
10.	I welcome working with people who have different cultural values from me.	①	②	③	④	⑤
11.	I feel comfortable expressing my views regarding a pressing global problem in front of a group of people.	①	②	③	④	⑤
12.	I am able to mediate interactions between people of different cultures by helping them understand each others' values and practices.	①	②	③	④	⑤
13.	I am able to write an opinion letter to a local media source expressing my concerns over global inequities and issues.	①	②	③	④	⑤

Please indicate how likely it is that you will be doing each of the following actions by checking the circle that best corresponds with your present thinking.		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	If at all possible, I will always buy fair-trade or locally grown products and brands.	①	②	③	④	⑤
2.	Over the next 6 months, I will contact a newspaper or radio to express my concerns about global environmental, social or political problems.	①	②	③	④	⑤
3.	Over the next 6 months, I plan to do volunteer work to help individuals and communities abroad.	①	②	③	④	⑤
4.	Over the next 6 months, I will express my views about international politics on a website, blog, or chat-room.	①	②	③	④	⑤
5.	Over the next 6 months, I will participate in a walk, dance, run or bike ride in support of a global cause.	①	②	③	④	⑤
6.	Over the next 6 months, I will sign an email or written petition seeking to help individuals or communities abroad.	①	②	③	④	⑤
7.	Over the next 6 months, I will volunteer my time working to help individuals or communities abroad.	①	②	③	④	⑤
8.	Over the next 6 months, I plan to get involved with a global humanitarian organization or project.	①	②	③	④	⑤
9.	I will deliberately buy brands and products that are known to be good stewards of marginalized people and places.	①	②	③	④	⑤
10.	Over the next 6 months, I will contact or visit someone in government to seek public action on global issues and concerns.	①	②	③	④	⑤
11.	Over the next 6 months, I plan to help international people who are in difficulty.	①	②	③	④	⑤
12.	I will boycott brands or products that are known to harm marginalized global people and places.	①	②	③	④	⑤
13.	Over the next 6 months, I plan to get involved in a program that addresses the global environmental crisis.	①	②	③	④	⑤
14.	Over the next 6 months, I will display and/or wear badges/stickers/signs that promote a more just and equitable world.	①	②	③	④	⑤
15.	Over the next 6 months, I will work informally with a group toward solving a global humanitarian problem.	①	②	③	④	⑤
16.	Over the next 6 months, I will participate in a campus forum, live music or theatre performance or other event where young people express their views about global problems.	①	②	③	④	⑤
17.	Over the next 6 months, I will pay a membership or make a cash donation to a global charity.	①	②	③	④	⑤

SECTION C – *Academic Development*

Please indicate how often you actually do the following by checking the circle that best corresponds with your present thinking.

		Never	Seldom	Sometimes	Often	Always
1.	I show interest in a number of academic topics.	①	②	③	④	⑤
2.	I engage in productive academic debate with my peers.	①	②	③	④	⑤
3.	I read widely on a number of academic topics.	①	②	③	④	⑤
4.	I participate in class discussions to improve my understanding the academic content.	①	②	③	④	⑤
5.	I interact with my peers in solving problems in academic work.	①	②	③	④	⑤
6.	I think about solving problems, with which others have difficulty, because I'm interested.	①	②	③	④	⑤
7.	I pay attention to professors in order to learn as much as I can.	①	②	③	④	⑤
8.	I have confidence in my academic ability to achieve the most that I can.	①	②	③	④	⑤
9.	I seek to learn from others with more knowledge than I have.	①	②	③	④	⑤
10.	I relate new ideas to those in other topics or other courses whenever possible.	①	②	③	④	⑤
11.	I ask questions of others to improve my understanding of the academic content.	①	②	③	④	⑤
12.	I focus my reading on a narrow area of academic interest.	①	②	③	④	⑤

Please indicate how often you actually do the following by checking the circle that best corresponds with your present thinking.

		Never	Seldom	Sometimes	Often	Always
1.	Seek out to understand for myself the meaning of what I am expected to learn.	①	②	③	④	⑤
2.	Evaluate my performance against the academic standards I set myself.	①	②	③	④	⑤
3.	Do my best to reach the academic standards that I set for myself.	①	②	③	④	⑤
4.	Find conditions for studying which allow me to get on with my work easily.	①	②	③	④	⑤
5.	Make strong demands on myself to achieve in academic work.	①	②	③	④	⑤
6.	Prefer to be told precisely what to do in essays or other assignments.	①	②	③	④	⑤
7.	Read the recommended background material.	①	②	③	④	⑤
8.	Make a strong effort to achieve as high as I can in academic work.	①	②	③	④	⑤
9.	When I am given an academic task or assignment, I make a strong effort to find the right answers.	①	②	③	④	⑤
10.	Take personal responsibility for my academic learning.	①	②	③	④	⑤
11.	I do not give up easily when I am faced with a difficult assignment.	①	②	③	④	⑤
12.	Try different strategies to achieve my academic goals when I have difficulties.	①	②	③	④	⑤
13.	Ask for help if I don't understand.	①	②	③	④	⑤
14.	Set realistic but challenging academic goals.	①	②	③	④	⑤
15.	Learn only the information I have to know to pass.	①	②	③	④	⑤
16.	Study effectively on my own in independent/ private study.	①	②	③	④	⑤
17.	Set the highest standards in academic work which I believe I can achieve.	①	②	③	④	⑤
18.	Manage my work load to meet coursework deadlines.	①	②	③	④	⑤
19.	When I have difficulties reaching my goals, I make a renewed effort to ensure I achieve them.	①	②	③	④	⑤
20.	Seek out information when necessary and take steps to master it.	①	②	③	④	⑤

SECTION D – *Participant Information*

1. What is your sex? ☐ Male ☐ Female

2. In what year were you born? 19 __ __

3. What is your current semester standing? *(Please check only one)*

   ☐ Freshman ☐ Sophomore ☐ Junior
   ☐ Senior ☐ Graduate student

4. What is your ethnic background? *(Please check only one)*

   ☐ African American ☐ Native American ☐ Caucasian/White
   ☐ Asian/Pacific Islander ☐ Hispanic ☐ other: _____

5. How many times have you traveled internationally before? ____ times

6. Have you ever studied abroad before? ☐ Yes ☐ No

7. Please list which languages, if any, you can speak other than English.

   Lang.1: _____ Proficiency level: ☐ Beginner ☐ Intermediate ☐ Advanced
   Lang.2: _____ Proficiency level: ☐ Beginner ☐ Intermediate ☐ Advanced
   Lang.3: _____ Proficiency level: ☐ Beginner ☐ Intermediate ☐ Advanced
   Lang.4: _____ Proficiency level: ☐ Beginner ☐ Intermediate ☐ Advanced

Thank you very much for your help with this study!

APPENDIX B: POST-TEST QUESTIONNAIRE[2]

Dear Student:

Thank you for completing the mid-semester evaluation a few weeks ago and for agreeing to take this second survey. As you may remember, we are trying to understand the extent to which students develop academically and personally while at Penn State. Your truthful and complete response to this survey will provide us with valuable information. Please be assured that your responses are confidential. Once all surveys are completed, your instructor will close the envelop and mail it to Penn State's Tourism Research Lab. We will only use your ID and course number to merge your answers to the two surveys. Thank you.

Best regards, *Duarte Morais, Principal Investigator*

SECTION A – *Academic Development*

Please indicate how often you actually do the following by checking the circle that best corresponds with your present thinking.

		Never	Seldom	Sometimes	Often	Always
1.	I show interest in a number of academic topics.	①	②	③	④	⑤
2.	I engage in productive academic debate with my peers.	①	②	③	④	⑤
3.	I read widely on a number of academic topics.	①	②	③	④	⑤
4.	I participate in class discussions to improve my understanding the academic content.	①	②	③	④	⑤
5.	I interact with my peers in solving problems in academic work.	①	②	③	④	⑤
6.	I think about solving problems, with which others have difficulty, because I'm interested.	①	②	③	④	⑤
7.	I pay attention to professors in order to learn as much as I can.	①	②	③	④	⑤
8.	I have confidence in my academic ability to achieve the best that is possible with my ability.	①	②	③	④	⑤
9.	I seek to learn from others with more knowledge than I have.	①	②	③	④	⑤
10.	I relate new ideas to those in other topics or other courses whenever possible.	①	②	③	④	⑤
11.	I ask questions of others to improve my understanding of the academic content.	①	②	③	④	⑤
12.	I show interest in several academic topics.	①	②	③	④	⑤

[2] Format edited slightly to accommodate appendix parameters.

Please indicate how often you actually do the following by checking the circle that best corresponds with your present thinking.

		Never	Seldom	Sometimes	Often	Always
1.	See out to understand for myself the meaning of what I am expected to learn.	①	②	③	④	⑤
2.	Evaluate my performance against the academic standards I set myself.	①	②	③	④	⑤
3.	Do my best to reach the academic standards that I set for myself.	①	②	③	④	⑤
4.	Find conditions for studying which allow me to get on with my work easily.	①	②	③	④	⑤
5.	Make strong demands on myself to achieve in academic work.	①	②	③	④	⑤
6.	Prefer to be told precisely what to do in essays or other assignments.	①	②	③	④	⑤
7.	Read the recommended background material.	①	②	③	④	⑤
8.	Make a strong effort to achieve as high as I can in academic work.	①	②	③	④	⑤
9.	When I am given an academic task or assignment, I make a strong effort to find the right answers.	①	②	③	④	⑤
10.	Take personal responsibility for my academic learning.	①	②	③	④	⑤
11.	I do not give up easily when I am faced with a difficult assignment.	①	②	③	④	⑤
12.	Try different strategies to achieve my academic goals when I have difficulties.	①	②	③	④	⑤
13.	Ask for help if I don't understand.	①	②	③	④	⑤
14.	Set realistic but challenging academic goals.	①	②	③	④	⑤
15.	Learn only the information I have to know to pass.	①	②	③	④	⑤
16.	Study effectively on my own in independent/ private study.	①	②	③	④	⑤
17.	Set the highest standards in academic work which I believe I can achieve.	①	②	③	④	⑤
18.	Manage my work load to meet coursework deadlines.	①	②	③	④	⑤
19.	When I have difficulties reaching my goals, I make a renewed effort to ensure I achieve them.	①	②	③	④	⑤
20.	Seek out information when necessary and take steps to master it.	①	②	③	④	⑤

SECTION B – *Global Citizenship*

Please indicate how strongly you agree or disagree with the following statements regarding your views of the world. Please check the circle that best describes your present thinking.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I think that most people around the world get what they are entitled to have.	①	②	③	④	⑤
2.	Developed nations have the obligation to make incomes around the world as equitable as possible.	①	②	③	④	⑤
3.	It is OK if some people in this world have more opportunities than others.	①	②	③	④	⑤
4.	I think that people around the world get the rewards and punishments they deserve.	①	②	③	④	⑤
5.	The needs of the worlds' most fragile people are more pressing than my own.	①	②	③	④	⑤
6.	Americans should emulate the more sustainable and equitable behaviors of other developed counties.	①	②	③	④	⑤
7.	In times of scarcity, it is sometimes necessary to use force against others to get what you need.	①	②	③	④	⑤
8.	I feel that many people around the world are poor because they do not work hard enough.	①	②	③	④	⑤
9.	I do not feel responsible for the world's inequities and problems.	①	②	③	④	⑤
10.	The world is generally a fair place.	①	②	③	④	⑤
11.	No one country or group of people should dominate and exploit others in this world.	①	②	③	④	⑤
12.	I respect and am concerned with the rights of all people, globally.	①	②	③	④	⑤
13.	I think of my life in terms of giving back to the global society.	①	②	③	④	⑤

Please indicate how strongly you agree or disagree with the following statements regarding your abilities to function in the world. Please check the circle that best describes your present thinking.		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I am confident that I can thrive in any culture or country.	①	②	③	④	⑤
2.	I unconsciously adapt my behavior and mannerisms when I am interacting with people of other cultures.	①	②	③	④	⑤
3.	I often adapt my communication style to other people's cultural background.	①	②	③	④	⑤
4.	I know how to develop a plan to help mitigate a global environmental or social problem.	①	②	③	④	⑤
5.	I am able to communicate in different ways with people from different cultures.	①	②	③	④	⑤
6.	I am informed of current issues that impact international relations.	①	②	③	④	⑤
7.	I know several ways in which I can make a difference on some of this world's most worrisome problems.	①	②	③	④	⑤
8.	I am fluent in more than one language.	①	②	③	④	⑤
9.	I am able to get other people to care about global problems that concern me.	①	②	③	④	⑤
10.	I welcome working with people who have different cultural values from me.	①	②	③	④	⑤
11.	I feel comfortable expressing my views regarding a pressing global problem in front of a group of people.	①	②	③	④	⑤
12.	I am able to mediate interactions between people of different cultures by helping them understand each others' values and practices.	①	②	③	④	⑤
13.	I am able to write an opinion letter to a local media source expressing my concerns over global inequities and issues.	①	②	③	④	⑤

Please indicate how likely it is that you will be doing each of the following actions by checking the circle that best corresponds with your present thinking.		*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*
1.	If at all possible, I will always buy fair-trade or locally grown products and brands.	①	②	③	④	⑤
2.	Over the next 6 months, I will contact a newspaper or radio to express my concerns about global environmental, social or political problems.	①	②	③	④	⑤
3.	Over the next 6 months, I plan to do volunteer work to help individuals and communities abroad.	①	②	③	④	⑤
4.	Over the next 6 months, I will express my views about international politics on a website, blog, or chat-room.	①	②	③	④	⑤
5.	Over the next 6 months, I will participate in a walk, dance, run or bike ride in support of a global cause.	①	②	③	④	⑤
6.	Over the next 6 months, I will sign an email or written petition seeking to help individuals or communities abroad.	①	②	③	④	⑤
7.	Over the next 6 months, I will volunteer my time working to help individuals or communities abroad.	①	②	③	④	⑤
8.	Over the next 6 months, I plan to get involved with a global humanitarian organization or project.	①	②	③	④	⑤
9.	I will deliberately buy brands and products that are known to be good stewards of marginalized people and places.	①	②	③	④	⑤
10.	Over the next 6 months, I will contact or visit someone in government to seek public action on global issues and concerns.	①	②	③	④	⑤
11.	Over the next 6 months, I plan to help international people who are in difficulty.	①	②	③	④	⑤
12.	I will boycott brands or products that are known to harm marginalized global people and places.	①	②	③	④	⑤
13.	Over the next 6 months, I plan to get involved in a program that addresses the global environmental crisis.	①	②	③	④	⑤
14.	Over the next 6 months, I will display and/or wear badges/stickers/signs that promote a more just and equitable world.	①	②	③	④	⑤
15.	Over the next 6 months, I will work informally with a group toward solving a global humanitarian problem.	①	②	③	④	⑤
16.	Over the next 6 months, I will participate in a campus forum, live music or theatre performance or other event where young people express their views about global problems.	①	②	③	④	⑤
17.	Over the next 6 months, I will pay a membership or make a cash donation to a global charity.	①	②	③	④	⑤

SECTION C – *Course Evaluation*

Please read each question carefully and report how you feel about this course by checking the circle that best corresponds with your current thinking.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I have found the course to be intellectually challenging and stimulating.	①	②	③	④	⑤
2.	I have learned something which you consider valuable.	①	②	③	④	⑤
3.	My interest in the subject has increased as a consequence of this course.	①	②	③	④	⑤
4.	I have learned and understood the subject matter in this course.	①	②	③	④	⑤
5.	The course has adequately addressed current developments in the field.	①	②	③	④	⑤
6.	Readings and assignments have contributed to my developing an appreciation for the subject.	①	②	③	④	⑤

		Very Poor	Poor	Moderate	Good	Very Good
7.	How does the course instructor(s) compare with other instructors you have had at Penn State?	①	②	③	④	⑤
8.	How does this course compare with other courses you have had at Penn State?	①	②	③	④	⑤

9. Please rate your level of interest in the subject matter of this course.

   Very low ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ Very high

10. What grade do you expect in this course? *(Check only one)*

    ☐ A ☐ B ☐ C ☐ D ☐ F

SECTION D – *Course Information*

10. Last four digits of Student ID number: ___ ___ ___ ___

11. Course code and number: _____ _____
    Letter code Number

Thank you very much for your help with this study!

Informed Consent Form for Social Science Research
The Pennsylvania State University

Title of Project: **Measuring Academic Learning and Global Citizenship**

Principal Investigator: *Duarte B. Morais, Recreation Park and Tourism Management*
801 Ford Building, Tourism Research Lab
University Park, PA 16802, dmorais@psu.edu, 814-865-5614

Other Investigator(s): *Christine Buzinde and Anthony Ogden*

1. **Purpose of the Study:** The purpose of this research is to understand how students develop academically and personally as a result of taking select courses at Penn State.
2. **Procedures to be followed:** You will be asked to answer a 7-page survey twice: once in the middle of the semester and a second time two weeks before the end of the semester.
3. **Duration/Time:** It will take you about 15 minutes to complete the survey.
4. **Statement of Confidentiality:** Your participation in this research is confidential. The data will be stored and secured at *801 Ford* in a *locked/password protected computer* file. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared.
5. **Right to Ask Questions:** Please contact Duarte B. Morais by phone at (814) 865-5614, or via email at dmorais@psu.edu with questions or concerns about this study.
6. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would receive otherwise.

You must be 18 years of age or older to consent to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this form for your records.

_____ _____
Participant Signature Date

_____ _____
Person Obtaining Consent Date

Global Citizenship Scale

- What does it mean to be a global citizen?
- Is global citizenship compatible with the traditional goals of US higher education?
- What are the challenges in designing and implementing education abroad programs to meet the goals of fostering global citizenship?
- Are we achieving our goals of graduating global citizens? How do we know?
- What are the untold stories of education abroad that confirm or challenge the goals of developing global citizenship?

In spite of the wide acceptance of the idea of *global citizenship*, there is neither agreement about what it really means nor is there any consensus on how to measure it. At its most basic, however, global citizenship can be seen as a moral and ethical outlook that influences and guides engagement with national and global communities. For the purposes of this study, global citizenship will be understood and measured as a multi-dimensional construct that entails three interrelated domains:

A. ***Social Responsibility*** is defined as the perceived level of interdependence and social concern to others, to society and to the environment.

B. ***Global Competence*** consists of having an open mind while actively seeking to understand cultural norms and expectations of others, leveraging this gained knowledge to interact, communicate and work effectively outside one's environment.

C. ***Global Civic Engagement*** refers to demonstrated action and/or predisposition toward recognizing local, state, national and global community issues and responding through actions such as volunteerism, political activism and community participation.

What happens when one of these dimensions is missing?

Ex. *The Coffee Shop Intellectual* -One can have a sense of social responsibility and the competence needed to effectively engage the world, but does little beyond merely discussing issues.

Ex. *The Naïve Idealist* -One can have a sense of social responsibility and be fully engaged in local and global issues, but lacks the competency needed to engage effectively in the world.

Ex. *The Imperialist* -One can have the competence to effectively engage in the world and be actively doing so, but lacks an ethic of genuine concern for others.

What is missing in each of these examples?

Expert Ratings of Global Citizenship Scale Item Pool

Instructions:

Please draw upon your international expertise, your knowledge of student development through education abroad, and the aforementioned dimensions of global citizenship to help us select and adapt appropriate measurements for this new measurement scale.

Please use the following procedures to rank the learning outcomes:

Step One: Do a cursory read through all the listed sub-scales.

Step Two: Re-read each subscale and reflect on whether you think it measures social responsibility, global competence or global civic engagement. Record your opinion by checking the appropriate box below each sub-scale.

Step Three: Make editing suggestions to the items themselves for clarity, taking into consideration that the scale is aimed at undergraduate students.

Step Four: Provide additional comments in the space provided at the end of each subscale. Please return the subscale items pages. We will use your feedback to refine the scale. Provide your email contact if you would like updates on the development of this instrument.

Global Citizenship Scale Item Pool

Sub-Scale One.
To be rated on a 7pt. scale, from strongly disagree to strongly agree.

1.	In the next 6 months, I plan to do volunteer work to help individuals and communities abroad.
2.	In the next 6 months, I plan to participate in a global humanitarian organization.
3.	I am committed to making a positive difference in global disparities and injustice.
4.	In the next 6 months, I plan to help international peoples who are in difficulty.
5.	In the next 6 months, I plan to get involved in programs to help control the global environmental crisis.
6.	In the next 6 months, I plan to participate in a global action program.

This sub-scale measures (please choose one):

☐ Social Responsibility ☐ Global Competence ☐ Global Civic Engagement

Comments:

Sub-Scale Two.
To be rated on a 7pt. scale, from strongly disagree to strongly agree.

1.	I think that people around the world get what they are entitled to have.
2.	I think that people around the world earn the rewards and punishments they get.
3.	I feel that people and communities around the world who meet with misfortune and poverty have brought it on themselves.
4.	I feel that the world is a fair place.

This sub-scale measures (please choose one):

☐ Social Responsibility ☐ Global Competence ☐ Global Civic Engagement

Comments:

Sub-Scale Three.
To be rated on a 7pt. scale, from strongly negative to strongly positive.

1.	We should strive to make incomes around the world as equal as possible.
2.	Global equality should be our ideal.
3.	It's OK if some people in this world have more of a chance in life than others.
4.	It's probably a good thing that certain countries are at the top and others are at the bottom.
5.	In getting what you want, it is sometimes necessary to use force against other countries/people.
6.	Some groups of people and countries are simply inferior to others.
7.	No one country or group of people should dominate and exploit others in this world.

This sub-scale measures (please choose one):

☐ Social Responsibility ☐ Global Competence ☐ Global Civic Engagement

Comments:

Sub-Scale Four.
To be rated on a 7pt. scale, from definitely cannot to definitely can.

1.	I am capable of creating a plan to help mitigate a global environmental issue.
2.	I am able to get other people to care about a global problem that worries me.
3.	I am capable of expressing my views about global problems in front of a group of people.
4.	I am capable of writing an opinion letter/paper to a local newspaper or other media expressing my concerns over global inequities and issues.

This sub-scale measures (please choose one):

☐ Social Responsibility ☐ Global Competence ☐ Global Civic Engagement

Comments:

Sub-Scale Five.
To be rated on a 7pt. scale, from not at all likely to very likely.

1.	When you graduate, how likely is it that you will contact or visit someone in government to seek public action on global issues and concerns?
2.	When you graduate, how likely is it that you will contact a newspaper, radio, website to express your concerns about international environmental, social or political problems?
3.	When you graduate, how likely is it that you will sign an email or written petition seeking to help individuals or communities abroad?
4.	Over the next 6 months, how likely is it that you will express your views about international politics on a website, blog, or chat-room?
5.	Over the next 6 months, how likely is it that you will participate in a campus forum, live music performance or other event where young people express their views about global problems?

This sub-scale measures (please choose one):

☐ Social Responsibility ☐ Global Competence ☐ Global Civic Engagement

Comments:

Sub-Scale Six.
To be rated on a 7pt. scale, from not involvement to highly involved.

1.	My level of involvement in humanitarian aid and human rights organizations over the last 12 months was..
2.	Over the last 12 months, my level of involvement in environmental protection and animal rights organizations was…
3.	Over the last 12 months, my level of involvement in international organizations that provide help to the needy was…
4.	Over the last 12 months, my level of involvement in organizations that seek ethnic, racial or national origin equity was…

This sub-scale measures (please choose one):

☐ Social Responsibility ☐ Global Competence ☐ Global Civic Engagement

Comments:

Sub-Scale Seven.
To be rated on a 7pt. scale, from not at all likely to very likely.

1.	Over the next 12 months I will work informally with a group to solve a global humanitarian problem.
2.	Over the next 12 months I will volunteer my time working to help individuals or communities abroad.
3.	Over the next 12 months I will pay a membership or make a cash donation to a global charity.
4.	Over the next 12 months I will participate in a walk, dance, run or bike ride for a global cause.
5.	Over the next 12 months I will sign an email or petition for a global cause.
6.	Over the next 12 months I will pay a membership fee or make a cash donation to a global charity.

This sub-scale measures (please choose one):

☐ Social Responsibility ☐ Global Competence ☐ Global Civic Engagement

Comments:

Sub-Scale Eight.
To be rated on a 7pt. scale, from not at all likely to very likely.

1.	I will contact politicians and public officials to encourage global equity.
2.	I will display and/or wear badges/stickers/signs that promote a more just and equitable world.
3.	I will take part in lawful demonstrations for global issues.
4.	I will boycott brands or products that are known to harm marginalized global people and places.
5.	I will deliberately buy brands and products that are known to be good stewards of marginalized people and places.

This sub-scale measures (please choose one):

☐ Social Responsibility ☐ Global Competence ☐ Global Civic Engagement

Comments:

Sub-Scale Nine.
To be rated on a 7pt. scale, from strongly disagree to strongly agree.

1.	I see no reason to pay attention to what happens in other countries.
2.	Differences between people are skin-deep.
3.	International issues are not very important to me.
4.	It is important to understand and respect the values and preferences of people from other cultures.

This sub-scale measures (please choose one):

☐ Social Responsibility ☐ Global Competence ☐ Global Civic Engagement

Comments:

Sub-Scale Ten.
To be rated on a 7pt. scale, from strongly disagree to strongly agree.

1.	I often adapt my communication style to other people's cultural background.
2.	I am able to mediate interactions between people of different cultures by helping them understand each others' values and practices.
3.	I unconsciously adapt my behavior and mannerisms when I am interacting with people of other cultures.
4.	I am able to communicate in different ways with people from different cultures.

This sub-scale measures (please choose one):

☐ Social Responsibility ☐ Global Competence ☐ Global Civic Engagement

Comments:

Sub-Scale Eleven.
To be rated on a 7pt. scale, from strongly disagree to strongly agree.

1.	I think of my life in terms of giving back to the global society.
2.	I am committed to respecting and advancing the rights of others, globally.
3.	I think of myself as a member of the global community.
4.	Volunteering for global causes is not an important priority for me.
5.	I am sensitive to marginalized and oppressed people.

This sub-scale measures (please choose one):

☐ Social Responsibility ☐ Global Competence ☐ Global Civic Engagement

Comments:

Sub-Scale Twelve.
To be rated on a 7pt. scale, from strongly disagree to strongly agree.

1.	I am fluent in more than one language.
2.	I am informed of current issues that impact international relations.
3.	I am confident that I can thrive in any culture or country.
4.	I welcome working with people who have different cultural values from me.

This sub-scale measures (please choose one):

☐ Social Responsibility ☐ Global Competence ☐ Global Civic Engagement

Comments:

ANTHONY C. OGDEN

EDUCATION:

1997 — Master of International & Intercultural Management (M.I.I.M)
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Concentration: International Education & Training

1989 — Bachelor of Arts, Psychology (B.A)
Berea College, Berea, Kentucky
Major Subjects: Human Learning & Behavior, Interpersonal Conflict Resolution

RECENT EMPLOYMENT HISTORY:

2003-2007 — Education Abroad (EA), The Pennsylvania State University
Associate Director
State College, Pennsylvania, USA

1998-2003 — The Institute for the International Education of Students (IES), Tokyo Center
Center Director & Faculty Member
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RECENT PUBLICATIONS

- "A Brief Overview of Lifelong Learning in Japan." *The Language Teacher*, September, 2010. (Forthcoming)
- "The Diversification of Geographic Locations." A History of Study Abroad: 1965 to Present, Stephen DePaul and William W. Hoffa, Editors. (Forthcoming)
- "The View from the Veranda: Understanding Today's Colonial Student." *Frontiers: The Interdisciplinary Journal of Education Abroad*, Winter 2007-2008.
- "Defining Terms for Use in Designing Outcomes Projects." A Guide to Outcomes Assessment in Education Abroad, Mell C. Bolen, Editor, 2007.
- "Ethnographic Inquiry: Reframing the Learning Core of Education Abroad." *Frontiers: The Interdisciplinary Journal of Education Abroad*, Fall 2006.
- "Overseas Program Management" NAFSA's Guide to Education Abroad for Advisers and Administrators, 3rd Edition, 2005.

CONFERENCE PRESENTATIONS (2007~):

2008 "Global Civic Engagement: Theory, Research and Application in International Education" PaCIE: Pennsylvania Council for International Education, Annual Conference.

2008 "The Decolonization of Study Abroad" The Forum on Education Abroad, Annual Conference.

2007 "Changes in English Language Education in Korea and Japan and the Impact on U.S. Study Abroad" NAFSA: Association of International Educators, Region VIII Conference.

2007 "The Forum on Education Abroad: Outcomes Assessment Projects" NAFSA: Association of International Educators, Annual Conference.

2007 "Experiential Learning in Asia: New Directions in Study Abroad Learning" [Invited Feature Speaker] Association for Asian Studies, Annual Conference.

2007 "The Forum Glossary Project" The Forum on Education Abroad, Annual Conference.