ABSTRACT

Title of Document: EXAMINING THE SOCIALLY RESPONSIBLE LEADERSHIP DEVELOPMENT OUTCOMES OF STUDY ABROAD EXPERIENCES FOR COLLEGE SENIORS

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This thesis explored the leadership development outcomes of study abroad experiences for college seniors. This is the first study attempting to identify the link between involvement in study abroad, a growing trend in higher education, and student leadership development, a value of higher education institutions. Data from the 2009 Multi-Institutional Study of Leadership was used in this study, specifically the sample of over 31,000 seniors from 99 four-year institutions. The hypothesis that study abroad contributes significantly to student leadership development was tested using hierarchical regression statistical analysis.

This study’s model explained 21% of the variance in the omnibus measure of the Socially Responsible Leadership Scale (SRLS), with pre-college leadership development factors as the only independent variable with significant contribution. A post-hoc analysis found that there was a small but significant difference on the omnibus SRLS between those who did, and those who did not, study abroad. This study’s findings offer implications for higher education practitioners and research.
EXAMINING THE SOCIALLY RESPONSIBLE LEADERSHIP DEVELOPMENT OUTCOMES OF STUDY ABROAD EXPERIENCES FOR COLLEGE SENIORS

By

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Thesis submitted to the Faculty of the Graduate School of the University of Maryland, College Park, in partial fulfillment of the requirements for the degree of Master of Arts 2010

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Dedication

To satisfy our wanderlust.
Acknowledgements

The first acknowledgement on this page, and in my heart, is toward my family. Thanks to my mother, for encouraging my exploration of faraway places and new territory both physically and mentally; to my father, for exemplifying dedication and unwavering purpose and love; and to my brother, for role modeling your way of seeing possibility beyond the status quo. Each of you is an inspiration to me.

I also wish to share my appreciation for the members of this committee. Dr. Susan R. Komives has discovered the best blend of challenge, and support, for me and I am forever grateful for the resources she has shared with me these past two years, but even more so for her mentorship and belief in our work. I am grateful for Dr. Stephen J. Quaye’s deep thoughts and his wonderful ways of being accessible to his students. Thanks to Dr. Deborah Grandner, for bringing aspects of this work to life, and encouraging me that this work would contribute significantly to practice. And a final thanks to Gretchen Metzelaars, who in the early stages challenged me to reframe my thoughts around this topic, which ultimately delivered a stronger result.

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Chapter I: Introduction

Context for the Study

Nearly a quarter of a million students studied abroad in 2006-07, an increase of nearly 150% since 1996-97 (CAS, 2009; Gardner & Witherell, 2008; Lewin, 2009). The *Open Doors 2008: Report on International Educational Exchange* reported nearly 20 institutions that sent more than four out of five students abroad during their undergraduate years (Bhandari, 2008). Among those U.S. institutions, in 2008 New York University was among those institutions sending more than half of its students abroad, “reporting that it gave academic credit for study abroad to 3,034 of its students…” (Gardner & Witherell, 2008, p. 10), which translates to more than 65% of NYU’s undergraduate population. These numbers indicate a growing trend of more students studying abroad in higher education than have done so previously.

Higher education has seen a globalization trend since its “…international character and traditions offer a means to bridge the separate ethnic and nationalist feelings in an increasingly interdependent world” (Wagner & Schnitzer, 1991, p. 286). The increasing interdependence of the world is felt in the university far beyond faculty and students in the fields of international language, policy, and business; Teichler (2004) proposed that globalization has permeated throughout higher education. In the past globalization was considered in the context of foreign language, anthropology, and international relations, but is now considered relevant to all fields of study. Teichler also noted that “…academically trained people enjoy new experiences, they can easily cope with uncertainties and surprises because they are more likely to understand them, and how they have acquired new knowledge and insight” (p. 13). Higher education
practitioners must recognize that the globalization trend affects all aspects of how, and what, students must learn (Paige, 2004).

In reaction to the globalization trend, higher education is called upon to play an ever-increasing role in creating the global citizens necessary to operate effectively in a global society (Lewin, 2009). Higher education has historically existed as a means to educate the next generation of leaders, as well as a forum to share and promote universal knowledge (Perkin, 1997). For the next generation of leaders to be effective, students must be progressively more aware of and engaged in intercultural learning, identified to be one of the outcomes of the increasing globalization of higher education (American Association of Colleges & Universities, 2007; Cohen, Paige, Shively, Emert, & Hoff, 2004).

Intercultural competence is among the learning outcomes of study abroad (Deardorff, 2006; LaBrack, 1999; Medina-Lopez-Portillo, 2004; Paige, 2004), and is also identified in the global leadership literature (Alon & Higgins, 2005; Oddou, Mendenhall, & Ritchie, 2000; Osland, 2008). The American Association of Colleges & Universities (2007) claimed intercultural competence to be one “essential learning outcome” (p. 3) of liberal higher education. Intercultural competence is expected to continue to be essential as the globalization of higher education trend continues. Cohen, Paige, Sively, Emert, and Hoff (2004) wrote that, “Learning outcomes of internationalization would ideally include the enhanced ability to communicate in one or more foreign languages, as well as heightened intercultural skills, all with the goal of enabling students to interact effectively with individuals from other cultures” (p. 104). It is vital for students to develop
intercultural competency skills, such as those just mentioned, during their higher education for graduates to be able to demonstrate leadership in a global context.

*Research Design and Problem Statement*

Individuals today are required to function effectively not just in their local environment, but in a globalized environment due to advances in technology that make the global accessible to each individual (Friedman, 2007). Since universities historically exist to develop the next generation of leaders (Perkin, 1997), it follows that graduates in every field of work or study will be expected to demonstrate leadership skills in this global context to be successful in their chosen careers. A trend has been identified that increasingly more students are studying abroad (CAS, 2009; Gardner & Witherell, 2008, Lewin, 2009). Little is known about the effect or contribution of study abroad experiences, particularly how study abroad experiences influence student leadership development; although, it is known that study abroad contributes to the development of intercultural competence (Deardorff, 2006; LaBrack, 1999; Medina-Lopez-Portillo, 2004; Paige, 2004). Intercultural competence has been identified as a skill necessary for global leadership, which is an extrapolation and more universal form of leadership (Alon & Higgins, 2005; Oddou, Mendenhall, & Ritchie, 2000; Osland, 2008). There seems to be a gap in the literature between study abroad contributing to the development of intercultural competence, a skill necessary for global leadership, and study abroad contributing to the development of leadership in a global context for students. This study aims to bridge that gap by quantitatively determining if study abroad experiences contribute to student leadership development based upon data collected by the 2009
Multi-Institutional Study of Leadership (MSL). Using a hierarchical regression to analyze the data, this study addresses the following research question:

Do study abroad experiences contribute significantly to the variance in the Socially Responsible Leadership Scale beyond other on-campus experiences for college seniors?

One can hypothesize that international experiences will expose students to unfamiliar environments and boost their ability to handle intercultural interactions in the future. As intercultural competence has been identified as a necessary skill for global leadership, which is a more universal form of leadership, then study abroad is a potentially beneficial tool to help universities achieve their goals of creating globally competent leaders.

Examining outcomes in the context of a single institution or a few study abroad experiences limits the generalizability of those outcomes to any other study abroad program or institution. By using data from the 99 four-year institutions that participated in the 2009 MSL, it is more likely that any findings can be applied broadly to higher education institutions and study abroad programs. The broad generalizability of results from this study has the potential to benefit many institutions of higher education and their practitioners.

Finally, this study will only examine self-identified seniors of four-year institutions of higher education. This selectivity is due to the fact that seniors are the most likely to have had the opportunity to study abroad since they have been in higher education for a longer period of time than have first-, second-, or third-year students. In addition, since a majority of study abroad experiences occur in the student’s junior year,
the difference between their pre- and post-test on the leadership scale in the MSL instrument is most likely to show a difference in outcomes between their entrance to higher education and their return from study abroad.

**Significance of the Study**

As stated previously, globalization requires competence in intercultural skills as a global leader; therefore, intercultural skills are desirable to develop in students. However, in light of the trend of globalization, a valid point raised by the Netherlands Organisation for International Cooperation in Higher Education that “An abundance of reasons is given in terms of benefits for society, the economy and international political relations, but not enough is known or said about how internationalization improves the education students receive” (Wagner & Schnitzer, 1991, p. 281). The benefits of globalization may be positive but the impact on students’ educational experience is largely unknown. Where there are potential benefits in education from globalization, there are also potential negative impacts (Teichler, 2004, p. 6). This study aims to add to the understanding of how study abroad, one potential aspect of a student’s educational experience, may impact student learning outcomes, particularly the outcome related to students’ leadership development in a global context.

This study also contributes significantly to knowledge about the demographics of those students who study abroad. The trend of increasingly more students in higher education studying abroad, whether by choice or by university regulation, warrants that higher education practitioners have a better idea of who is going abroad, and who is not going abroad. Knowing who is likely to study abroad allows practitioners to develop programs to suit those students’ needs. Knowing who does not study abroad offers
insight into what might be holding some students back from those opportunities, and if those barriers can be changed to open the opportunity to more students. The demographic information gathered from this national study about who, from four-year institutions, is studying abroad will be an important contribution of this research.

**Definition of Key Terms**

This study brings together a number of ambiguous concepts in an attempt to bring more understanding to each and bridge gaps in existing literature. Given that these terms are defined in various ways by many scholars, it is important to offer definitions of how the terms were defined in the context of this work.

**Globalization.** Globalization is the trend toward a single system of operation in a unified, shared context. To become globalized means to adopt a universal meaning, to share a singular belief, or operate within a common environment shared by all members. In a globalized environment, national borders disintegrate in favor of an integrated environment (Teichler, 2004).

**Internationalization.** Activities that cross national borders are international by nature. In the context of higher education, that might mean students and faculty are physically traveling, there are exchange agreements between universities, or there is simply a transfer of knowledge across borders (Teichler, 2004).

**Study Abroad.** In the context of this study, study abroad remains broadly defined due to reliance on the MSL instrument, which simply asks respondents categorically whether they have, or have not, studied abroad. In general, study abroad is rarely defined in the literature. For the purpose of this study, study abroad refers to a period of time spent away from the home institution, attending higher education in a country other

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than that of the home institution, while still earning academic credit. Typically this is done in the junior year of study for a semester, though study abroad can be as short as a few weeks, or last for an entire academic year. It is possible, due to the broad nature of the question, that students who participated in international alternative break experiences, where they performed service during their academic break, would also term that study abroad though credit is not typically awarded for those experiences. The definition will be limited only in that this study will focus on a solely United States perspective by considering only the national data collected in the 2009 MSL.

**Student Leadership Development.** This study relies on the values-based social change model of leadership development (SCM) to define student leadership development (HERI, 1996). With the seven C’s of Consciousness of Self, Congruence, Commitment, Collaboration, Common Purpose, Controversy with Civility, and Citizenship guiding the leadership development process, this model aligns with widely accepted perspectives on global citizenship. The SCM also implies individual self-efficacy, since it implies that all individuals are involved in the process of the leadership task and that leadership then does not lie in positional titles but in all individuals. The value of Change then fits into the model as the assumed outcome of the leadership process – enacting positive social change for the betterment of oneself and those around one, the betterment of society. Rather than looking at each individual C as it was tested in the MSL instrument, this study will measure students’ leadership development using the omnibus measure of all C’s combined.

The SCM guides this study’s approach to leadership development in students, but many other definitions have evolved historically to guide many leadership attitudes and
development programs. Care should be taken when applying the findings of this study to programs that ascribe to other models of leadership development or definitions of leadership. Many interpretations of leadership exist because the study of leadership pertains to many fields; but as Mendenhall (2008) suggests, “Because leadership is studied by a variety of disciplines, each with its own preferred paradigms, worldview, and methodology, the opportunity for a broader understanding of the phenomenon exists” (p. 10). The contributions of each field and their interpretation of leadership, especially between various cultures, give potential to the emergence of a universal concept of leadership – of a global leadership concept.

**Global Leadership.** As mentioned above, global leadership remains vague, as does a universal definition of leadership. Until a more focused definition exists for leadership across various cultural contexts, and ultimately one that is acceptable worldwide regardless of cultural context, global leadership will remain a culturally-bound and ambiguous term. Given the above definition of globalization, the definition for the purposes of this study is that global leadership is leadership enacted in global context.

**Student involvement.** Astin (1999) defined student involvement as “…the amount of physical and psychological energy that the student devotes to the academic experience” (p. 518). In the context of this study, student involvement and student engagement are interchangeable terms, and both indicate the student’s level of commitment to both classroom, and perhaps even more so out-of-classroom, experiences during their undergraduate years. Out-of-classroom experiences include clubs, organizations, athletics, honor societies, work study, and study abroad.
Intercultural Competence. For this study, intercultural competence is defined to be the ability to effectively and appropriately interact between and among cultures. This is derived from the definitions used in Deardorff’s (2006) study attempting to define intercultural competence. One way in which intercultural competence can be achieved is through intercultural situations, wherein an individual is exposed to and interacts with cultures other than one’s own culture. To achieve intercultural competence one must also have knowledge of oneself as a cultural being.

Student Leadership Development

History

Historical perspectives on leadership described it as a born trait held by some and not others; possible to hone and develop, but impossible to learn (Burns, 1978). In contrast, current philosophies, theories, and research propose that all individuals have the capacity for leadership, since leadership is a set of skills that can be developed and used in any role, not only in positional roles (Kezar, Carducci, & Contreras-McGavin, 2006; Northouse, 2007). As leadership scholar Heifetz voiced in an interview in 2007,

Leadership is most usefully viewed as an activity rather than as a personality characteristic or trait. In order to practice the various activities of leadership one needs a whole set of diagnostic skills as well as a whole set of action skills. Both sets of diagnostic skills and action skills can be taught. (Langdameo, p. 1)

Heifetz went on to say in the same interview that skills are translated to actions best when they are learned experientially. Thus, it would seem that Heifetz promotes the learning experience of student involvement as necessary in the development of leadership skills.
Kouzes and Posner (2007) agree that leadership, as a set of skills, can be learned through experience. Kouzes and Posner (2007) wrote that “…any skill can be strengthened, honed, and enhanced, given the motivation and desire, along with practice and feedback, role model, and coaching” (p. 340). This can be interpreted to mean that through intentional developmental experiences, the skills associated with leadership can be built up and shaped.

University administration began to be more intentional about providing opportunities for student leadership development in the 1960s and 1970s. This shift was a direct result of the unprecedented numbers of students who filled universities as a result of the GI Bill, as well as the culture of challenging social norms that arose. To better prepare students as change agents, programs for leadership began to be more prevalent on campuses (Roberts, 2007).

The *Handbook for Student Leadership Programs* (2006) has defined student leadership programs as “…any program or activity intentionally designed with the purpose of developing or enhancing the leadership skills, knowledge or abilities of college students” (Haber, 2006, p. 29). This definition is inclusive of leadership coursework, such as a major, minor or certificate programs, as well as leadership programs such as a conference, workshop series or individual workshops, retreats, outdoor education and other such planned programs.

Especially in the 21st century, one has the ability to reach out to the world through technological advances, which can make social change, in a sense, simpler (Friedman, 2007). An individual can easily become well-educated and fully supportive of causes that are oceans away from their daily lives, and thus make a significant difference. One
can make some advances alone, but to truly impact the world one must work collaboratively and inspire a common purpose among many citizens (HERI, 1996). This is the integrative, relational model of leadership proposed by the ensemble in the SCM (HERI, 1996; Komives, Wagner, & Associates, 2009).

*The Social Change Model of Leadership Development*

The SCM is a process-oriented model, with the inherent belief that all individuals are collaboratively involved in the process of the leadership task and that leadership then does not lie in positional titles, but in all individuals. This model “approaches leadership as a purposeful, collaborative, values-based process that results in positive social change” (Komives, Wagner, & Associates, 2009, p. xii). The model contains the seven C’s or values: Consciousness of Self, Congruence, Commitment, Collaboration, Common Purpose, Controversy with Civility, and Citizenship (HERI, 1996). These values are displayed in Figure 1.1, and described in Figure 1.2. The value of Change then fits into the model as the assumed outcome of the leadership process – enacting positive social change for the betterment of oneself and the betterment of society.
The community and society level of the SCM hold the value of citizenship, beyond both the individual level and the group level. Citizenship “is the value that responsibly connects the individual and the leadership group to the larger community or society. At a more basic human level, citizenship is about…the value of caring about others” (HERI, 1996, p. 65).
## The Seven C’s: The Critical Values of the Social Change Model

<table>
<thead>
<tr>
<th><strong>INDIVIDUAL VALUES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consciousness of Self</strong></td>
</tr>
<tr>
<td><strong>Congruence</strong></td>
</tr>
<tr>
<td><strong>Commitment</strong></td>
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</tbody>
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<table>
<thead>
<tr>
<th><strong>GROUP VALUES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Collaboration</strong></td>
</tr>
<tr>
<td><strong>Common Purpose</strong></td>
</tr>
<tr>
<td><strong>Controversy with Civility</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>COMMUNITY VALUES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Citizenship</strong></td>
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*Since it is a key assumption of the SCM that the ultimate goal of leadership is positive social change, "change" is considered to be at the "hub" of the SCM.*

| **Change** | Believing in the importance of making a better world and a better society for oneself and others. Believing that individuals, groups and communities have the ability to work together to make that change. |

*(Adapted from Higher Education Research Institute, 1996, p. 21; Tyree, 1998, p. 176; and Astin, 1996, p. 6-7)*

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**Figure 1.2 Values of the social change model of leadership development (The seven C’s of change)**

The guidebook for the SCM (HERI, 1996) declares that the value of citizenship is “an especially relevant value for leadership development in a higher education setting, since most colleges and universities explicitly espouse educational goals for students such as ‘social responsibility’ and ‘preparation for citizenship’ in their catalogues and mission statements” (HERI, 1996, p. 66). Universities claim to be developing socially responsible individuals (Hovland, 2009) and, historically, future generations of leaders (Perkin, 1997). Considering that the undergraduates of today will provide future leadership, instilling the value of citizenship is increasingly important to create effective leadership.

*Global Leadership*

*Global Leadership versus Leadership*

To be effective, leadership must take into account the regional and cultural differences of environment and players. But this accounting for cultural difference is taken to an extreme when thinking about leadership in a global context. According to Mendenhall (2008), some scholars believe that the same leadership competencies remain necessary regardless of the scope of the environment. But applying those leadership competencies in a global context “places such high demands on the deployment of those competencies that for all intents and purposes the skill level and deployment demands render the phenomenon so different in degree” (Mendenhall, 2008, p. 16). Essentially the global context of enacting leadership adds such complexity to the practice that it requires an altogether different degree of skill.

Additionally, given the intensity that a global environment presents for leadership, the challenge prompts leaders to have a transformational experience. This results in “new
worldviews, mindsets, perceptual acumen and perspectives that simply do not exist within people who have not gone through such a series of experiences in a global context,” claims Mendenhall (2008, p. 17). Individuals who have had the transformational experience of enacting leadership globally are thought to be demonstrating leadership that is different in kind, as Mendenhall puts it, from simply leadership. Since global leadership seems to differ from traditional conceptions of leadership in both type, and degree, of competency, it has earned its place as a unique field of inquiry.

An Emerging Field of Study

The study of global leadership and efforts toward developing a universal concept began in earnest as the study of international business emerged during the mid-twentieth century. The trend of international business boomed after World War II, and as business managers began to interact and operate more in international environments, a realization came about that an understanding of other cultures was vital to success in an international context (Mendenhall, 2008). Achieving a better understanding of global leadership in a business context is important because, according to Morrison (2000):

Globalization – whether at the level of the industry, business, or individual leader – is all about overcoming national differences and embracing the best practices from around the world…Needed is a global model that can be applied throughout the world, a model that transcends and integrates national schemes and becomes an essential tool for hiring, training, and retaining the leaders of tomorrow. (p. 120)
Morrison goes on to declare that in a business sense, a global model of leadership is imperative because companies will increasingly rely upon global leaders to do business. But he qualifies the demand for a global model by saying that the model should be moderated by elements of leadership that are idiosyncratic to the specific culture. In essence, a universal model will not do justice to the nuances of global leadership; the model must be flexible enough to adapt to the differences in global leadership found in different cultures worldwide.

As of now, some competencies to global leadership have been defined, however even these definitions vary according to scholar and context of the research. One of these competencies is the concept that cultural intelligence is required for global leadership (Alon & Higgins, 2005). As Alon and Higgins (2005) wrote, “There is a growing recognition that multiple intelligences are required for global leadership” (p. 503). These include rational intelligence, or IQ, as well as emotional intelligence and cultural intelligence – cultural intelligence in both the organizational and the geographical senses. While the capacity for cultural intelligence is necessary as a global leader, in the opinion of Alon and Higgins (2005), the development of this trait is not seen as a priority in business, where physical logistics and profits often make the cut above developing intercultural capacities. There seems to be room for higher education to more effectively educate global leaders and support the growth of cultural intelligence, especially since “Cultural intelligence education should also attempt to instill motivation in the student to continue learning, experimenting, and trying” (Alon & Higgins, 2005, p. 508).

Developing a model of global leadership. To develop a global model of leadership, Morrison (2000) makes the suggestion to first consider domestic (i.e., U.S.-
centered) leadership literature as a primary informant. Domestic leadership literature as the primary informant should be balanced by considering contingency theory.

Contingency theory suggests that successful leadership is determined as much by the immediate environment in which it is enacted, as it is by the players in that environment (Child, 1981). And finally, Morrison (2000) claims that cross-cultural management literature has an important and undeniable place in developing a global leadership model, since culture is inherent to any such interaction. Considering these three concepts would potentially develop a model of global leadership that is rooted in the existing scholarly leadership knowledge that the United States has championed since the mid-twentieth century, when empirical leadership studies became widespread. Toward the latter part of the twentieth century, Japanese and European scholars also began to study leadership, which began a trend toward a more global mentality on leadership (Mendenhall, 2008).

Any model of global leadership developed would need to have the flexibility to incorporate the needs of the various environments worldwide in which leadership is enacted, while taking interactions between different cultures into consideration.

**Global Leadership via Intercultural Competence**

As the globalization trend continues, students are likely to see themselves more as citizens and leaders in a global context and feel the need to develop their intercultural competence as a result. Komives, Lucas, and McMahon (2007) assert that roles both as a leader and as a participant require intercultural competence in the pervasive global context. The authors suggest that, “Awareness of how such aspects of diversity such as sex, race, ethnicity, age, sexual identity, religion, ability, or socioeconomic status influence our own behavior and that of others in groups is a step toward being an
effective relational leader” (p. 167). All of the mentioned aspects of identity, and their relation to culture, are contributing factors of developing leadership in a global context. The more aware and competent the leader is of being inclusive and collaborative, the more truly global the leadership can be.

To achieve any intercultural competency, one must first attempt to have an understanding of culture – a complex, socially constructed, multi-generational concept. As one collaborative group determined, “Culture refers to values, beliefs, attitudes, preferences, customs, learning styles, communication styles, history/historical interpretations, achievements/accomplishments, technology, the arts, literature, etc. - the sum total of what a particular group of people has created together, share, and transmits” (Paige, Cohen, Kappler, Chi, & Lassegard, 2007, p. 43). The highly inclusive statement signifies that to teach students intercultural competence is a daunting task. Lovett (2004) concurs that teaching students to be aware of others is simply not enough; educators must help students see the world – events, social problems, trends, and more – through another’s perspective.

**Developing students’ intercultural competence.** “Given the opportunity for more intercultural experience and the chance to reflect upon it, one’s worldview is likely to shift in the direction of new ways of perceiving and making sense out of cultural difference” (Paige, 2004, p. 82). Paige was accurate in saying that an individual’s worldview, one’s perspective of culture and the relationships between, makes major shifts along the dimensions of intercultural understanding when studying abroad. Lovett (2004) echoed Paige’s sentiment by saying, “The challenge today is not simply to teach students to ‘know the other.’ It is to help students see the world and its wonders and
problems through the eyes and minds of others, to explore alternative interpretations of events and trends” (p. 40).

Student Involvement

Once one understands more now about the capacities of global leadership, one can move to thinking about how to develop this conception of leadership. One possible method is through student involvement, since involvement in intentional leadership programs has show to be an effective method to develop leadership skills. Astin (1999) defined student involvement as “…the amount of physical and psychological energy that the student devotes to the academic experience” (p. 518). In his theory of student involvement, Astin proposes that to achieve the desired outcomes of a curriculum, students must be compelled to devote sufficient time and energy to their involvement with the experience. Being physically present is not sufficient for development, but students must be willing to mentally engage with the content to be truly involved. According to Astin, there is a direct positive link between level of involvement and level of development. He says that “From the standpoint of the educator, the most important hypothesis in the theory is that the effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement” (p. 529), that is, policy and practices should be compelling enough to elicit student involvement to be effective. Astin applies his theory of involvement to environments beyond the traditional classroom. Involvement is related to academic courses, but also co-curricular programs and any intervention in the college setting in which certain learning outcomes are desired.
Involvement experiences can include such experiences as committee work, group projects for class, or being a member of a sports team or musical group. These types of involvement are not considered to be intentional leadership programs, though the 2006 MSL results showed that simply the act of involvement can certainly produce leadership development outcomes (Dugan & Komives, 2007). Little work has been done to connect involvement in the form of study abroad experiences to leadership outcomes, as is intended here in this study, but given Dugan’s and Komives’ broad description of involvement and collegiate experiences that lead to leadership development in students, it seems that study abroad would qualify. While the leadership benefits may not be stated, the intercultural learning outcomes of study abroad contribute to leadership development in a global context.

**Study Abroad**

As this study proposes, students in higher education might gain the necessary experience to operate in a global context through an experience such as study abroad. While students are generally able to study abroad at any point in their undergraduate years, Teichler and Stuebe (1991) noted that the now-traditional junior year abroad of American students originated in the 1950s (p. 327). Even before that, study abroad existed in various forms. Study abroad originated from the European concept of the Grand Tour (Goodwin & Nacht, 1988), a far-reaching trip taken by graduating seniors to become acculturated before returning home to settle down. The purpose of study abroad today is somewhat similar, but has become a part of the undergraduate experience rather than a post-graduation adventure.
Learning Outcomes

Study abroad can expose students to new experiences, new people, and new cultures that may prompt students to question their framework of interpretation and consider outside perspectives. Through that process they are gaining the benefits of “cultural enrichment, social skills and personality development” as learning outcomes, according to Teichler and Stuebe (1991, p. 332). The outcomes related to culture can be measured using the Intercultural Development Inventory, based upon the Developmental Model of Intercultural Sensitivity (MDB Group, Inc., n.d.). More broad learning outcomes can be defined using Perry’s (1970) Scheme of Intellectual Development, which also recognizes that “people can move forward toward relativistic thinking or revert to ethnocentric postures” (LaBrack, 1999, p. 249). During study abroad the participant may gain more developed, relativistic understanding, or the shock may cause them to revert to more ethnocentric thinking.

Regarding study abroad, the Council for the Advancement of Standards (CAS) (2009) indicates that “The student learning and development outcome domains…are: knowledge acquisition, integration, construction, and application; cognitive complexity; intrapersonal development; interpersonal development; humanitarianism and civic engagement; practice competence” (p. 218). LaBrack (1999) wrote about the “…qualities which we insist upon from our students headed overseas: patience, sensitivity, the ability to respond thoughtfully and nonargumentatively to hostile questions, flexibility, and the ability to compromise” (p. 274).

The possibility for student development is why student services for study abroad – ranging from the capabilities of the director, to the curriculum, to the pre- and post-trip
programs – must be supportive of the student learning experience to foster positive outcomes. To achieve a positive experience overall, study abroad must be integrated into undergraduate student learning; and pervasive throughout students’ experiences rather than isolated to a single semester or a few weeks, as the need for pre-departure and re-entry programs has been identified. In this way, “study abroad provides not only the possibility of encountering the world, but of encountering oneself – particularly one’s national identity – in a context that may stimulate new questions and new formulations of that self” (Dolby, 2004, p. 150). Building a student’s identity in an intercultural, international context holds ever-increasing importance as higher education continues to move toward stronger internationalization. As Wagner and Schnitzer (1991) wrote, “…higher education’s international character and traditions offer a means to bridge the separate ethnic and nationalist feelings in an increasingly interdependent world” (p. 286). As the world shrinks due to advances in technology, transportation and communication, it is imperative that higher education be tuned in to increasingly intercultural themes and be preparing students to be effective in a truly global environment. The benefits of study abroad have the potential to offer great value to the development of students’ global leadership capacities, but until learning outcomes of study abroad are better defined the potential of this learning opportunity will remain untapped.

**Trends**

Overall, the number of students studying abroad is hardly noticeable in the context of the number of students pursuing higher education. For example, in 2008 a reported “…55 percent of college bound high-school seniors in a recent survey said they planned to study overseas, but just 1 percent of American students actually do so”
(Fischer, 2008a, p. A1). And of that one percent of undergraduates who do study abroad, 21% of those are majoring in the social sciences, 19% in business and management, and 13% in humanities fields (Gardner & Witherell, 2008). The concentration of over 50% of students who study abroad to certain majors leaves room for concern that the structure of other fields of study limit access to study abroad opportunities. Limited access to study abroad leads to the following discussion of potential barriers students face in pursuing study abroad.

**Required study abroad.** Nearly all colleges and universities support the study abroad interests of their students. Fischer (2008c) wrote, “…institutions with study-abroad opportunities for students have climbed sharply, to 91 percent in 2006 from 65 percent five years earlier” (p. A24). This information was gathered by the American Council on Education (ACE) from a national survey of approximately 1,070 colleges and universities in 2001 and 2006. Fischer’s (2008c) report notes, though, that “…fewer than half of the colleges surveyed have a full-time administrator to coordinate or oversee programs and activities related to internationalization” (p. A24). This shows that, while institutions are in large part providing the opportunities for study abroad, they are not supporting them with appropriate staff and attention. While the Council for the Advancement of Standards (CAS) (2009) requires that the home office that supports study abroad functions at a university be “staffed adequately by individuals qualified to accomplish the mission and goals” (p. 220), there are no CAS guidelines yet for the staff actually accompanying the study abroad trip, or on-site staff that would be the points of sustained contact for students during their study abroad experience.
One university that is making a significant commitment to support study abroad is Goucher University, which Fischer (2008a) cites as “one of possibly just two American colleges to make overseas study mandatory” (p. A1). Goucher has been successful with that method of internationalization by offering a subsidizing voucher for the required additional expenses. Other universities, “such as Kalamazoo, in Michigan, and Dickinson, in Pennsylvania,” (Fischer, 2008a, p. A1) have managed to send their entire undergraduate student body abroad at some point during their undergraduate experience without strict requirements but instead an institutional philosophy that encourages international experience. In either case, an institutional commitment is necessary to expand study abroad to reach more students.

**Barriers**

Individual students may have diverse reasons for pursuing study abroad. Though higher education has increased its overall commitment to internationalization (Teichler, 2004), in reality a considerably small proportion – one percent – of students in higher education actually study abroad (Fischer, 2008a). Barriers to study abroad are identified here since one significant outcome of this study may be to indicate some learning outcomes gained through study abroad, which might warrant increased access to study abroad for students. Understanding these barriers for certain students will be one important step toward breaking them. This next section will consider specific issues of identity-based access, course credit, funding, and curriculum that limit students’ internationalization experiences.

*Identity-based access.* Few students are able to realize the experience of study abroad during their undergraduate years, though 55% indicate interest in doing so
(Fischer, 2008a). Study abroad programs see a “…lack of diversity among American applicants. They have been, and still are, overwhelmingly white and from four-year institutions” (McMurtrie, 2008, p. 23). Wagner and Schnitzer (1991) recognize that there has been some increased mobility to go abroad in community college students, especially with more branch campuses being developed through partnerships between domestic and foreign institutions. Still, community colleges are vastly underrepresented in the study abroad populations. Community colleges will be omitted from this research study because the population of interest is seniors, where community colleges offer two-year associates degrees and so seniors do not exist in the community college.

Even many students at four-year institutions face significant barriers. “Few minority students come from well-traveled families, and many arrive at college with the mind-set that they are there to move quickly to the job market,” writes Norton (2008, p. 12). Norton suggests that to achieve a college degree is the goal, especially for students who are often first-generation, and so they may not even consider supplementing that degree with a study abroad experience. The editor of the Handbook of Research and Practice in Study Abroad (Lewin 2009) devotes an entire chapter to creating study abroad opportunities for first-generation students, who have “disproportionately low participation rates” (Martinez, Ranjeet and Marx, 2009, p. 528). Though research about the lack of first-generation participation in study abroad is limited, one study identified the particular barriers for first-generation students to include cost, lack of information, and family constraints.

Norton (2008) claims that students can obtain unique benefits from study abroad experiences, which can allow students to “…enter into new dialogues about race and
reconsider their own backgrounds” (p. 12). This possibility may also disinterest students, so Norton suggests that study abroad advisors openly discuss issues of race and ethnicity as they may arise in a student’s experiences abroad. Study abroad advisors are also taking steps to reach out by meeting with identity-based student groups, developing informational materials targeted toward distinct identity audiences, and providing scholarships, according to Norton. At a more national level, Gardener and Witherell (2008) report that the State Department does attempt to target community colleges and Minority-Serving institutions, whose students traditionally do not participate in study abroad, as well as four-year institutions with their outreach campaigns. In addition, Gardener and Witherell (2008) recognize efforts from the Institute of International Education to ensure fair access to study abroad by all students.

*Course credit.* Structural differences between national educational systems are always a possible barrier to international cooperation and mobility. These structural differences pose the risk that a cooperating partner school could interpret structural differences as an indication that the partner institution, staff or students were not sufficiently similar to engage in fruitful exchange, cooperation, or mobility (Teichler, 2004, p. 18). As Teichler (2004) wrote, the different, unfamiliar experiences that can make study abroad so alluring are also the differences that make it difficult for faculty and staff to assess equal credit value between institutions. This limits many students from participating in international study because they will not be rewarded with the same amount of credit, or the credits earned will not be distributed as necessary on the transcript for timely graduation. Valuing the credits earned during study abroad has long been discussed in higher education. Teichler (2004) says that “Since the late 1980s the
European Union has advocated introducing ECTS, a European credit transfer system, in order to compare activities and achievements more easily and to grant recognition with a strong reference to the workload of students,” (p. 16), which would solve the problem between European institutions, but not for American students.

In general, American universities claim to be supportive of study abroad but in fact they often discourage it through uncertain credit rewarding policies, claiming the “questionable quality of the academic experience in other countries” (Burn, 1980, p. 134-135). This can lead students to believe that time spent abroad is for tourism and relaxation away from the stress of their home institution, which likely contributes to the sometimes negative images of American students at foreign institutions. Unclear credit policies for study abroad may lead “Some students [to] believe that courses taken abroad may be regarded as less rigorous or even frivolous” according to Stecker (2007, p. 2). Students in certain fields of study are also face harsher credit realities. Business studies have recently taken successful steps to integrate international study into undergraduate coursework, but engineering and sciences face the additional issues of specific course requirements, including laboratories. Stecker (2007) also noted that “since many engineering courses must be taken sequentially and are only offered one time per academic year, studying abroad often means committing to a fifth year of study” (pp. 2). Certainly engineers can benefit from learning in international settings, and so more should be done to ensure that credit transfer is not a barrier to engineering students, or any other students.

\textit{Funding}. Cost is certainly a factor impacting the participation of many students’ ability to study abroad. There are often university-level scholarships and aid granted to
students in need, but at a national level financial aid is limited. And in the future that is unlikely to change. As early as 1980, Burn foresaw that “Although major federal funding of study abroad by American undergraduates is not likely, this field should be strongly encouraged; study abroad can have a lifelong impact on students’ values and understanding of other cultures” (p. 129). Burn (1980) also assumes that federal funding is unlikely to ever be available at levels that match the level of importance warranted by the benefits of foreign study.

One available option for federal funding is the Fulbright Program, “the U.S. government’s flagship program in international educational exchange…[a] vehicle for promoting ‘mutual understanding between the people of the United States and the people of other countries of the world’” (Institute of International Education, n.d., p. 1). Funding is reported to come primarily from an annual gift from Congress to the Department of State, and have benefitted over 44,000 U.S. faculty and professionals since its inception in 1945. In the current academic year, “About 1,500 students and 1,300 scholars from the United States and abroad are studying and working on Fulbrights” (McMurtrie, 2008, p. 23). Funding at the federal level is clearly having a significant impact on the numbers who venture abroad, and more programs like Fulbright should be in place to bolster that support.

The good news is that, in the past, economic downturns have not drastically affected study abroad participation. Fluctuating exchange rates sometimes make it more economical for students to pursue a semester abroad; as Fischer (2008b) wrote:

…[during] previous economic rough patches, study-abroad numbers have remained stable or even climbed….a rise in the value of the dollar, may actually
have a mitigating effect, lowering costs for American students overseas…studying overseas can help students gain crucial skills they will need in a competitive global marketplace. (p. A24)

As Fischer also pointed out above, study abroad can often enhance a student’s marketability in a career search post-graduation, thus boosting their long-term earning potential as a result of the initial expenses to study abroad.

Curriculum. Study abroad, as part of the bigger process of internationalization, includes not only the act of traveling overseas to study but the coursework during that experience. “One could then assume that the common goal of internationalization would link departments together, and that this, in turn, would affect curricular decisions” (Gorka & Niesenbaum, 2001, p. 100). However linking departments together has not been the overwhelming result of the internationalization movement. Rather, since curriculum for many fields has been honed and practiced for some time, many faculty balk at the challenge of updating their curriculum. Faculty may believe “intercultural teaching and learning is an additive, something to be tacked on to a busy curriculum, rather than a stance that sees intercultural development being infused into the ways we teach and learn” (Paige, 2004, p. 89). If more faculty embraced international study and integrated it into curriculum, students would receive more exposure and incentive to study abroad; even those who lacked mobility would still graduate with an improved ability to operate in a globally focused society. Since only one percent of undergraduates study abroad, Lovett (2004) pointed out that “It might be more useful, however, to send faculty members abroad to work on their global mind-sets, especially since millions of American students will never have the opportunity or the desire to study abroad” (p. 40). In the
end, as Paige (2003) wrote, internationalizing curriculum is “the major arena for developing international and intercultural knowledge, skills and worldviews” (p. 56).

Summary

This chapter identified a growing trend toward globalization, including the globalization of higher education. Student leadership development is of ever-increasing importance, as the globalization trend will increasingly require institutes of higher education to graduate students with global leadership capacities. While higher education notes increased student participation in study abroad, little is known about outcomes of study abroad related to student leadership development. This study aims to determine if study abroad experience contribute to student leadership development, relying on data from the 2009 MSL. Key terms were defined that will guide the remaining chapters, including the literature explored in the next chapter.
Chapter 2: Review of Literature

Overview

To understand how study abroad might contribute to student leadership development requires an extensive review of a number of related bodies of literature. First student leadership development literature is reviewed, followed by global leadership literature, including the trait of intercultural competence for global leadership. Then Astin’s (1999) theory of involvement serves as a framework for relating leadership development to study abroad experiences. Study abroad is explored as a form of student involvement, and then study abroad to develop the trait of intercultural competence is explored as a method of developing global leadership traits. The study abroad literature ends the chapter, including a developmental model for measuring intercultural competence.

Student Leadership Development

First the concept of leadership development in higher education is explored. Chapter 1 delved into a brief history of leadership development, as well as the social change model of leadership development (SCM), which is of particular interest based upon the instrument used in this study. Two models of student leadership development are discussed here, followed by research related to the SCM, as well as research of other leadership development programs and the outcomes associated with those programs. Finally, limitations of current research in student leadership development are discussed.

Models of Student Leadership Development

Theories and models have been created that examine the methods through which students might develop the capacity for leadership. What follows are a few of those
theories and models employed in practice today with regards to the development of a leadership identity.

*Leadership identity development (LID) model.* One conceptual model based specifically in higher education is the leadership identity development (LID) model, as seen in Figure 2.1, which was created by studying college students using qualitative research methods and a grounded theory approach, resulting in a contextual six-stage model of “self in relation to others as a leader” (Komives, Mainella, Owen, Osteen, & Longerbeam, 2005, p. 596). The LID model developers wrote that the model has “direct implications in both advising individual students and in designing programs to develop the leadership efficacy of students in an organizational context” (p. 610).

The LID model incorporates the interactions between developing self and group influences toward a student’s changing view of self with others. This changing view of self over time lends to a student’s broadening view of leadership. All of this occurs within the context of developmental influences and contributes to the student’s movement through the six stages of the hub category of leadership identity. As changes in self in relation to others occurred amid other influences, students gradually shifted to different stages in the model. The cycle is repeated at the more advanced stage, and as the cycles advance, so does the student’s identity as a leader (Komives et al., 2005).
Figure 2.1 Developing a leadership identity: Illustrating the cycle

Transitions to different stages in the LID model seem to be a function of interpersonal factors, rather than a sole focus on key events that are often credited for leadership development. Much of the LID model focuses on relational leadership practices and the influence of relationships on the development of a leadership identity since leadership is seen as a behavior that inherently involves others. Still, meaningful involvement is identified as a factor within developmental influences that provide the context for leadership development. The researchers wrote that:

Involvement experiences were the training ground where leadership identity evolved. These experiences helped clarify personal value and interests, and
helped students experience diverse peers, learn about self, and develop new
skills…As they transitioned into new schools and the university, they sought
social integration through involvement. Later meaningful involvements showed
more complex motivations…involvements developed values and personal skills.
(Komives et al., 2005, p. 598)

The researchers did note, however, that the students studied were selected through
purposeful intensity sampling due to their exemplifying relational leadership approaches.
Since this group was, as a result, highly involved, the developmental process may be
different for students who do not have group involvement experiences. Still, knowing
that experiences in student involvement promote the achievement of desired learning
outcomes indicates that leadership as a desired student outcome should be able to be
achieved as a result of student involvement.

*Development of leadership skill.* Lord and Hall (2005) propose a skills-based
model of leadership development. Their approach recognizes that skills may not be
inherent but in some cases must be developed, and that in many cases that development
requires proactivity on the part of the individual. Lord and Hall relied on “cognitive
science literature on skill development and task expertise” applied to leadership studies as
the basis for developing their model (p. 592). They propose that leadership skill
development begins in minute ways, and eventually organized through systems into
higher-order skills that become part of one’s identity and leadership self-concept.

Through this developmental framework, one develops skills and progresses from
novice, to intermediate, to expert. The skills developed also begin at a stage that Lord
and Hall (2005) refer to as “surface structure” (p. 598), referring to those skills learned
through observation and common sense. This level of skill development is implicit, based upon what one sees and recognizes to be leadership. This concept will be seen again in the Global Leadership and Organizational Behavior Effectiveness (GLOBE) studies (House, Hanges, Javidan, Dorfman & Gupta, 2005), which are based upon the implicit leadership theory that in any region, what those individuals recognize to be leadership is, in fact, leadership.

A leader would then develop the intermediate level skills of “cognitive, emotional, and identity-related regulation” (Lord & Hall, 2005, p. 600). This level occurs when the skills developed can be routinized, leaving cognitive space for more critical thinking. Leaders of this level skill are able to recognize and react naturally, rather than needing to intentionally apply a certain skill. They are able to recognize patterns, make connections, and monitor the process. Finally, expert-level skill is referred to as “deeper structures” (Lord & Hall, 2005, p. 602) and reflects a broader perspective of the leadership situation as well as emotional regulation. At this stage, building leadership skill in others is also seen as a priority for leaders.

At each of these stages, a variety of skills can be identified, which Lord and Hall (2005) categorized into the areas of Task, Emotional, Social, Identity Level, Meta-Monitoring, and Value orientation. The authors mention that at any stage development of these skills is dependent on characteristics of the individual, as well as cultural context and personal experience. These final two factors affecting leadership skill development are of particular interest as they relate to study abroad: cultural context being shifted demands the incorporation and development of new skills, or skills in a new context,
while the personal experience of having studied abroad may continue to play a role in one’s leadership development long after returning.

*The social change model of leadership development.* The social change model of leadership development has been studied via the Socially Responsible Leadership Scale (SRLS) (Tyree, 1998) adapted for use within the Multi-Institutional Study of Leadership (MSL) (Dugan & Komives, 2007). When it was launched in 2006 this study took the form of a self-report survey, of which 52 campuses and over 50,000 students participated for the first time in 2006. Campuses were selected based on their differentiating characteristics to give a broad sample of higher education. The MSL is trying to determine how the college environment influences student leadership development. As such, the survey instrument is based on Astin’s (1991) college impact model of inputs, environments, and outcomes, as well as on the SCM (HERI, 1996), as seen in Figures 1.1 and 1.2. Using a model to frame the MSL, such as the SCM, differentiates the MSL from other leadership research. Previous research has been difficult to generalize since context plays a large role, rather than unifying the context through the perspective of a single model. Data from the 2006 administration of the MSL are still being analyzed and now combined with the second 2009 administration, but initial overall initial findings indicate that demographic and pre-college influences matter in student leadership development, as do in-college experiences such as discussions, mentoring, campus involvement, service, positional leadership roles, and formal leadership programs (Dugan & Komives, 2007).

*Evidence of Student Leadership Development*

The above-mentioned models of student leadership development are among those that have been studied at various institutions. This next section identifies some
significant studies in the field of student leadership development and some of the findings from that work.

*W.K. Kellogg Foundation national leadership project assessment.* The W.K. Kellogg Foundation funded 31 projects at colleges and universities to promote the vision of leadership development in young people. These projects were recently evaluated to determine progress toward the vision, with the eventual goal of sharing the information gathered. This research was conducted by comparing summaries of each of these diverse programs, as well as through site visits to each project. The projects were compared by characteristics such as institutional type, mission, location, enrollment, higher education programs, collaboration, participant’s age, and program practices. Comparisons showed that “…leadership programs can be tailored to a wide range of institutional settings and student needs. Exemplary models exist in all types of institutions and serve students who differ in gender, ethnicity, age, major, and level of academic preparation” (Zimmerman-Oster & Burkhardt, 2001, pp. 65-66). While there were clear differences among projects, four *Hallmarks of Exemplary Projects* were identified, including Context, Philosophy, Sustainability and Common Practices. Context refers to the fact that the most successful programs enjoyed a strong connection between mission of the institution and mission of the program, wide support, an academic and a department home, and strong leadership. These programs also had a “common intellectual framework” (Zimmerman-Oster & Burkhardt, 2001, pp. 13), or philosophy. Successful programs can be sustained over time due to the commitment of personnel across the institution, and ongoing evaluations. And finally successful programs share common practices or methods of leadership
development, including problem solving, service learning, outdoor activities, mentoring, community involvement, and faculty involvement.

Certain findings related to leadership programs for college students were apparent among all 31 Kellogg-funded programs. For instance, leadership programs “…enhance the undergraduate experience in many ways that were not expected. There are clear benefits to the students’ sense of integration in the collegiate experience, higher rates of retention, and a stronger sense of involvement in the surrounding community” (Zimmerman-Oster & Burkhardt, 2001, p. 67). In addition to these positive outcomes of participating in leadership programs, there were also strong ties to the LID model. It seems that all programs focused on relational styles of leading, with a “primary focus on the self and the self in relation to the external world” (Zimmerman-Oster & Burkhardt, 2001, p. 131). Considering that the changing view of self in relation to others is a key factor for transitioning through stages of the LID model, it is good that these projects are promoting those transitions in students. Reported findings of the Kellogg program research also included that “participants cited increased confidence in their abilities, leadership skills, and willingness to serve in a leadership role. In addition, compared to nonparticipants, leadership program participants were noticeably more cooperative and less authoritarian and held more ethical views of leadership” (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001, p. 16).

W.K. Kellogg Foundation and CIRP data. Another study looked at 10 of the 31 schools with Kellogg funded projects, but also included data from the Cooperative Institutional Research Program (CIRP) to do an in-depth longitudinal study. For the purposes of this study, leadership experiences were broadly defined as “student
participation in volunteer or community service, tutoring or peer mentoring, occupying
an elected student leadership role, attending alternative spring breaks, or attending
leadership development workshops” (Cress, Astin, Zimmerman-Oster, & Burkhardt,
2001, p. 17). In looking at development over time, students who participated in
leadership activities demonstrated growth in the areas expected by the program directors.
Specifically, “‘understanding of self’ was stronger or much stronger since entering
college, [and] participants in leadership activities rated this change at a higher level than
nonparticipants did” (Cress et al., 2001, p. 18). Thus, it appears that students develop
leadership capacities in college by participating in leadership programs.

2006 Multi-Institutional Study of Leadership. As mentioned before, the MSL
investigators were trying to determine how the college environment influences student
leadership development through a self-report survey, of which 52 campuses and over
50,000 students participated for the first time in 2006. Overall, the 2006 MSL data
found that 7% to 14% of variance in leadership outcomes can be attributed to experiences
in college, which implies that leadership educators in higher education have the
opportunity for “direct intervention and influence” in students’ leadership development
(Dugan & Komives, 2007, p. 14). Specifically, involvement in groups such as clubs and
organizations seems to have a direct affect upon students’ reported leadership outcomes
at the group and society levels of the SCM (Dugan & Komives, in press). The MSL
research team also reported that greater numbers of students were involved on campus
than the National Survey of Student Engagement (NSSE) data had previously indicated,
with “78% of students in this sample report having had a least one experience in a college
organization” (Dugan, 2008, p. 11), as opposed to approximately half reported in the
NSSE findings. Contributing the MSL data to the knowledge base allows greater depth of knowledge on how student involvement influences leadership development, especially because the reported student involvement rates were higher than previously proposed by the NSSE data.

The MSL specifically inquired about students’ involvement in intentional leadership programs, identifying three categories of program: “…short-term (e.g., one-time lecture, workshop), moderate term (e.g., a single academic course, multi-session series), and long-term (e.g., leadership major or minor, certification program, or living learning program)” (Dugan & Komives, 2007, p. 16). The results showed an increase in leadership outcomes even after just one short-term program as compared to students who did not attend any program. Unfortunately, “35% of students reported never having attended a leadership program of any duration” (Dugan & Komives, 2007, p. 16). The investigators report that overall, students who attend any length of program show the same amount of influence when compared to no involvement, though different length programs showed differences in outcomes related to a specific value of the SCM. When comparing only students who were involved in leadership programs, Dugan and Komives (2007) found that, “Long-term experiences, however, demonstrated both the largest overall effect size (i.e., moderate) and contributed to significantly higher scores than both short and moderate-term programs on the measure of Leadership Efficacy” (p. 16). Long-term programs show more significant student leadership development outcomes when compared to short or moderate-term programs.

The MSL data are rich with information to better inform higher education leadership educators’ practice with students. Particularly related to student involvement,
data have been reported on the effect of positional leadership roles on type and breadth of involvement, on involvement in credit-bearing coursework or certificate programs, and on differences among gender, race, and sexuality on leadership development. Based solely upon the general findings, the investigators recommend that leadership educators:

- Get students involved in at least one organization. Students must work with others to truly learn leadership. Academic advisors, career counselors, resident assistants, peer leaders, and mentors should help students identify and join at least one group of interest to them. Invite students into organizations. Develop new member in-take processes that promote identity development, meaningful involvement, and membership persistence. (Dugan & Komives, 2007, p. 17)

The above is just one of the 10 recommendations resulting from the 2006 MSL data. Other recommendations related to involvement are that leadership educators “diffuse leadership programs across the institution,” “focus on members, not just positional leaders,” “discourage too much breadth in involvement,” and “design distinct programs for specific groups” (Dugan & Komives, 2007, pp. 18-19) to achieve success in leadership development among participants in intentional programs.

*Limitations and Summary of Student Leadership Development Literature*

The results of the MSL and the Kellogg Foundation’s work, in addition to the NSSE and CIRP data that are available, are commendable steps toward understanding students’ leadership development in college and in creating intentional practices to support that development. As practices develop from this research, and as further research is conducted, practitioners and scholars should take care in planning intentional leadership development programs. Dugan (2008) wrote that:
…all of the studies are limited by how the researchers chose to define and measure leadership with many studies using indicators that are inconsistent with contemporary conceptualizations of the phenomenon (e.g., positional role attainment, popularity, social self-confidence, drive to achieve). (p. 11)

Especially since much of the available data are self-reported, individual variances in the way someone understands or sees leadership can greatly affect results. Since a universal definition of leadership does not yet exist, the design and methods of research should be carefully considered before applying the results at any singular campus. The same is true for evaluating programs, since leadership involvement in even the limited number of studies discusses here can differ greatly. And finally, consider that empirical research on leadership development is still in early stages. As longitudinal data become available, current results may shift.

Given that research on student leadership development, and specifically the impact of involvement on leadership development, is still in early stages, there is much room for additional work. Of great worth is the MSL data that continue to grow with each round of data collection. Nuanced looks into specific aspects of leadership development are available in the data, ready to be explored. Even continuing to conduct additional research under one model of leadership development – the SCM – will help to enrich practice by being able to apply data across studies. Offering deeper research into student leadership identity development will also be important, especially to be sure that the LID Model applies to a diverse group of individuals. And then, to take the research into current trend areas will also be important – for example, how do student athletes, or
Greek students, or first-generation students develop as leaders? The possibilities for research to best serve specific groups of students are numerous.

For the time being, data clearly show a positive link between student involvement and leadership development. The most recent data from the MSL show that “general involvement in student clubs and organizations [as] one of the three most significant, positive predictors of leadership…” (Dugan, 2008, p. 11). Additionally, involvement in intentional leadership development programs also promotes positive student leadership development, as shown by the Kellogg Foundation research. This information is invaluable to leadership educators in higher education since most universities espouse leadership development in their mission statements. To fulfill the mission of creating global citizens, socially responsible individuals, or even future leaders, at universities, leadership educators must understand the student leadership identity process and the best ways to promote that development.

Global Leadership

This section begins by exploring the research in global leadership. A model of global leadership development is identified, followed by the GLOBE study (House, Hanges, Javidan, Dorfman, & Gupta, 2004), the first of its kind to study leadership on a global scale. As intercultural competence is identified as a trait of global leadership, research on the concept is discussed, and the section concludes with limitations of current research in global leadership.

A universal model of global leadership does not yet exist, but “Most empirical work on global leadership has attempted to answer these two questions: ‘What capabilities do global leaders need to acquire in order to be effective?’ and ‘How can
managers most effectively develop these characteristics” (Osland, 2008, p. 40)? Many scholars have studied the capabilities of global leaders, but each finding seems to differ, even if only by the nuance of a definition. These differences make it difficult to build upon the existing base of global leadership knowledge, since each contribution results in a new interpretation based on that individual’s frame of reference. Despite this hurdle, Osland (2008) claims that at least “there is a growing consensus that global leadership consists of core characteristics, context-specific abilities, and universal leadership skills” (p. 54). Although there are differences in how global leadership competencies are defined and valued, there tend to be competencies related to enacting core leadership skills in various contexts, as well as competencies around universally accepted and effective leadership skills.

Models of Global Leadership

Pyramid model of global leadership. In 2008, Osland expanded upon an existing theoretical model for global management to create the pyramid model of global leadership – five levels of competencies, each level building upon the previous until one has accumulated all five competencies. The base level is global knowledge. One can build upon his or her knowledge of other regions and people by acquiring each of four threshold traits, the second level of the pyramid. These traits, which are often viewed as part of one’s personality and difficult to learn, include integrity, humility, inquisitiveness, and resilience. Inquisitiveness, or curiosity, causes one to seek new, unfamiliar experiences. The trait of integrity is important for intercultural experiences since one must enact one’s own values, though adaptable to many situations. Likewise, in
unfamiliar situations the ability to be humble and resilient to change in unfamiliar environments serves one well.

Next, the third level goes beyond personality traits to attitudes and orientations, which include having a global mindset, cognitive complexity, and cosmopolitanism (Osland, 2008). Specifically, to be cosmopolitan means to be at home in all parts of the world; to be worldly (Merriam-Webster Incorporated, 1993). Since “most academics hold cosmopolitan values in high esteem” (Teichler, 2004, p. 8), meaning higher education values worldliness, the context of a higher education has the potential to be an ideal environment to develop these threshold traits in college students. As Altbach (2004) stated:

From the beginning, universities represented global institutions – in that they functioned in a common language, Latin, and served an international clientele of students. Professors, too, came from many countries, and the knowledge imparted reflected scholarly learning in the Western world at the time (p. 4). Universities have historically been places where multiple perspectives are a method to enrich the intellectual environment (Perkin, 1997), and the same is true for today’s institutions. The university environment should be a place where global mindsets emerge as a result of exposure to a variety of viewpoints and interaction among peers who have different backgrounds but share the same collegiate experience.

The next level of the pyramid builds to interpersonal skills. Interpersonal skills are needed to bring action to the global knowledge, traits, and global mindset that a global leader must possess. This level includes skills such as mindful communication, creating and building trust, and multicultural teaming, all of which translate to being an
effective leader among a diverse group. Once one has developed one’s interpersonal skills related to global leadership, she or he might begin to develop system skills, the top level of the pyramid model. These skills require the expertise of interpersonal skills as they are related to affecting the systems, and people in those systems, who are the subject of the enacted change effort. Osland (2008) includes making ethical decisions, influencing stakeholders, leading change, spanning boundaries, architecting, and building community among system skills that are required competencies for global leaders.

A weakness of the pyramid model is that it does not seem to take into account the dynamism of the environment in which leadership is practiced. Certainly one might lack global knowledge but have the threshold traits and interpersonal skills to be effective working with others across borders. Despite that, it remains a strong model for incorporating and categorizing the many competencies discovered to be necessary in global leadership (Osland, 2008).

The GLOBE study. Few studies have been conducted worldwide that take a look at dimensions of global leadership. The most comprehensive study to date is the GLOBE study, or the research on Global Leadership and Organizational Behavior Effectiveness. In the mid-1990s the GLOBE study “collected data from more than 17,000 middle managers in 951 organizations in telecommunications, food processing, and finance industries in 62 societies” (House et al., 2004, p. 29) with the purpose of gaining more understanding of cross-cultural interactions and how leadership is impacted by culture. The study consisted of both culture and leadership measures, and was administered in a variety of methods. The results of the GLOBE study have not only increased the
understanding of how leadership is viewed in different cultures but has also discovered some universal traits of leadership that apply in all cultures (Northouse, 2007).

To study cultural dimensions, the researchers built upon some existing research, including the work of Hofstede. In Hofstede’s (2005) study of IBM employees worldwide, he discerned five dimensions of culture that “can be measured relative to other cultures” (p. 23) and which characterize culture. These five dimensions were built upon in the GLOBE study, which identifies nine dimensions of culture: Uncertainty Avoidance, Power Distance, Institutional Collectivism, In-Group Collectivism, Gender Egalitarianism, Assertiveness, Future Orientation, Performance Orientation, and Humane Orientation (House et al., 2004). While some are self-explanatory or intuitive, others are termed in less familiar ways. For instance, Uncertainty Avoidance means how willing is one to take risks? Is one’s life lived in fear, taking precautions, with reckless abandon, or somewhere along that spectrum? And Future Orientation refers to how planful for the future one is, versus how much one lives in the moment, or some combination of the two. These cultural dimensions were used to characterize the ten regional clusters of culture that were identified based upon “extant literature,” “historical and cultural analysis,” as well as geography, religion and language (House et al., 2004, p. 179).

Having identified the cultural dimension tendencies of ten cultural regions, the researchers then compared how those cultures viewed leadership. This was conducted using the frame of implicit leadership theory, which supposes that leadership is what others interpret as leadership; “individuals have implicit beliefs and convictions about the attributes and beliefs that distinguish leaders from nonleaders…” (House, et al., 2004, p. 16). Using the framework that cultures will interpret leadership differently based on their
differing beliefs about leadership, the GLOBE researchers identified six leadership
behaviors emerging from the research to assess how the culture clusters view leadership.
These leadership behaviors include charismatic/value-based leadership, team-oriented
leadership, participative leadership, humane-oriented leadership, autonomous leadership,
and self-protective leadership, and each culture was found to place different degrees of
importance and value on each behavior (House et al., 2004).

Beyond the emerging leadership profile found for each culture cluster, by
systematically studying leaders in over 60 diverse countries, this comprehensive body of
research has shown that while there are many definitions of leadership in the world, there
are a few traits that transcend borders. From that knowledge, Northouse (2007) wrote that
“…it appears that the universally endorsed portrait of an exceptional leader has a high
degree of integrity, charisma and interpersonal skill” (p. 339). The focus on interpersonal
skill shows direct correlation to the intercultural competency that is seen to be vital for
global leaders. More specifically, the universally positive leadership traits are, in no
particular order, to be “trustworthy,” “intelligent,” “just,” “decisive,” “encouraging,”
“foresight,” “win-win problem solver,” “plans ahead,” “communicative,” “motive
arouser,” “positive,” “administrative skilled,” “dynamic,” “coordinator,” “dependable,”
“confidence-builder,” “excellence-oriented,” “motivational,” “honest,” “effective
bargainer,” “informed,” and “team-builder” (House et al., 2004, p. 677). These are
counteracted by the universally negative attributes that were universally found to detract
from leadership include being a “loner,” “ruthless,” “nonexplicit,” “noncooperative,”
“irritable,” “egocentric,” “asocial” and “dictatorial” (House et al., 2004, p. 678).
Despite these findings contributing to the quest for a universal model of leadership, the GLOBE study is not without its faults. While the more extensive findings do report on culturally-specific leadership, the researchers have not yet been able to translate those findings into a theory of how culture influences leadership. Still, the GLOBE study is the only study known to have studied how leadership is viewed worldwide. To have that much scope in a quantitative study means that the GLOBE findings are found to be generalizable. That generalizability is narrowed when one considers the definitions of cultural dimensions and leadership behaviors offered in the study are likely to be interpreted differently based on cultural context. Likewise, the way the study uses the framework of implicit leadership puts the onus on those who are perceiving leadership, allowing little room for considering leadership as what one does, rather than what one is perceived to do (Northouse, 2007). Despite its criticisms, the GLOBE study stands alone right now as a source of understanding how culture impacts leadership worldwide. As the GLOBE research continues in its multiple phases, it will continue to contribute to the global understanding of leadership.

*Research on Intercultural Competence*

Intercultural competence has been found to be a desirable trait in global leadership research, though the term itself is ill-defined. Deardorff (2006) attempted to define the learning outcome of intercultural competence in her research study involving both higher education administrators and internationally known intercultural scholars. The study consisted of two methods: a questionnaire completed at 24 U.S. institutions by administrators of internationalization strategies, and also a 3-round delphi study of which 23 nominated intercultural scholars participated. She attempted to draw conclusions
about “identified elements of intercultural competence and assessment methods on which both the intercultural scholars and administrators agreed, resulting in the first study to document consensus on intercultural competence” (p. 241).

Interestingly, Deardorff (2006) found that the preferred definition of intercultural competence was quite broad – presumably because the concept is so complex. The administrators in the study held that a definition lacking specificity was necessary to be inclusive of all students in all institutions and fields of study. Each group selected a slightly different definition of intercultural competence. Administrators selected the definition of “Knowledge of others; knowledge of self; skills to interpret and relate; skills to discover and/or to interact; valuing others’ values, beliefs and behaviors; and relativizing one’s self. Linguistic competence plays a key role” (Byram, 1997, p. 34, as cited in Deardorff, 2006, p. 247). Among the top selections for administrators were common elements of “the awareness, valuing, and understanding of cultural differences; experiencing others’ cultures; and self-awareness of one’s own culture (p. 247). In addition, the intercultural scholars generally agreed upon the definition of intercultural competence as “the ability to communicate effectively and appropriately in intercultural situations based on one’s intercultural knowledge, skills, and attitudes” (Deardorff, 2004, p. 194 as cited in Deardorff, 2006, pp. 247-248). The top themes of their preferences seemed to focus on communication and behaviors. The differences between the selected themes may be of interest: administrators’ themes included valuing difference and self-awareness, while scholars’ themes included behavior. Perhaps this can be attributed to the fact that administrators in this study approached the topic from the perspective of
their campus setting, while the scholars were selected for having international experiences that rely on behavior in context.

In general, though, the above definitions and themes are quite similar. They both focus on one’s knowledge of self and ability to interact with and understand others who are different in intercultural settings. Both administrators and scholars were able to come to consensus that to achieve intercultural competence students needed “Skills to analyze, interpret, and relate, as well as skills to listen and observe. Cognitive skills emerged, including comparative thinking skills and cognitive flexibility” (Deardorff, 2006, p. 248).

The next focus of the study was to attempt to measure these skills, and therefore intercultural competence. The initial purpose of the study was to create measures of assessment based on the specifics in an agreed-upon definition of intercultural competence, however since the definitions remained broad, the measures were more difficult to define. In keeping with this broad reality, “Administrators were nearly unanimous (95%) in using a mix of both qualitative and quantitative measures to assess students’ intercultural competence” (Deardorff, 2006, p. 250).

These quantitative and qualitative measures took various forms, though an average of five different methods were used per institution (Deardorff, 2006) in an attempt to ensure that the measurement was all-encompassing. “Top assessment methods currently being used include student interviews…followed by student papers and presentations, student portfolios, observation of students by others/host culture, professor evaluations (in courses), and pretests and posttests” (Deardorff, 2006, p. 248). Paige (2007) also emphasizes that student experiences leading up to and following the international experience should be well-supported and informed for them to gain the most
value of the possible learning outcomes, such as intercultural competence. Regardless of the method of measurement Deardorff (2006) concluded, “… intercultural competence can indeed be measured. Furthermore, it is important to measure degrees (levels) of intercultural competence…for a period of time as opposed to one point in time” (p. 257). That statement suggests the intercultural competence is an ongoing process, rather than a tangible goal to achieve. To continue to be able to improve the measurement of that process, Deardorff suggests that intercultural competence cannot be defined until more research is done to define the terms associated with the occurrence.

Limitations of Global Leadership Literature

The research base for global leadership is still emerging. The GLOBE study is the first of its kind to look at the relationship between leadership and culture worldwide. Based upon a theory of implicit leadership, identified leadership traits, and cultural dimensions, it suggests a leadership profile for each cultural cluster. The GLOBE study also identified universal traits of leadership, both good and bad (Northouse, 2007). These universal traits do not seem to consider some of the traits identified in Osland’s (2008) pyramid model of global leadership, which builds upon global knowledge up through five levels of competencies. While both are strong contributions to the field, a universal theory or model of global leadership does not exist. Scholars agree that global leadership warrants its own field of study since it differs from leadership domestically in both its intensity and its outcomes. The outcomes associated with global leadership are necessary to operate in a global society, and so higher education has an obligation to graduate students who have developed global leadership competencies to be successful in the world.
Though Deardorff (2006) began to define these competencies, such as intercultural competence, it is important to note that her study included a majority of U.S. participants, one from Canada, and one from the U.K., therefore representing highly Westernized viewpoints. Perhaps the definition of intercultural competence would be even broader with the inclusion of other viewpoints, or perhaps by including those perspectives the definition could be narrowed to be more specific. Research into the intercultural competency development of students is also lacking; Deardorff’s work provides a starting point for defining the topic of interest, however little work has been done to identify how students develop intercultural competency. Literature related to appreciation of diversity and intercultural communication is the closest, though neither areas address the scope addressed through intercultural competency.

*Theoretical Frame: Student Involvement*

What follows is supportive of the belief that student involvement at the university level promotes the development of leadership skills. Astin (1999) proposes that to achieve the desired learning outcomes of any intentional intervention, students must be compelled to devote sufficient time and energy to their involvement with the experience. More than being physically present, students must be willing to mentally engage with the content to be truly involved. According to Astin, there is a direct positive link between level of involvement and level of development. He goes on with the thought that “From the standpoint of the educator, the most important hypothesis in the theory is that the effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement” (p. 529), that is, policy and practices should be compelling enough to elicit student involvement to be effective.
Astin (1999) applies his theory of involvement to environments beyond the traditional classroom. Involvement is related to academic courses, but also co-curricular programs and interventions in the college setting wherein which certain learning outcomes are desired. But while the end result is the attainment of certain learning outcomes, Astin differentiated the theory of involvement to apply to the processes that facilitate development toward an outcome. By focusing on the processes rather than the outcomes, the theory of involvement warrants broad application to many contexts in the university, including study abroad as a method of student involvement and then global leadership development. Since study abroad inherently involves the process of studying abroad to achieve learning in that environment, and as such can be seen as an intervention, study abroad can be considered within Astin’s definition of involvement in a college setting.

Research on Student Involvement

In Astin’s (1993) foundational work in assessing college impact, What Matters in College, it seems that there are many positive developmental outcomes of student involvement during college. Astin used data from a national longitudinal study of over 27,000 students to assess five forms of involvement that contribute to intermediate outcomes during the college experience. These areas include “academic involvement, involvement with faculty, involvement with student peers, involvement in work, and other forms of involvement” (p. 365). Upon further exploration of these areas of involvement, it is apparent that none directly fulfills the concept of involvement as participation in clubs, organizations, athletics, and the like; the closest might be involvement with student peers, which does not specifically typify what that involvement
looks like. Knowing that Astin’s broad definition of involvement is a limitation of the ability to interpret Astin’s work for the current study, the concept of involvement as interaction and presence still contributes to this work. Astin’s study did find that student involvement had “tremendous potential…for enhancing most aspects of the undergraduate student’s cognitive and affective development” (p. 394). Forms of involvement that detracted from interaction, such as off-campus work, detracted from the outcomes. This is interesting to note since study abroad, as involvement, is isolating in that it takes students away from the campus; however, it offers the opportunity for interaction with new people, which may possibly still contribute to positive outcomes.

One study attempted to assess the leadership process perceptions of students who were not necessarily involved in intentional leadership programs, or who did not have, as the author put it, a “predisposition to leadership” (Thompson, 2006, p. 344). Over 400 juniors and seniors at a small, Midwest private liberal arts college chose to participate in the study; the demographic breakdown of those participants was similar to the institution as far as race, and showed a slightly higher participation rate for women than at the institution. The electronically distributed instrument was the Leadership Attitudes and Behaviors Scale III (LABS III) which “measures how students think about leadership, irrespective of their perceived experience in or predisposition to leadership- based activities or positions” (Thompson, 2006, p. 344), as well as a 5-point Likert scale of eight college resource categories that students could identify the strength of that resources’ influence on their perceptions of leadership. The study found that the strongest contributing college resources were interactions with individuals across campus, including faculty, staff and peers. According to Thompson (2006), this finding
suggests to student affairs practitioners that by “emphasizing a high degree of student peer involvement, as well as spending more time on quality advising and/or mentoring, student affairs personnel may directly facilitate the enhancement of students’ leadership behavioral preference development” (p. 348). In effect, interaction through involvement on campus positively influences students’ perceptions of the leadership process.

In 2003, Pike, Kuh, and Gonyea published their findings of a national study on how differences among institution mission types affect student development and learning outcomes, including the guiding question “Do levels of involvement, integration, and gains vary across different types of institutions” (p. 243) using data from 1500 students who completed the College Student Experience Questionnaire (CSEQ), Fourth Edition. The findings included that “Gains in learning and intellectual development were directly related to integration of diverse experiences and perceptions of the college environment” (p. 256). Thus, involvement experiences for students resulted in development toward outcomes. While not specific to the outcome of leadership development, the finding still supports that involvement can lead to developmental outcomes.

*Study Abroad as Student Involvement*

To be involved means to take the time to contribute to the greater good and to visibly act upon one’s values and beliefs. This combination of acts of citizenship, consciousness of self, and demonstrating congruence are distinct values in the SCM (HERI, 1996). These qualities are evident in study abroad experiences, which challenge students’ self-awareness, identity in context, and integrity (Lewin, 2009). These are also qualities that institutions of higher education wish to impart upon students. In *Deeper Learning in Leadership*, Roberts (2007) wrote that “…the complexity of higher education
today and the breadth of the student populations we serve call on us to consider more carefully, and take more seriously, the mission of fostering leadership potential in all students” (p. 1). Encouraging student involvement needs to be even more intentional – such as encouraging students to be involved in leadership development programs, and/or study abroad programs – for the university to truly live up to the aims of its mission. Intentional leadership development programming is a current trend in higher education, and the “result is that implicit notions to nurture civic responsibility and leadership ability are being replaced with explicit strategies to provide students with the knowledge and experiences to enhance their leadership capabilities” (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001, p. 15).

Study Abroad

Learning Outcomes

Students who study abroad should minimally achieve a broader worldview as a result of their experiences. “For many, college is a moratorium period, a phase when exploration of different academic disciplines, world views and social behaviors are explored. In this spirit, study abroad offers a robust exercise in cognitive, ethnic, moral and psychosocial development” (Stecker, 2007, pp. 9). The altered worldview resultant of study abroad – more in-depth and indicating a significant shift in the perspective of the study abroad student – is more one that is less likely to be achieved by only studying at the home institution. As written in the NAFSA: Association of International Educators (2008) task force report:

Study abroad programs provide opportunities for learning that are critical to the education of American college students and, over the long term, to the ability of
the United States to lead responsibly, collaborate abroad, and compete effectively in the global arena. Such learning includes foreign language skills, cross-cultural understanding, and an appreciation of our diverse and interconnected world—essential tools of citizenship and leadership in the 21st century. (p. 1)

This description alludes to leadership development, though leadership development is not typically identified as an outcome of study abroad experiences. But as leadership, and specifically global leadership, is explored more in the following pages, it becomes clear that the learning outcomes of study abroad mentioned above are also qualities of strong leadership and recognized global leadership capacities. In this way, connecting study abroad to leadership outcomes is a logical next step for the research to explore.

Models of Study Abroad Outcomes

Beyond general involvement theory, at this time there is no comprehensive theory to capture the study abroad experience, or around which study abroad programs can be designed. Perhaps this is because, as LaBrack (1999) writes, “…no process as complex as intercultural adjustment can ever be adequately summarized in one theory or taught using only one type of training technique” (p. 276). Each student, who brings his or her personal perspective and worldview to the location and is affected differently as a result, experiences study abroad uniquely. One option to try to capture the learning taking place is to consider Perry’s scheme of intellectual development. Stecker (2007) did consider Perry’s scheme, and posited that studying abroad moved students toward that “multiplicity position, in which multiple perspectives on a given issue are recognized and all opinions are seen as having comparable worth. This mindset is common amongst students studying abroad, particularly in those studying in developing countries” (p. 4).
As students are exposed to different cultures and lifestyles in their travels, particularly when they are exposed to those with fewer material possessions than the student is accustomed to having, they may begin to feel guilty and overcompensate by recognizing every perspective as valid and equal. Or depending on their developmental pace, they might move to relativism in which perspectives are critiqued and evaluated relative to each other. In any case, Perry’s scheme works in the context of study abroad as students experience and synthesize new information.

*The developmental model of intercultural sensitivity (DMIS).* More specific for use with study abroad might be the developmental model of intercultural sensitivity (DMIS), which “provides a structure for understanding how people experience cultural differences” (MDB Group, Inc., 2008, pp. 2). The MDB group business consulting firm uses the DMIS, created by Milton Bennett, co-founder of the Intercultural Communication Institute and director of the Intercultural Development Research Institute. The DMIS model shows six stages of intercultural perspectives that a person can vary between, ranging from Denial, Defense/Reversal and Minimization, which are considered ethnocentric, to Acceptance, Adaptation and Integration, which are considered ethnorelative. As the term suggests, in ethnocentric stages the individual views his or her own culture as central and superior and measures other cultures against it. Alternatively, in ethnorelative stages, differences among cultures are viewed positively and diversity is welcomed and appreciated.

To determine placement along the DMIS stages, a measurement tool was created, the intercultural development inventory (IDI) by Bennett and Hammer, based on Bennett’s DMIS. While the model provides structure for how people experience cultural
differences, the inventory is a tool for assessing how “a person or a group of people tends to think and feel about cultural difference” (MDB Group, Inc., 2008, pp. 1). The instrument is designed to help one understand his or her unique perspective, termed worldview, of cultural difference and therefore come to greater cognition and eventually gain better competence. The IDI instrument is “measuring how a person construes and organizes events, guided and limited by their cultural patterns” (MDB Group, Inc., 2008, pp. 1). The IDI is general enough to encompass the unique differences of each individual’s worldview, and is developmentally structured to recognize and encourage shifts along the stages of development. However, critics might argue that the highest ethnorelative stages of the DMIS fail to encompass all aspects of a highly competent intercultural individual.

Limitations of Study Abroad Literature

To date empirical research of study abroad learning outcomes is essentially nonexistent. Study abroad has been examined for language development outcomes, and the nature of programs such as home-stays, short-term study abroad, and other aspects of the experience. However, little is known about what students can gain that is unique to the study abroad experience, perhaps because study abroad can take so many different forms and methods. This study will begin to fill that gap in the existent literature by identifying if leadership development can be considered an outcome of study abroad experiences for students.

Developing Global Leadership through Study Abroad

As current cues for global leadership development in higher education come from business, it seems that study abroad programs are widely considered to be the best way to
promote students’ cultural intelligence and thus, intercultural competence. This reasoning comes from the business context, specifically from a 1991 survey of 135 expatriates using a career stage model. Of the respondents, “Nearly 90 percent said their overseas experience significantly increased the global perspective of their firm’s business operations” as well as recognizing significant improvements in intercultural communication and management skills (Oddou & Mendelhall, 1991, p. 30). Similar outcomes may hold for students in study abroad experiences. The limitation of that study, other than being grounded in business rather than student-focused, is that most of the expatriates studied were men; in addition, most were abroad for 1-2 years, if not longer, which is different from the traditional semester-long study abroad experience. In a case study analysis on how human resource managers can cultivate a global mindset, Oddou, Mendelhall, and Ritchie (2000) suggest that short-term experiences – the higher education equivalent of alternative break program or winter term study abroad – are obviously less intense than longer-term (i.e., semester- or year-long study abroad) experiences. Still, both types can be enhanced by applying skills strategically, such as “Managing uncertainty;” “Being inquisitive and having curiosity or interest in people who are different than oneself;” and “Being savvy and sensitive to cultural differences” (p. 161). The cases examined were the researchers’ and others’ short-term travel experiences, which were connected to identified global competences and strategically critiqued. The conclusion from these analyses was that while abroad, it is important that students actively engage in expanding their worldview rather than isolating themselves from their local surroundings out of fear, misunderstanding, or feeling overwhelmed. “In essence, in order to adopt a global perspective and the attendant leadership skills that go
along with such a perspective, one must move from one’s current psychological location and shift to another location from which to view the world” (p. 171).

Being able to better understand and develop intercultural competence is important to be effective in developing the trait with students in college. The positive leader attributes findings from the GLOBE study reinforce that intercultural competence as a necessary trait for developing global leadership. These positive leader attributes include such traits as Communicative and Team Builder (House, et al., 2004, p. 677).

Intercultural competence can also be related to the Community and Society levels of the SCM, specifically to those values of Controversy with Civility, Collaboration, Common Purpose and Citizenship (HERI, 1996), which cannot be achieved in a globalized environment without intercultural competence as a leadership trait. The overlap of these qualities is shown in Table 2.1. Study abroad has been identified as one method through which intercultural competence can be developed, and thus, global leadership.
Table 2.1: Mapping global leadership findings onto the social change model of leadership development values

<table>
<thead>
<tr>
<th>GLOBE study universally positive leadership traits</th>
<th>Global leadership literature values</th>
<th>Intercultural sensitivity values</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Intellectual</td>
<td>+ Knowledge of self</td>
<td>+ Cultural understanding</td>
</tr>
<tr>
<td>+ Empathetic</td>
<td>+ Knowledge of others</td>
<td>+ Cultural respect and appreciation</td>
</tr>
<tr>
<td>+ Agentic</td>
<td>+ Self-confidence</td>
<td>+ Cognitive empathy</td>
</tr>
<tr>
<td>+ Talented</td>
<td>+ Openness to change</td>
<td>+ Moral reasoning</td>
</tr>
<tr>
<td>+ Polite</td>
<td>+ Proactive</td>
<td>+ Self-awareness</td>
</tr>
<tr>
<td>+侠义的</td>
<td>+ Dispositional readiness</td>
<td>+ Self-regulation</td>
</tr>
<tr>
<td>+ Servant</td>
<td>+ Knowledge of others</td>
<td>+ Interpersonal skills</td>
</tr>
<tr>
<td>+ Democratic</td>
<td>+ Social skills</td>
<td>+ Values understanding</td>
</tr>
</tbody>
</table>

Summary

In this chapter, the connections between student leadership development, dimensions of global leadership, and study abroad, were explored. Through Astin’s (1999) theory of student involvement, study abroad was explored as a form of student involvement, and therefore, a method of developing student leadership capacities. Those leadership capacities are similar to those identified in the global leadership literature, which is still evolving from the business field. The research design for this study will be discussed in the next chapter.
Chapter 3: Methods

Overview

This study attempted to provide empirical evidence of the leadership outcomes, as defined by the Socially Responsible Leadership Scale – Revised Version 3 (SRLS-R3) of study abroad experiences for college seniors. This knowledge sought to address a gap in the existing literature, where the outcomes of study abroad programs are little known, especially those related to leadership development. The lack of knowledge about study abroad exists despite university administrators’ and potential employers’ focus on students developing global leadership capacities in an increasingly globalized context.

This chapter offers the research design used to address the research question and hypothesis, data source, variables, sampling strategy, and data collection and analysis plan. Reliability and validity of the data are discussed, and the chapter concludes by reviewing the assumptions fulfilled by the data set.

Purpose

This study examined the significance of study abroad experiences related to student leadership development outcomes, specifically related to the social change model of leadership development (SCM). This work reflects only the outcomes demonstrated by seniors, who have had the most opportunity to study abroad during their undergraduate years. Using data from the 2009 Multi-Institutional Study of Leadership (MSL), this study determined if participation in study abroad programs predicted significant positive variance in student leadership development. Student leadership development was measured by the SRLS-R3, an instrument that measures leadership capacity according to the values of the SCM (Tyree, 1998). The research question was:
Do study abroad experiences contribute significantly to the variance in the Socially Responsible Leadership Scale beyond on-campus experiences for college seniors?

*Research Design and Data Source*

An ex-post facto correlational design was determined to be the most appropriate research design for this study. The MSL collects data on the variables of interest here, and so functioned as the data source for this study. The MSL is particularly appropriate since its purpose is to “explore the role of higher education in developing leadership capacities with a focus on specific environmental conditions that foster leadership development” (National Clearinghouse for Leadership Programs (NCLP), 2009, *Study design*) where in this study the environment was study abroad experience. The rationale for the MSL offers empirical knowledge around a single theory of leadership – the SCM–specifically with the revised SRLS-R3 measure. The SRLS was formulated to measure the SCM (Tyree, 1998).

This study determined how much variance on the SRLS was predicted by study abroad participation. Since the data were gathered with primary purpose for the 2009 MSL, this analysis of certain measures in the 2009 administration is inherently ex-post facto. Additionally, study abroad as an independent variable cannot be manipulated for experimental and control groups, so an ex-post facto design is the best fit.

Traditionally Astin’s (1991) inputs, environments, outcomes (I-E-O) model is meant to examine how student inputs (pre-college measures) and the college environment affect student outcomes, and so it served well as the conceptual framework for this data. However, a true I-E-O model cannot be achieved since the MSL uses a cross-sectional
design where some elements are quasi pre-tests, taken retrospectively at the same time as the entire instrument (e.g., respondents are asked to think back to before they started college) rather than administered longitudinally before and after the experience. This modification is the case for the pre-test SRLS.

Hypothesis

Given that little work has been done to examine the outcomes of study abroad programs, let alone the student leadership development outcomes on the SCM, any hypothesis is weakly supported at this time. The literature review in Chapter 2 suggests that the outcomes of study abroad experiences are similar to the sought-after capacities of global leadership, and that the values of the SCM align with those global leadership capacities. Global leadership has been identified as an emerging field, coming from a business perspective and from culturally-bound interpretations of leadership and leadership development. The values of the SCM are possibly applicable globally but the international application of the SCM is currently limited, and so its applicability as a process model in cross-border scenarios is yet unknown. As such, the hypothesis stands that participation in study abroad experiences and the resultant learning outcomes are positive contributions toward student leadership development, and therefore, developing global leadership capacities.

There will be a significant positive contribution of study abroad to the variance in the Socially Responsible Leadership Scale for seniors beyond other forms of campus involvement and leadership training or education.
Sample

The following describes the data samples explored through this data set. The first is the institutional sample of participating institutions in the 2009 MSL. Then the participating students, particularly the seniors, of those institutions who were part of the 2009 data set are described below.

Institutional Participants and Strategy

The MSL, sponsored through the NCLP, launched in 2006. Since the initial administration of the MSL in 2006, it was administered again in 2009 and will continue as an annual survey. With each administration the core remains the same, but the entire instrument continues to be refined and updated to include new scales of interest (NCLP, 2009).

Every iteration of the MSL follows a similar method to solicit participant institutions. Any institution can apply to participate; many are solicited through several listservs, such as the NCLP, National Association of Student Personnel Administrators (NASPA), the American College Personnel Association (ACPA) Commission on Student Involvement, the Association of Leadership Educators (ALE), the International Leadership Association (ILA), or received the solicitation e-mail through a forwarded e-mail.

In 2008 an open call for interested institutions was put out for the 2009 administration of the MSL. In this administration 104 institutional applicants were accepted and enrolled in the study. Of those enrolled applicants, 103 were able to complete the survey and maintain all protocols including one from Mexico and one from Canada. This study excludes those responses from students attending non-US institutions
since this is intended to be a national study, and excludes the two participating community colleges since they do not enroll senior students. The institutional sample for this study consisted of 99 four-year institutions. The most recently collected 2009 MSL data is the source for this study.

Student Sample

In total, 337,482 individuals were invited to participate in the 2009 MSL from 104 institutions. Of those invited, 115,632 were returned, which is a 34% response rate. Of those returned, 83% or 96,692 completed at least 90% of the SRLS-R3 measure, which is the dependent variable in this study. From the national data set of 99 four-year institutions, 30% were reported to have senior class standing or above, which is the population to be measured for this study. Also of the national respondents, 89% reported to be traditional age (under 24 years of age) students, and 96% reported as being enrolled full-time at their institution. With a sample size of over 31,000 seniors who responded to this national survey, confidence in the generalizability of results is high (Pallant, 2007).

Instrument and Variables

The 2009 MSL study includes data collection for 15 demographic variables and over 30 pre-college variables to gain an understanding of the student upon entry to the university, as well as variables for environments and outcomes. Following the study design described above, variables for this study were selected according to the categories of input, environmental, and outcome variables. The independent variables comprise the inputs and environment, while the outcome is strictly the dependent variable of leadership.
Dependent Variable

The singular outcome of this study was leadership development as measured by the SRLS-R3, as shown in Table 3.1. The SRLS-R3 is a 72-item instrument, revised from the original longer instrument while remaining statistically valid and reliable. It measures the MSL’s theoretical framework, which is the SCM (Komives, Dugan, & Segar, 2006). This third version contains an expanded citizenship scale that raised reliability of that sub-scale from the 2006 study. The SRLS-R3’s 72 items are broken down into 8 scales, each framed upon one of the SCM’s C’s (as seen in Figure 1) (HERI, 1996). Each item is scored using a Likert scale scoring 1 (strongly disagree) to 5 (strongly agree).

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Items</th>
<th>Response Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omnibus SRLS-R3 post-test</td>
<td>Omnibus SRLS subscale, from items 20a through 20sss</td>
<td>From Strongly Disagree (1) to Strongly Agree (5)</td>
</tr>
</tbody>
</table>

20. Please indicate your level of agreement with the following items:

For the statements that refer to a group, think of the most effective, functional group of which you have been a part. This might be a formal organization or an informal study group. For consistency, use the same group in all your responses.
For the purposes of this study the omnibus SRLS test was used, which is the overall scale including each of the eight sub-scales. The omnibus scale including all sub-scales was preferential here since this study attempted to capture the responses to the SRLS-R3 as a whole, or the overall measure of the SCM. Any single sub-scale, while of interest, would not paint a comprehensive picture of the students’ leadership development outcomes, as the omnibus scale is able to show. The reliability for all 72 items comprising the omnibus SRLS-R3 post-test was measured using Chronbach’s alpha, and is shown to be .96 (Dugan & Komives, 2009), which is an acceptably high value for alpha (Pallant, 2007).

**Independent Variables**

*Input variables.* For this study, the input variables were (1) students’ pre-college involvements, (2) students’ pre-college leadership training or education, and (3) the students’ SRLS-R3 pre-test measure on leadership, as shown in Table 3.2. The first, students’ pre-college involvement, includes only those activities engaged with during high school. The second was indicated as part of a student engagement question, with ordinal level responses between 1 (*never*) to 4 (*very often*). These were treated as continuous data. The final input variable was the modified SRLS-R3 measure created for the MSL instrument. The pre-test for the omnibus SRLS-R3 is comprised of one item from each of the SRLS scales that most highly loaded on that particular scale. The pre-test scale reliability was a Chronbach alpha of .73 (Dugan & Komives, 2009), which is acceptably high and reliable. In determining the reliability of data for this sample of seniors, Chronbach’s alpha was calculated as part of the data analysis. The reliability of
the omnibus SRLS-R3 post-test of this sample was determined to be reliable with an alpha of .96, a value above the acceptable .70 and preferred .80 (Pallant, 2007).

*Environmental variables.* The environmental variables here included (1) two items on student involvement during college, (2) leadership training or education, and (3) any study abroad experience, as shown in Table 3.2. Students were asked how frequently they had been an involved member or held a leadership position in a college organization. Responses could range from 1 (*never*) to 5 (*much of the time*), and indicate a students’ involvement during college. The second environmental variable, leadership training or education was addressed in the MSL with a categorical reply of yes or no. Both of these questions are then further explored in the MSL instrument through a collapsed measure, but the specifics of the environment in question were not of interest here (for example, what type of leadership training or education?) so only the categorical reply was used.

*Study abroad.* The final environmental variable of study abroad is measured with the response to a question of student involvement in types of academic experiences (e.g., internships, capstone courses), as shown in Table 3.2. Students were asked if they had studied abroad. Their categorical reply (yes or no) was used for this independent variable. Noting that there are different types of study abroad, this study was not looking to address which type of study abroad might be significant but if study abroad, in whatever way the respondent defined it, was significant for the dependent variable.
<table>
<thead>
<tr>
<th>Block</th>
<th>Measure</th>
<th>Item</th>
<th>Response Choices</th>
<th>Variable Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>Pre-college Involvement</td>
<td>score</td>
<td>9. Looking back to <em>when you were in high school</em>, how often did you engage in the following activities: (Select one response for each)</td>
<td>From Never (1) to Very Often (4)</td>
</tr>
<tr>
<td></td>
<td>9a. Student council or student government</td>
<td></td>
<td></td>
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<td></td>
<td>9b. Pep Club, School Spirit Club, or Cheerleading</td>
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<td></td>
<td>9c. Performing arts (ex. band, orchestra, dance, drama, art)</td>
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<td></td>
<td>9d. Academic clubs (ex. science fair, math club, debate club, foreign language club, chess club, literary magazine)</td>
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<td></td>
<td>9e. Organized sports (ex. Varsity, club sports)</td>
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<td></td>
<td>9f. Leadership positions in student clubs, groups, sports (ex. Officer in a club or organization, captain of athletic team, first chair in musical group, section editor of newspaper)</td>
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<tr>
<td></td>
<td>Pre-college leadership training or education</td>
<td>score</td>
<td>10. Looking back to <em>before you started college</em>, how often did you engage in the following activities: (Select one response for each)</td>
<td>From Never (1) to Very Often (4)</td>
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<tr>
<td></td>
<td>10g. Participated in training or education that developed your leadership skills</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>SRLS omnibus pre-test</td>
<td>score</td>
<td>Omnibus SRLS pre-test subscale, from items 11a-h</td>
<td></td>
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<tr>
<td></td>
<td>11. Looking back to <em>before you started college</em>, please indicate your level of agreement with the following items:</td>
<td></td>
<td>From Strongly Disagree (1) to Strongly Agree (5)</td>
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<tr>
<td></td>
<td>11a. Hearing differences in opinions enriched my thinking</td>
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<td></td>
<td>11b. I had low self-esteem</td>
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<td></td>
<td>11c. I worked well in changing environments</td>
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<tr>
<td>Block</td>
<td>Measure</td>
<td>Item</td>
<td>Response Choices</td>
<td>Variable Type</td>
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<td></td>
<td></td>
<td>11d. I enjoyed working with others toward common goals</td>
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<td></td>
<td></td>
<td>11e. I held myself accountable for responsibilities I agree to</td>
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<td></td>
<td></td>
<td>11f. I worked well when I knew the collective values of a group</td>
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<td></td>
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<td>11g. My behaviors reflected my beliefs.</td>
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<td></td>
<td></td>
<td>11h. I valued the opportunities that allowed me to contribute to my community.</td>
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<tr>
<td>Block 2</td>
<td></td>
<td>15. <strong>Since starting college, how often have you:</strong></td>
<td>From Never (1) to Much of the Time (5)</td>
<td>Environments</td>
</tr>
<tr>
<td>College involvement and leadership positions</td>
<td>score</td>
<td>15a. Been an involved member in college organizations?</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>15b. Held a leadership position in a college organization(s)? (ex. officer in a club or organization, captain of an athletic team, first chair in a musical group, section editor of newspaper, chairperson of committee)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College leadership training or education</td>
<td>category</td>
<td>19. Since starting college, have you ever participated in a leadership training or leadership education experience of any kind (ex. leadership conference, alternative spring break, leadership course, club president’s retreat)?</td>
<td>1=Yes 2=No</td>
<td>Environments</td>
</tr>
<tr>
<td>College leadership training or education</td>
<td>Score</td>
<td>19a. <strong>Since starting college, to what degree have you been involved in the following types of leadership training or education?</strong></td>
<td>From Never (1) to Often (4)</td>
<td>Environments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>19a1. Leadership Conference</td>
<td></td>
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<td></td>
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<td>19a2. Leadership Retreat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block</td>
<td>Measure</td>
<td>Item</td>
<td>Response Choices</td>
<td>Variable Type</td>
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<td>19a3.</td>
<td>Leadership Lecture/Workshop Series</td>
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<td>19a4.</td>
<td>Positional Leader Training (ex. Treasurer’s training, Resident Assistant training, Student Government training)</td>
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<td>19a5.</td>
<td>Leadership Course</td>
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<td>19a6.</td>
<td>Short-Term Service Immersion (ex. alternative spring break, January term service project)</td>
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<td>19a7.</td>
<td>Emerging or New Leaders Program</td>
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<td>19a8.</td>
<td>Living-Learning Leadership Program</td>
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<td></td>
<td></td>
<td>19a9.</td>
<td>Peer Leadership Educator Team</td>
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<td></td>
<td></td>
<td>19a10.</td>
<td>Outdoor Leadership Program</td>
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<td></td>
<td></td>
<td>19a11.</td>
<td>Women’s Leadership Program</td>
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<td></td>
<td></td>
<td>19a12.</td>
<td>Multicultural Leadership Program</td>
<td></td>
</tr>
<tr>
<td>College leadership training or education</td>
<td>category</td>
<td>19b. <strong>Since starting college</strong>, have you been involved in the following types of leadership training or education?</td>
<td>1=Yes 2=No</td>
<td>Environments</td>
</tr>
<tr>
<td>19b1.</td>
<td>Leadership Certificate Program</td>
<td></td>
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<tr>
<td>19b2.</td>
<td>Leadership Capstone Experience</td>
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<td>19b3.</td>
<td>Leadership Minor</td>
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<tr>
<td>19b4.</td>
<td>Leadership Major</td>
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<tr>
<td>College leadership training or education</td>
<td>score</td>
<td>19c. Since starting college, to what extent has participation in the following types of training or education assisted in the development of your leadership ability?</td>
<td>From Not At All (1) to A Great Deal (4)</td>
<td>Environments</td>
</tr>
<tr>
<td>Block</td>
<td>Measure</td>
<td>Item</td>
<td>Response Choices</td>
<td>Variable Type</td>
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<tr>
<td>19c1</td>
<td>Leadership Conference</td>
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<tr>
<td>19c2</td>
<td>Leadership Retreat</td>
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<tr>
<td>19c3</td>
<td>Leadership Certificate Program</td>
<td></td>
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<tr>
<td>19c4</td>
<td>Leadership Lecture/Workshop Series</td>
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<tr>
<td>19c5</td>
<td>Positional Leader Training (ex. Treasurer’s training, Resident Assistant training, Student Government training)</td>
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<tr>
<td>19c6</td>
<td>Leadership Capstone Experience</td>
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<tr>
<td>19c7</td>
<td>Leadership Course</td>
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<tr>
<td>19c8</td>
<td>Leadership Minor</td>
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<tr>
<td>19c9</td>
<td>Leadership Major</td>
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<tr>
<td>19c10</td>
<td>Short-Term Service Immersion (ex. alternative spring break, January term service project)</td>
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<tr>
<td>19c11</td>
<td>Emerging or New Leaders Program</td>
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<tr>
<td>19c12</td>
<td>Living-Learning Leadership Program</td>
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<tr>
<td>19c13</td>
<td>Peer Leadership Educator Team</td>
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<tr>
<td>19c14</td>
<td>Outdoor Leadership Program</td>
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<tr>
<td>19c15</td>
<td>Women’s Leadership Program</td>
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<tr>
<td>19c16</td>
<td>Multicultural Leadership Program</td>
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</tbody>
</table>

**Block 3**

<table>
<thead>
<tr>
<th>Study Abroad category</th>
<th>7. Which of the following have you engaged in during your college experience:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1=Yes</td>
</tr>
<tr>
<td></td>
<td>2=No</td>
</tr>
</tbody>
</table>

7a. Study abroad
Reliability

Pilot tests. Prior to the first administration of the MSL one qualitative and two web-based pilot tests were conducted at the University of Maryland to establish reliability. The first pilot was tested with 15 selected undergraduates representing a variety of demographics and involvement with leadership on campus. This initial qualitative pilot addressed some of the item language as well as the length to respond, which student feedback indicated was too long. A second pilot was conducted after revisions to length, and this time administered randomly to 3,000 undergraduates. This second pilot indicated an improved time of 25-30 minutes, as opposed to 20-55 minutes in the initial pilot. The second pilot also offered response rates of about 23%, and indicated drop-off points during the online survey. This information allowed the researchers to further address the length, the order of the questions to distribute response drop-off more evenly among questions, and the reliabilities of the scales.

Another pilot test was conducted in June 2008 before the administration of the 2009 MSL to establish reliability and validity for the newly introduced measures. Again, 3,000 undergraduates at the University of Maryland were randomly selected and a 22% response rate was achieved.

Internal consistency reliability. After making the necessary changes for external reliability according to the second pilot test, the internal consistency reliability was also addressed. The research team relied upon Cronbach’s Alpha to assess the intercorrelations among items tested within the same measure or scale. For the scales within the SRLS-R3 instrument, Cronbach’s Alpha ranged from .73 for the omnibus SRLS pre-test, to .96 (Dugan & Komives, 2009) for the omnibus SRLS, both of which
were used for this study. The Cronbach’s Alpha scores for this, and all, of the measures in the MSL are shown in Appendix B. Overall, these scores are considered high and establish strong internal reliability for the MSL instrument, meaning that the measurement of each item and scale is consistent among various respondents.

**Validity**

*External validity.* The selection method for participating institution contributes to the external validity of the MSL 2009 study. Although not a random sample, the self-selected institutions were representative of a wide variety of geographic locales, Carnegie institution types, sizes, and population-specific types were chosen. Due to this selection method, the results from the national sample can be generalized to broad populations.

*Internal validity.* The MSL Instrument has been determined to have internal construct validity. Construct validity indicates both convergent validity and discriminant validity, which shows agreement among measures that should agree, and a lack of agreement among measures that are not theoretically related. The MSL attains construct validity by specifying the theories that inform each measure of the instrument, and seeing data that align with other surveys that measure those same theoretical constructs. For the 2009 MSL, the omnibus SRLS was found to correlate at .60 and higher with the Student Leadership Practices Inventory (Kouzes & Posner, 2007), and similar results were found with the Multifactor Leadership Questionnaire, which measures transformational, transactional, and avoidant leadership styles. Validation for the SRLS-R3 can be found in Appendix C.
Procedures

Data Collection

Data was collected between January 2009 and April 2009, during a self-selected three week time period. The web-based instrument is administered by the independent research organization the Center for Student Studies (CSS), a division of the Survey Sciences Group, LLC, who has extensive experience in conducting multi-institutional web-based surveys.

Prior to initial contact with respondents, each institution had to obtain their version of institution research or human subjects approval for participation. This process varied by institution, and so the informed consent form seen by each participant varied by institutional standards. At the University of Maryland, College Park, initial Institutional Review Board (IRB) approval was granted in October 2005 and has since been renewed in a timely manner. The most recent IRB document is attached in Appendix A, and was granted on August 11, 2009.

After human subjects approval, up to three personalized emails were sent to each potential respondent through the identified gatekeeper at each participating institution to encourage participation. Each potential respondent could opt-out by simply replying to the e-mail at any time. To achieve the desired response rates, incentives for participation were available nationally and by institution.

Data Analysis

After gaining approval from the Institutional Review Board (IRB) at the University of Maryland – College Park, the researcher gained access to the 2009 MSL data and was able to run the analysis. First the data were filtered to the intended sample
by eliminating first-, second-, and third-year students, as well as community colleges and international institutions. Then the researcher ran an analysis of descriptive statistics (gender, race/ethnicity, first generation status, socioeconomic status) to determine the generalizability of results to populations beyond the sample.

To ensure none of the variables in the model were highly correlated with each other, the researcher then tested for correlation among variables. Pallant (2007) suggests that the independent variables show above a .3 correlation relationship with the dependent variable. In this study, the omnibus SRLS pre-test did correlate with the omnibus SRLS test at .443, because indeed those two scales are measuring the same construct. The other correlations between independent and dependent variables were below the suggested .3 correlation value. Multicollinearity between independent variables was also considered using the Variance inflation factor (VIF) in the Coefficients output. VIF indicates how much of the variance of the specified independent variable is explained by other independent variables, and should be below 10 (Pallant, 2007). In the case of this sample, no values were observed to be above 5.072, and so multicollinearity does not seem to be occurring. Since the variables do not seem to be highly correlated, and the scale is reliable, the regression analysis was conducted next.

A hierarchical regression analysis was modeled to determine the proximal effect of study abroad on the SRLS-R3 leadership measure. Using hierarchical regression as the data analysis was appropriate since there is a theoretical ground for creating the blocks – the I-E-O model – and since this allows for the controlling of the contributions of each blocked variable and its subsets. In general, multiple regression is a method of analysis that is “ideal for the investigation of more complex, real-life, rather than
laboratory based, research questions” (Pallant, 2007, p. 146) and allows for sophisticated insight to the contributions of the independent variables.

The hierarchical regression was modeled after Astin’s (1991) college impact model, and is shown in Figure 3.1 below. The items identified in Figure 3.1 can be found in Table 3.2. The inputs, or initial independent variables, were those factors possibly contributing to leadership outcomes. These included the following blocks in the prescribed order; order is important since the I-E-O model calls for the independent variables most distant from the dependent variable be entered first, building to the variable closest or assumed to have the most direct relationship as the final block.

Figure 3.1: Hierarchical regression blocks

<table>
<thead>
<tr>
<th>Block 1: Input Variables</th>
<th>Block 2: College Environment</th>
<th>Block 3: College Environment (Study Abroad)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-college involvement (Q9a-f)</td>
<td>College involvement • Frequency of membership (Q15a) or leadership position(s) (Q15b) held in a college organization</td>
<td>Student engagement in study abroad (Q7a)</td>
</tr>
<tr>
<td>Pre-college leadership training or education (Q10g)</td>
<td>College leadership training or education • Leadership training or education experience participation (Q19, Q19a, Q19b, Q19c)</td>
<td></td>
</tr>
<tr>
<td>SRLS-R3 omnibus pre-test (Q11a-h)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The last block was if the senior has, or has not, studied abroad. Study abroad is not typically seen as a method of student involvement, and therefore, contributory toward student learning, since study abroad does not occur on-campus. Still, this environment has the potential to greatly impact student learning during one’s undergraduate
experience, especially related to leadership learning outcomes. Thus, the leadership outcome (DV) measured was the student response to the omnibus SRLS-R3. This indicated senior student’s capacity for leadership according to the values of the SCM.

Due to the large nature of this national data set, the significance level for this study was set at p < .01. Since the data sample is indicative of the population being studied, and the measures were found to be valid and reliable, a more conservative significance level was appropriate and strengthened the results. With this significance level, the hypothesis of interest was tested, and will be rejected if the values do not indicate a significant contribute to the variance in the SRLS-R3 post-test.

Summary

This chapter identified an ex-post facto correlational design as the most appropriate for this study, following Astin’s (1991) college impact model of inputs, environments, and outcomes. For this study, inputs are pre-college involvement, leadership training or education, and self-rated leadership using the SRLS-R3 pre-test. The contributing environments are college involvement and college leadership training or education, and finally study abroad experiences. The outcome is the omnibus SRLS-R3 post-test, the dependent variable. A hierarchical regression model was used to determine if the change in variance on the omnibus SRLS-R3 post-test was significant at p<.01. The data source, the MSL, and its sampling and data collection methods were examined, as well as the SRLS-R3 measure. Reliability and validity for the MSL 2009 data, and for the specific population data of seniors, were established, and finally potential limitations of the study were identified.
Chapter 4: Findings

A sample was identified and statistically analyzed to determine if study abroad experiences contribute significantly to the Socially Responsible Leadership Scale – Revised Version 3 (SRLS-R3) for college seniors. In this chapter of the study’s findings, sample characteristics and demographic characteristics will be explored first, followed by data from the regression analysis. The chapter concludes with a model summary.

Sample Characteristics

The 2009 administration of the Multi-Institutional Study of Leadership provided the sample of 31,823 seniors as respondents. From those 31,823 cases, 343 did not respond to the study abroad question so 31,480 cases were available for study. Some analyses may show fewer than the total number of cases due to pairwise deletion, where cases missing the data required for that analysis were deleted (Pallant, 2007). Table 4.1 shows how many of the 31,480 respondents did, and did not, study abroad, as well as the percentage.

Table 4.1
Frequencies and means of study abroad

<table>
<thead>
<tr>
<th>Study Abroad</th>
<th>N</th>
<th>%</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>8,004</td>
<td>25.42%</td>
<td>4.01 (.35)</td>
</tr>
<tr>
<td>No</td>
<td>23,476</td>
<td>74.57%</td>
<td>3.97 (.37)</td>
</tr>
<tr>
<td>Total</td>
<td>31,480</td>
<td>99.99%</td>
<td>3.98 (.36)</td>
</tr>
</tbody>
</table>

For this entire sample, the mean for the omnibus SRLS pre-test was 3.85 (SD=.51) and a mean of 3.98 (SD=.36) for the omnibus SRLS post-test. The group that responded Yes to study abroad had a mean of 4.01 (SD=.35) for the omnibus SRLS-R3, and the group that responded No to study abroad had a mean of 3.97 (SD=.37) for the omnibus SRLS-R3.
Demographic Characteristics

From the sample, 64.16% (n=17,054) were female and 35.83% (n=9,524) were male. These figures show slightly more women than the proportions of all undergraduate students by gender reported for Fall 2007, which showed 42.83% (n=7,815,900) male students and 57.17% (n=10,432,200) female students (U.S. Department of Education, 2009a). Of the female respondents in this sample, 28.32% (n=4,829) studied abroad while 71.68% (n=12,225) did not; of the male respondents, 20.72% (n=1,973) studied abroad while 79.28% (n=7,551) did not study abroad.

The race and ethnicity breakdown of the group was as follows: 73.92% (n=19,637) were White/Caucasian; this figure is slightly higher than the 2007-2008 undergraduate student profile which cited 61.8% White students (U.S. Department of Education, 2009b). The Department of Education figures come from the National Postsecondary Student Aid Study, which surveyed 114,000 undergraduates attending 1,600 colleges and universities in 2007-08. Of the sample of 31,480 students for this study, Middle Eastern students made up 0.68% (n=181). African American/Black made up 5.40% (n=1,435), which is slightly below the reported 14.0% from the U.S. Department of Education (2009b). The U.S. Department of Education (2009b) reports 0.8% as American Indian, while this sample found 0.51% (n=135) were American Indian/Native Alaskan. Likewise, 6.74% (n=1,790) in this study were Asian American/Asian while the U.S. Department of Education (2009b) reported 5.9% as Asian. The U.S. Department of Education (2009b) reports Hispanic students make up 14.1%, while in this sample 3.94% (n=1,048) were Latino/Hispanic; more than one race made up 2.4% for the U.S. Department of Education (2009b), while 7.42% (n=1,970)
identified as Multiracial in this sample. Finally, the U.S. Department of Education (2009b) reported 0.3% as Other, and in this sample 1.39% (n=370) indicated their desired response was not included in the options. Many of the figures from this sample are similar to the figures from the U.S. Department of Education’s data for 2007-2008. Race and ethnicity figures that are different between the two samples might be attributed to this sample only including seniors at four-year institutions. Table 4.2 includes the race and ethnicity characteristics of this sample, and also indicates the percentage of each group that studied abroad.

First-generation students make up 15.55% (n=4,104), while 84.45% (n=22,267) were non-first-generation. Of the first-generation students, 14.69% (n=603) studied abroad while 85.31% (n=3,501) did not, and of those non-first-generation students 27.68% (n=6,164) studied abroad while 72.32% (n=16,103) did not.

Socioeconomic status was also considered by the respondent’s best estimate of the parent(s)’ or guardian(s)’ combined total annual income. Income was estimated to be less than $12,500 for 5.21% (n=1,383), income between $12,500 - $24,999 for 5.87% (n=1,560), income between $25,000 - $39,999 for 7.81% (n=2,075), income between $40,000 - $54,999 for 8.54% (n=2,267), income between $55,000 - $74,999 for 11.80% (n=3,113), income between $75,000 - $99,999 for 12.07% (n=3,208), income between $100,000 - $149,999 for 14.59% (n=3,876), income between $150,000 - $199,999 for 6.41% (n=1,702), and income $200,000 and over for 9.27% (n=2,433). In addition 11.78% (n=3,130) indicated they did not know, and 6.82% (n=1,812) indicated they would rather not say. Again, Table 4.2 includes the income characteristics and also indicates the percentage of each group who did or did not study abroad.
Table 4.2  
*Demographic characteristics of respondents*

<table>
<thead>
<tr>
<th>Respondent Characteristics</th>
<th>Total</th>
<th>Study Abroad</th>
<th>Did Not Study Abroad</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>17,054</td>
<td>4,829</td>
<td>12,225</td>
</tr>
<tr>
<td></td>
<td>64.16%</td>
<td>28.32%</td>
<td>71.68%</td>
</tr>
<tr>
<td>Male</td>
<td>9,524</td>
<td>1,973</td>
<td>7,551</td>
</tr>
<tr>
<td></td>
<td>35.83%</td>
<td>20.72%</td>
<td>79.28%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>19,637</td>
<td>5,314</td>
<td>14,323</td>
</tr>
<tr>
<td></td>
<td>73.92%</td>
<td>27.06%</td>
<td>72.94%</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>181</td>
<td>34</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td>0.68%</td>
<td>18.78%</td>
<td>81.22%</td>
</tr>
<tr>
<td>African American/Black</td>
<td>1,435</td>
<td>169</td>
<td>1,266</td>
</tr>
<tr>
<td></td>
<td>5.40%</td>
<td>11.77%</td>
<td>88.22%</td>
</tr>
<tr>
<td>American Indian/Alaskan</td>
<td>135</td>
<td>20</td>
<td>115</td>
</tr>
<tr>
<td></td>
<td>0.51%</td>
<td>14.81%</td>
<td>85.19%</td>
</tr>
<tr>
<td>Native</td>
<td>1,790</td>
<td>467</td>
<td>1,323</td>
</tr>
<tr>
<td></td>
<td>6.74%</td>
<td>26.08%</td>
<td>73.91%</td>
</tr>
<tr>
<td>Asian American/Asian</td>
<td>1,048</td>
<td>222</td>
<td>826</td>
</tr>
<tr>
<td></td>
<td>3.94%</td>
<td>21.18%</td>
<td>78.81%</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>1,970</td>
<td>467</td>
<td>1,503</td>
</tr>
<tr>
<td></td>
<td>7.42%</td>
<td>23.71%</td>
<td>76.29%</td>
</tr>
<tr>
<td>Multiracial</td>
<td>370</td>
<td>103</td>
<td>267</td>
</tr>
<tr>
<td></td>
<td>1.39%</td>
<td>27.83%</td>
<td>72.16%</td>
</tr>
<tr>
<td>Not included above</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Generation Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Generation</td>
<td>4,104</td>
<td>603</td>
<td>3501</td>
</tr>
<tr>
<td></td>
<td>15.55%</td>
<td>14.69%</td>
<td>85.32%</td>
</tr>
<tr>
<td>Non-First Generation</td>
<td>22,267</td>
<td>6,164</td>
<td>16,103</td>
</tr>
<tr>
<td></td>
<td>84.44%</td>
<td>27.68%</td>
<td>72.32%</td>
</tr>
<tr>
<td>Parental Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $12,500</td>
<td>1,383</td>
<td>239</td>
<td>1,144</td>
</tr>
<tr>
<td></td>
<td>5.21%</td>
<td>17.28%</td>
<td>82.72%</td>
</tr>
<tr>
<td>$12,500 - $24,9995.2%</td>
<td>1,560</td>
<td>251</td>
<td>1,309</td>
</tr>
<tr>
<td></td>
<td>5.87%</td>
<td>16.08%</td>
<td>83.91%</td>
</tr>
<tr>
<td>$25,000 - $39,9995.8%</td>
<td>2,075</td>
<td>344</td>
<td>1,731</td>
</tr>
<tr>
<td></td>
<td>7.81%</td>
<td>16.57%</td>
<td>83.42%</td>
</tr>
<tr>
<td>$40,000 - $54,9997.8%</td>
<td>2,267</td>
<td>470</td>
<td>1,797</td>
</tr>
<tr>
<td></td>
<td>8.54%</td>
<td>20.73%</td>
<td>79.26%</td>
</tr>
<tr>
<td>$55,000 - $74,999</td>
<td>3,113</td>
<td>693</td>
<td>2,420</td>
</tr>
<tr>
<td></td>
<td>11.80%</td>
<td>22.26%</td>
<td>77.74%</td>
</tr>
<tr>
<td>$75,000 - $99,999</td>
<td>3,208</td>
<td>803</td>
<td>2,405</td>
</tr>
<tr>
<td></td>
<td>12.07%</td>
<td>25.03%</td>
<td>74.97%</td>
</tr>
<tr>
<td>$100,000 - $149,999</td>
<td>3,876</td>
<td>1,166</td>
<td>2,721</td>
</tr>
<tr>
<td></td>
<td>14.59%</td>
<td>29.79%</td>
<td>70.20%</td>
</tr>
<tr>
<td>$150,000 - $199,999</td>
<td>1,702</td>
<td>547</td>
<td>1,155</td>
</tr>
<tr>
<td></td>
<td>6.41%</td>
<td>32.14%</td>
<td>67.86%</td>
</tr>
<tr>
<td>$200,000 and over</td>
<td>2,433</td>
<td>953</td>
<td>1,480</td>
</tr>
<tr>
<td></td>
<td>9.27%</td>
<td>39.16%</td>
<td>60.83%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>3,130</td>
<td>888</td>
<td>2,242</td>
</tr>
<tr>
<td></td>
<td>11.78%</td>
<td>28.37%</td>
<td>71.63%</td>
</tr>
<tr>
<td>Rather not say</td>
<td>1,812</td>
<td>453</td>
<td>1,359</td>
</tr>
<tr>
<td></td>
<td>6.82%</td>
<td>25.00%</td>
<td>75.00%</td>
</tr>
</tbody>
</table>

Regression Analysis

Table 4.3 shows the model summary with each block of the regression entered hierarchically. The significance level for this study was set to p<0.01, since this allows for a stronger interpretation of results with this large data set, as compared to a p<0.05, which would allow more room for error. The R Square indicates the percent of variance...
of the dependent variable, the omnibus SRLS in this case, explained by the model at that stage. The final model shows that input variables, the college environment, and then study abroad explain 30.1% of the variance. Table 4.3 also shows the R Square Change value, which is additional variance contributed by that particular block to the model. For instance, Block 1 is significant with the omnibus SRLS pre-test contributing the most variance. Block 2 (i.e., the college environment) contributes 9.1% additional variance of the 30.1% total variance in SRLS-R3 explained by input and college environment but is not significant. Study abroad in Block 3 does not show any additional variance. Table 4.4 shows each variable and its’ variance contribution included in each regression block.

Table 4.3
Model summary

<table>
<thead>
<tr>
<th>Block Description</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>R Square Change</th>
<th>F Change</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Input Variables</td>
<td>.459</td>
<td>.210</td>
<td>.162</td>
<td>.210</td>
<td>4.328</td>
<td>.000*</td>
</tr>
<tr>
<td>2. College Environment</td>
<td>.549</td>
<td>.301</td>
<td>.054</td>
<td>.091</td>
<td>.473</td>
<td>.987</td>
</tr>
<tr>
<td>3. Study Abroad</td>
<td>.549</td>
<td>.301</td>
<td>.045</td>
<td>.000</td>
<td>.000</td>
<td>.990</td>
</tr>
</tbody>
</table>

*p<.01

Table 4.4
Predictors for omnibus SRLS-R3

<table>
<thead>
<tr>
<th>Block/Variable</th>
<th>R² Change</th>
<th>F Change</th>
<th>Beta</th>
<th>β</th>
<th>Sig</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Input Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Looking back to when you were in high school, how often did you engage in the following activities:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student council or student government</td>
<td>-.009</td>
<td>933</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pep Club, School Spirit Club, or Cheerleading</td>
<td>.000</td>
<td>999</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performing arts</td>
<td>.041</td>
<td>655</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic cubs</td>
<td>-.001</td>
<td>911</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organized sports</td>
<td>-.015</td>
<td>876</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership positions in student clubs, group, sports</td>
<td>-.009</td>
<td>932</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Looking back to before you started college, how often did you engage in the following activities:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participated in training or education that developed your leadership skills</td>
<td>.055</td>
<td>571</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Omnibus SRLS Pre-test

| Omnibus SRLS Pre-test | .379 | .000 | * |

### 2. College Environment

#### Since starting college, how often have you

| Been an involved member in college organizations | .087 | .498 |
| Held a leadership position in college organization(s) | .048 | .715 |

#### Since starting college, to what degree have you been involved in the following types of leadership training or education?

| Leadership Conference | .013 | .932 |
| Leadership Retreat | -.012 | .931 |
| Leadership Lecture/Workshop Series | .044 | .783 |
| Positional Leader Training | .043 | .775 |
| Leadership Course | .04 | .974 |
| Short-term Service Immersion | -.009 | .939 |
| Emerging or New Leaders Program | -.016 | .901 |
| Living/Learning Leadership Program | .010 | .932 |
| Peer Leadership Educator Team | .031 | .806 |
| Outdoor Leadership Program | -.028 | .857 |
| Women’s Leadership Program | -.011 | .938 |
| Multicultural Leadership Program | -.027 | .849 |

#### Since starting college, to what extent has participation in the following types of training or education assisted in the development of your leadership ability?

| Leadership Conference | .053 | .687 |
| Leadership Retreat | .009 | .941 |
| Leadership Certificate Program | -.086 | .588 |
| Leadership Lecture/Workshop Series | .028 | .831 |
| Positional Leader Training | -.008 | .945 |
| Leadership Capstone Experience | .158 | .296 |
| Leadership Courses | .005 | .969 |
| Short-Term Service Immersion | .072 | .526 |
| Emerging or New Leaders Program | -.020 | .892 |
| Living/Learning Leadership Program | -.096 | .532 |
| Peer Leadership Educator Team | -.033 | .804 |
| Outdoor Leadership Program | .043 | .817 |
| Women’s Leadership Program | .050 | .783 |
| Multicultural Leadership Program | .115 | .508 |

### 3. Study Abroad

#### Which of the following have you engaged in during your college experience:

| Study Abroad | .001 | .990 |

*p<.01
Hypothesis

The hypothesis states that there will be a significant positive contribution of study abroad to the variance in the Socially Responsible Leadership Scale for seniors beyond other forms of campus involvement and leadership training or education. The hierarchical regression model is designed to test this hypothesis by first observing the significance of input variables, then the college environment, and finally study abroad.

Block 1: Input Variables

Shown in Table 4.4, the first block in its entirety accounted for 21% of variance of the dependent variable. This block included high school involvement in activities such as student council or student government; pep club, school spirit club, or cheerleading; performing arts; academic clubs; organized sports; and leadership positions in student clubs, groups, sports. This block also included pre-college leadership training or education, and the measure of the omnibus SRLS pre-test. Of those variables, the only significant contributor was the omnibus SRLS pre-test, which has a standardized Beta weight of .379.

Block 2: College Environment

The second block as a whole was not found to be a significant contributor, nor was any one variable within the block, as is evident in Table 4.4. Variables in the second block included general in-college involvement and leadership positions, various types of leadership training and education, and if those types of leadership training and education assisted in the development of the respondent’s leadership ability. The block as a whole contributed 9.1% of the total variance in the dependent variable, which is 30.1%, but neither the block nor any individual variable was found to be significant.
Block 3: Study Abroad

The final block of study abroad, for which the variable itself constituted the entire block, was not found to be significant. The block contributed no variance to the total 30.1% variance in the dependent variable, and there was no significance of variable in the model.

Post-hoc analysis

A post-hoc analysis of the data was conducted to see if, in fact, there was a difference in the mean scores of the omnibus SRLS-R3 measure between the two independent variable groups of having, or having not, studied abroad. Post-hoc comparisons are useful when there may be a Type I error, also known as the error of rejecting the hypothesis when the hypothesis is, in fact, true. This can be the case when a large number of different comparisons are being made. In this analysis there were a large number of independent variables being tested in the regression analysis, possibly confounding the results. A simpler statistical analysis of the study abroad variable and the outcome variable would show if there was, in fact, any statistical significance of the independent variable on the dependent variable.

The post-hoc comparison was conducted using an independent samples t-test, which compares the mean scores of two different groups; here those groups were categorized by study abroad responses. One group responded Yes to study abroad, and the comparison group responded No to study abroad. The omnibus SRLS-R3 post-test served as the dependent variable. Assumptions were tested and an effect size was calculated for the post-hoc analysis.
The assumption of homogeneity of variance was tested using first the Levene statistic. The Levene statistic was found to have a significance of .002, which is less than the suggested .05 (Pallant, 2007). Since the assumption of homogeneity of variance violated the alternative t-test values, equal variances not assumed, will be the reported values. The independent samples t-test was found to be significant at p<.05. There was significant difference in scores on the omnibus SRLS-R3 between those who did study abroad (M=4.01, SD=.35) and those who did not study abroad (M=3.97, SD=.37); t (31478) = 8.23, p = .002 (2-tailed). The magnitude of the difference in the mean (mean difference = .04, 95% Confidence Interval = .03 to .05) was very small (eta squared = .002).

Table 4.5  
Independent samples test

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
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</thead>
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<tr>
<td>Levene's Test</td>
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<td>df</td>
</tr>
<tr>
<td>Omnibus SRLS</td>
<td>9.697</td>
<td>.002</td>
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</tbody>
</table>

Summary

This chapter began by exploring some of the sample characteristics and expanded upon the demographic characteristics of the sample. A hierarchical regression analysis followed, with a discussion of the hypothesis tested. The final chapter will discuss the findings of this data and offer suggestions for future research in this topical area.
Chapter 5: Discussion

This study aimed to determine if study abroad experience was a significant contributor to student leadership development for college seniors. Review of current literature led to a hypothesis, which was tested using hierarchical regression analysis. This chapter examines the findings of that analysis, identifies limitations of the study, and concludes with implications for practice and suggested areas of further research.

Summary of Findings

From the review of current literature came the hypothesis that study abroad would be significant in predicting variance on the Socially Responsible Leadership Scale – Revised Version 3 (SRLS – R3). The hypothesis was tested using a hierarchical regression arranged into three blocks of variables; 30.1% of the variance was predicted from these three blocks. The first block was composed of eight input variables that contributed to leadership development pre-college; the second block measured leadership development during the college environment through an additional 28 variables. Finally, the third block measured with one categorical variable if the student had, or had not, studied abroad. Of the three blocks, only the first block was found to be significant. Input variables contributed 21% of the variance in the SRLS-R3 measure, which is the dependent variable in this study. This finding indicated that study abroad was not significant in contributing to variance in the omnibus SRLS, and thus the research hypothesis is rejected.

Descriptive Findings

Of the 31,480 cases in this study, 25.42% (n=8,004) studied abroad. Even considering that this sample includes only seniors, this percentage of students studying
abroad is high compared to reported data that indicated only one percent of all American students study abroad (Fischer, 2008a, p. A1). The overrepresentation of study abroad in the sample may be because all American college students includes those students attending community college, which make up 47% of all American college students (Horn and Nevill, 2006, p. 45). Community college students are not included in this sample since community colleges offer two-year degrees and so do not have fourth-year seniors. Thus, the smaller set of only students attending four-year institutions, less the 47% of students attending community colleges, may be the reason for the higher participation of seniors in study abroad. From these data, it appears that 25.42% of seniors at American four-year institutions study abroad.

The overrepresentation of study abroad in the sample may also indicate a difference in how students classify a study abroad experience for the 2009 Multi-Institutional Study of Leadership (MSL), as opposed to how study abroad was classified in other research. For instance, any international travel, including a family trip or a tourist trip, may have been included rather than only travel abroad for academic credit. The overrepresentation of study abroad in the sample may also be the result of sampling bias, where those students who were motivated to study abroad were also motivated to complete the survey instrument, or those institutions who chose to participate were also those institutions with high percentages of students studying abroad, or even those institutions that mandate study abroad.

Additional descriptive statistics were calculated as a post-hoc analysis to better understand the students who study abroad. In this study, women made up 64.16% (n=17,054) of respondents and men made up 35.83% (n=9,524). Of the women, a higher
percentage studied abroad (28.32%, n=4,829) than the percentage of men who studied abroad in the sample (20.72%, n=1,973). These findings are important to better understand who chooses to study abroad, since that information was not found to be accessible in the review of literature. Knowing that more women, than men, seem to study abroad may indicate there are barriers to study abroad for men that might be addressed to allow more men the opportunity to study abroad.

Race and ethnicity of the sample were also examined, with a focus on those who had, and had not, studied abroad. White/Caucasian respondents made up the largest group, 73.92% (n=19,637) of the total sample. Of this group, 27.06% (5,314) studied abroad, which is comparable to this sample overall wherein 25.42% studied abroad. The data also show that 23.71% (467) of students who identified as Multiracial studied abroad, as did 26.08% (467) of those who identify as Asian American/Asian, and 11.77% (169) of those who identify as African American/Black. While the study abroad rates of Multiracial and Asian American/Asian respondents are similar to the participation rate of the White/Caucasian respondents and to the participation rate of the entire sample, the 11.7% participation rate of African American/Black respondents is noticeably lower. Perhaps this indicates a barrier to access for study abroad for this group.

The remainder of the sample is composed of those who identify as Latino/Hispanic, who showed a 21.18% (n=222) participation rate, again comparable to the sample and to the largest three racial/ethnic groups. Those who indicated their race or ethnicity was not included participated at a rate of 27.83% (n=103), which is slightly higher than the White/Caucasian group. The small size of this group in comparison to the entire sample (1.39% of the sample, n=370), however, may have skewed the results.
Middle Eastern students showed 18.78% (n=34) participation in study abroad, and finally American Indian/Alaskan Native showed 14.81% (n=20) participation in study abroad, though both of these groups with small representation in the sample may also have skewed results. Overall, those who identify as African American/Black have the lowest participation rate of 11.77%, while those who identify that their race or ethnicity is not included have the highest participation rate of 27.83%, which can be seen by Figure 5.1. Since this type of demographic data were not evident in the review of literature, participation rates of identified racial and ethnic groups in study abroad experiences is an important finding of this study. The lower participation rates of some racial and ethnic groups may indicate that this historical “Grand Tour” notion of study abroad still influences the perceptions of students today, who feel that study abroad is only for White students. Changing the perceptions of study abroad to be more inclusive of other races might be one method of reducing barriers to access.

Figure 5.1 Study abroad participation rates by race/ethnicity
First-generation students comprised 15.55% (n=4,104) of the sample, and non-first-generation students comprised 84.44% (n=22,267). Where 27.68% (n=6,164) of non-first generation students studied abroad, which is comparable to the sample, only 14.69% (603) of first-generation students studied abroad. This finding would appear to indicate that first-generation students are less likely to study abroad than non-first-generation students.

The final demographic explored in this sample was socioeconomic status, as measured by parental income. The largest groups of respondents were those who indicated parental income of $100,000 - $149,999 (14.59%, n=3,876), $75,000 - $99,999 (12.07%, n=3,208), $55,000 - $74,000 (11.80%, n=3,113) and those who did not know parental income (11.78%, n=3,130). The other ranges for parental income comprise the remainder of the sample, with those with parental income less than $12,500 making up just 5.21% (n=1,383) of the sample and representing the smallest group. Perhaps surprisingly, all of the groups of parental income ranges had participation rates for study abroad at, or above, 16.08% ($12,500 - $24,999, n=251) and ranging up to 39.16% ($200,00 and over, n=953). This finding might indicate that, regardless of socioeconomic status, students seem to be able to pursue study abroad experiences at comparable rates to the entire population of this study, which was approximately 25%. Of course, participation rates were generally higher for those with higher parental income, except for those who indicated parental income of less than $12,500 of whom 17.28% (n=239) studied abroad. This trend is shown in Figure 5.2. No statistical analysis was preformed to compare these groups.
Hypothesis

The results of the regression model showed that study abroad experience, as indicated by the final block, was not a significant predictor of the dependent variable of omnibus SRLS-R3. This non-significant finding shows that for seniors there is no change in the variance of the SRLS-R3, otherwise stated as no change in socially responsible leadership as measured by this instrument, due to study abroad. Only the first block of pre-college input variables was found to be significant in contributing to variance in the SRLS-R3. Within the input variables block of those elements contributing to student leadership development pre-college, only the omnibus SRLS pre-test was found to be significant, at \( p < .01 \). The omnibus SRLS pre-test serves as a controlling measure of the study to prevent over-inflation of reported omnibus SRLS results. The mean SRLS pre-test was 3.85 (SD = .51) while the SRLS dependent variable had a mean of 3.98 (SD = .36). Thus, the difference between the pre- and post-SRLS can
be attributed to in-college factors. However, overall, only pre-college factors in the form of the omnibus SRLS pre-test had significance in predicting variance in the omnibus SRLS-R3. These findings do not indicate the possibility that in-college environmental variables, including study abroad, may contribute to one value of the SCM, such as Consciousness of Self, or Controversy with Civility, but not contribute to the omnibus measured by the SRLS-R3. That possibility might explain the fact that the SRLS pre-test and omnibus SRLS-R3 post-test means were different, if the variables tested contributed to individual values of the SRLS-R3 post-test significantly, but not the omnibus test.

The college environment, entered into the regression as the second block, was not found to be a significant contributor to variance in the SRLS-R3, nor was any one variable within the block, though as a whole the block did contribute 9.1% of the total variance. This lack of significance may occur since this study observed only the significance in variance on the omnibus SRLS-R3, which measures the overall social change model of leadership development (SCM). In fact, study abroad may contribute to one or more values of the SCM, such as citizenship or controversy with civility, but those individual values were not studied here.

The elements of the college environment included in this study do not seem to contribute to student leadership development, as measured by the omnibus SRLS-R3. However, this study did not include pedagogies that have been shown to contribute to student leadership development, such as discussions about socio-cultural issues, campus involvement, and mentoring in the college environment (Dugan & Komives, 2007). For instance, Dugan and Komives (2007) reported from the 2006 MSL, “Faculty mentoring was one of the top three predictors across all SCM values except Citizenship and
Collaboration” (p. 15). Mentoring was found to be significant, as have other pedagogical interventions such as discussions about socio-cultural issues, and involvement in campus clubs and organizations. It may be that the act of study abroad is not sufficient alone to produce leadership development outcomes, but that the pedagogies during the study abroad experience have the potential for a greater impact on student learning outcomes, such as introducing mentoring or socio-cultural issue discussions into study abroad experiences. While this study did not find that study abroad was significant in predicting variance in the omnibus SRLS-R3, other interventions in the college setting have been seen to be effective in student leadership development for seniors.

The finding that the college environments variables tested, including study abroad, were not significant predictors may occur for a number of reasons. One such reason may be that the R square and the Adjusted R square in this case were dissimilar (see Table 4.3). The Adjusted R square value corrects for over-estimation of variables that may occur in the R square output (Pallant, 2007). Since there were a large number of environments tested, not all respondents of the sample are likely to have experienced all of those environments. Since the R square increases with each variable entered, the large number of environments may be the reason the R square values are possibly overestimated. The Adjusted R square may be a better estimate of the true population value since it corrects for the actual contribution of each variable. As such, the difference between the R square and the Adjusted R square values indicates that the large number of environments tested for this sample may have overestimated the results of this sample beyond what may be true for the entire population of seniors.
Post-hoc Analysis

The post-hoc analysis of an independent samples t-test showed a significant difference in the mean scores of the omnibus SRLS-R3 for the two groups of respondents to the study abroad question. There was a difference between the means of the Yes study abroad and No study abroad groups amounting to .04, with a 95% Confidence Interval between .03 to .05. The effect size, or strength of association between the two groups, was calculated to be small according to Pallant (2007) who suggests an effect size less than .01 be considered small; here the effect size was .002, or 0.2%, as calculated by eta squared.

These findings lead the researcher to believe that there is a small effect, or a small association, on the omnibus SRLS outcome measure from having studied abroad. Otherwise stated, a statistically significant but small amount of the variance of the dependent variable, SRLS-R3, was explained by the independent variable, study abroad. While this result was found to be significant, the effect size was quite small and so further investigation is recommended to clarify the association. This result does, however, confirm the post-hoc hypothesis that study abroad has some effect on the variance in the SRLS-R3 measure.

Limitations

As has been mentioned before, the item indicating study abroad experience in the MSL simply states “Which of the following have you engaged in during your college experience:” with one option to select being study abroad. Knowing the wide variety of study abroad experiences, lengths, and purposes, this response can be interpreted broadly and a categorical variable with simply a yes or no response option does not allow for the
nuances of the experience to be identified. The definition of study abroad here is not limited to a traditional, semester-long experience for academic credit but is reliant upon the respondent’s interpretation of study abroad and her or his experiences. This is a limitation of using an ex-post-facto experimental design; the opportunity to design an instrument for this research question would allow greater specificity in the data collected for those exact purposes. As it is, the data collected do measure the research question and allow for some insight to be obtained on this topic.

A potential inherent limitation of the MSL data is that all data are self-reported by each individual respondent. Thus, each item is subject to the interpretation and bias of the respondent. Reliance upon self-report data is questionable but is also the most direct way to avoid the flaws of misinterpretation between individuals and researcher biases. Still, under the following conditions self-report data are widely considered to be valid:

(1) the information requested is known to the respondents; (2) the questions are phrased clearly and unambiguously; (3) the questions refer to recent activities; (4) the respondents think the questions merit a serious and thoughtful response; and (5) answering the questions does not threaten, embarrass, or violate the privacy of the respondent or encourage the respondent to respond in socially desirable ways. (Kuh, Hayek, Carini, Ouimet, Gonyea, & Kennedy, 2001, p. 9)

The MSL instrument attempts to fulfill all five of these conditions and thus the responses can be considered as valid data.

The MSL instrument is also not a true I-E-O design (Astin, 1991) since the data are cross-sectional, not longitudinal. The omnibus SRLS pre-test is measured by asking students to think back to a time before college, rather than asking them before they begin
college. The population of seniors studied in this research has the largest gap between their current state and their pre-college states. This large gap may mean that pre-college or input factors are incorrectly attributed to having significant effects for college outputs.

The SRLS-R3 measure is based upon a single theory of leadership (the SCM) where other theories of leadership exist. The bias of this instrument toward measuring SCM-related leadership values may lead to misrepresented findings. Finally, a descriptive limitation is that the 2009 MSL allowed institutions to self-select if they would participate, though to participate each institution was required to have at least 4,000 participants, or the entire student body if the student body was smaller than 4,000. This self-select participation model could mean that a certain type of institution would choose to invest the time and resources to participate, and other types of institutions would not make that investment. Perhaps those institutions where leadership development is part of the culture, or an aspiration, make the investment to participate. The bias of the self-select participation model of the 2009 MSL is a potential limitation of the sample of 99 institutions studied.

*Implications for Practice*

This study found that pre-college factors were significant in predicting responses to the SRLS-R3, but did not find the in-college experiences tested or study abroad to be significant. In any case, since pre-college experiences only predicted 21% of the variance in the dependent variable, this leaves 79% of the variance unexplained. This variance might be attributed to interventions in the college environment if practitioners are able to be more intentional, since there is clearly development on the SRLS-R3 scale during college years. More intentional interventions, such as developing study abroad
programs as a tool for student leadership development, may be able to account for more of the variance in the SRLS-R3 and ensure more college seniors graduate with strong leadership skills, as measured by the SRLS instrument. The post-hoc analysis shows that some variance in the SRLS-R3 does occur between those who do, and do not, study abroad; perhaps simply studying abroad though is not enough to create moderate or large effect sizes. To achieve that level of development, practitioners in higher education should create intentional environments for leadership development around study abroad. For instance, study abroad programs may need more support before and after travel to incorporate the study abroad into the holistic college experience for students. Perhaps students do not identify leadership outcomes related to study abroad since the experience is seen as tangential to the college experience.

Study abroad may also be an untapped resource area for student leadership development. Since the connection between study abroad and student leadership development had not been identified in the literature prior to this study, it may be that study abroad was not seen as an environment for student leadership development. The lack of significance of study abroad to variance in the SRLS may mean that there has not been enough intentional student leadership development occurring before, during, or after study abroad experiences. The connection of global leadership models to the SCM, as identified in Table 2.1, indicates that there is a connection between study abroad and student leadership development. The results of this study provide evidence that the potential connection, which begins to emerge in the post-hoc comparison, is not being realized as a learning outcome for students. Simply studying abroad is not sufficient to accomplish leadership development, but more intentional efforts to develop student
leadership may show different results. This implication is important for student affairs educators, especially those seeking to develop student leadership and those responsible for study abroad programs.

This study was able to identify some demographic characteristics of those students who do, and who do not, study abroad. This student profile contributes valuable information to the field and may help identify barriers to the study abroad experience. Students whose race or ethnicity was not included in the question had the highest participation rate in study abroad, followed by White/Caucasian students and then Asian American/Asian students. Higher participation rates were also attributed to female students, non-first generation students, and those with parental income over $75,000 as compared to their respective counterparts. Knowing who participates allows practitioners to draw upon existing knowledge about those students’ identities and develop programs that allow those students to thrive and develop in the study abroad environment. Overall, every single demographic variable explored showed higher participation rates than the reported 1% of students overall who study abroad (Fischer, 2008a, p. A1).

Since this study was on a national scale, with results generalizable to the population of seniors in college, perhaps study abroad rates are higher than the reported 1%, at least for those students attending institutions who were part of this sample of 99 four-year institutions. It may be that increasing participation rates in study abroad progressing faster than previously reported; in any case, overall 25.2% of this sample of seniors studied abroad. If a quarter of students at those 4-year institutions studied here are participating in study abroad, that figure alone suggest that the outcomes of participation in study abroad should be better understood by practitioners. The link
between leadership development, especially in a global context, and study abroad was identified in the review of literature, and is one contribution from this study. The link between leadership development and study abroad is not being realized by simply studying abroad, as evidenced by the non-significant findings. It appears that more intentional work must be done on the part of the higher education practitioner to make the connection to leadership development in a global context, since students do not seem to be making those connections independently.

**Suggestions for Future Research**

The analysis of current literature presented, as well as the findings of this research, help to identify several areas of potential research in the future. The demographic findings indicate certain groups whose participation in study abroad was less than their counterparts, and less than the overall sample. For instance, respondents who identified as African American/Black have the lowest participation rate in study abroad of the racial/ethnic groups identified; those with socioeconomic status below $39,999, as indicated by parental income, also showed the lowest rate of participation compared to other parental income brackets. Those who are first-generation students, and those who are men, each participate at lower rates than their respective counterparts. The barriers that each of these identity groups face to study abroad are likely to vary among those barriers discussed in Chapter One, or others that were not identified in the literature. Further research into why certain groups do not seem to have the same access or rate of participation would inform the practice and implementation of study abroad.

As mentioned in the limitations, the SRLS-R3 instrument is based upon the SCM, and measures socially responsible leadership. Another instrument designed with
different ideations of leadership might identify outcomes of study abroad experiences related to leadership that could not be identified here. Concepts such as mentoring, developing interpersonal relationships, or working with others who are different may be found to contribute to leadership development in the study abroad environment specifically. Designing an instrument would allow the researcher to access those concepts in the reported data.

Another option would be to explore qualitative methods of assessing student leadership development as an outcome of study abroad. A qualitative approach might be able to identify the outcomes of a certain type of study abroad experience. Since the study abroad variable is not controlled in this study, and study abroad is known to take many different forms, focusing on a certain type of study abroad experience using qualitative methods may offer deeper insight into at least that form of experience.

Since the second block of college environment variables was found to contribute 9.1% of variance, though was not significant, future research may look into what aspects of the college environment are contributing to that variance, and if they are significant when measured differently. Perhaps an element that has not been posed as a variable yet is responsible for the additional variance seen in the SRLS-R3 outcome.

Conclusion

This study attempted to draw together the desired college outcome of student leadership development and the developing trend toward offering more study abroad experiences. Using hierarchical regression and Astin’s (1991) college impact model, 21% of the variance in the SRLS-R3 was found to be contributed from pre-college input variables; specifically, the omnibus SRLS pre-test was identified as the only significant
variable in the first block. College environment and study abroad were not found to be significant. Findings from this study also include demographic characteristics of the study abroad population, and noticeable trends in study abroad participation. All of the findings from this study leave room for future research in this fast-growing aspect of the college experience. With more information about the study abroad experience, and especially learning outcomes related to leadership development, practitioners can be more intentional in program design and in supporting students’ development during study abroad to realize the potential connection between study abroad and student leadership development in a global context.
MEMORANDUM
Application Approval Notification

To: Dr. Susan R. Komives
John Dugan
Dr. Julie Owen
Amy Lee
Matthew Johnson
Ramsey Jahaaji
Justin Fischer
Kristan Cillante
Chetan Chowdhry
Cerbin Campbell
National Clearinghouse for Leadership Programs/Office of Campus Programs
Wendy Wagner
Craig Stolz
Tricia Stalka
Meredith Smith

From: Joseph M. Smith, MA, CIM
IRB Manager
University of Maryland, College Park

Re: IRB Application Number: 05-0454
Project Title: "The Multi-Institutional Study of Leadership"

Approval Date: July 13, 2009
Expiration Date: July 13, 2010
Type of Application: Renewal
Type of Research: Non-Exempt

Type of Review for Application: Expedited

The University of Maryland, College Park Institutional Review Board (IRB) approved your IRB application. The research was approved in accordance with the University IRB policies and procedures and 45 CFR 46, the Federal Policy for the Protection of Human Subjects. Please include the above-cited IRB application number in any future communications with our office regarding this research.

Recruitment/Consent: For research requiring written informed consent, the IRB-approved and stamped informed consent document is enclosed. The expiration date for IRB approval has been stamped on the informed consent document. Please keep copies of the consent forms used for this research for three years after the completion of the research.

Continuing Review: If you intend to continue to collect data from human subjects or to analyze private, identifiable data collected from human subjects, after the expiration date for this approval (indicated above), you must submit a renewal application to the IRB Office at least 45 days before the approval expiration date. If IRB approval of your project expires, all human subject research activities including the enrollment of new subjects, data collection, and analysis of identifiable private information must stop until the renewal application is approved by the IRB.

Modifications: Any changes to the approved protocol must be approved by the IRB before the change is implemented, except when a change is necessary to eliminate apparent immediate hazards to the subjects. If you would like to modify the approved protocol, please submit an addendum request to the IRB Office. The instructions for submitting a request are posted on the IRB web site at: http://www.umresearch.umd.edu/IRB/irb_Addendum%20Protocol.htm.

Unanticipated Problems Involving Risks: You must promptly report any unanticipated problems involving risks to subjects or others to the IRB Manager at 301-405-0673 or junilh@umresearch.umd.edu.

Student Researchers: Unless otherwise requested, this IRB approval document was sent to the Principal Investigator (PI). The PI should pass on the approval document or a copy to the student researchers. This IRB approval document may be a requirement for student researchers applying for graduation. The IRB may not be able to provide copies of the approval documents if several years have passed since the date of the original approval.

Additional Information: Please contact the IRB Office at 301-405-4212 if you have any IRB-related questions or concerns.
Appendix B: MSL 2009 Reliability Levels

**Multi-Institutional Study of Leadership 2009**

**Reliability Levels for Composite Measures**

Note that these reliabilities were calculated using the MSL 2009 National Data and may vary from those calculated using subsamples.

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<th>Chronbach's Alpha</th>
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<td><strong>Core Scales</strong></td>
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<td>Commitment</td>
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<td>Collaboration</td>
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<td>Common Purpose</td>
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<td>Controversy with Civility</td>
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<td>Citizenship</td>
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<td>Change</td>
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<td>Cognitive Skills Pretest</td>
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<td>Leadership Efficacy Pretest</td>
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<td><strong>Other Composite Measures/ Scales</strong></td>
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<td>Discriminatory Climate</td>
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<td>Mentoring Outcomes: Personal Development</td>
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Appendix C: MSL 2009 Validation of SRLS-R3

Validation SRLS-R3
Correlations with MLQ and student LPI
11/09

<table>
<thead>
<tr>
<th></th>
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