Study Abroad Program Design, Personal Development and Intercultural Effectiveness

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STUDY ABROAD PROGRAM DESIGN, PERSONAL DEVELOPMENT AND INTERCULTURAL EFFECTIVENESS

by

Margaret Davis Wiedenhoeft

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STUDY ABROAD PROGRAM DESIGN, PERSONAL DEVELOPMENT AND INTERCULTURAL EFFECTIVENESS

Margaret Davis Wiedenhoeft, Ph.D.

Western Michigan University, 2011

Research on study abroad focuses on the development of learning outcomes and assessment (Bolen, 2007) or program design, such as level of integration with local student population, housing situation, and level of interaction with host culture (Brecht & Robinson, 1993; Engle & Engle, 2004; Georgetown Consortium Research Project, n.d.; Paige, Cohen, & Shively, 2004; Redden, 2007; Vande Berg, Balkcum, Scheid, & Whalen, 2004). The purpose of this study is to examine the extent of personal development and intercultural effectiveness of students who study abroad and to determine the relationship of program design (homestay, conducting an on-site project, language level obtained prior to study) to personal development and intercultural effectiveness. This is a cross-sectional study including two research instruments, the Student Developmental Task and Lifestyle Assessment (SDTLA) (Winston, Miller, & Cooper, 1999) and the Miville-Guzman Universality-Diversity Scale—Short (MGUDS-S) (Fuertes, Miville, Mohr, Sdelacek, & Gretchen, 2000) and three cohorts of students ($n = 153$).

This study reveals that although there may be differences in the results of the mean scores of the instruments completed by the sophomores ($n = 48$), juniors ($n = 49$), or seniors $n = 56$), the differences in the means are not statistically significant.
Sophomores who had yet to study abroad do not score statistically higher or lower on either the STDLA or MGUDS-S. However, seniors \((n = 56)\), who had returned over a year ago from study abroad, score higher on Instrumental Autonomy subtask on the SDTLA than juniors who had returned from study abroad within the past two months.

The Michigan College participants score higher than the national SDTLA sample in the main tasks Developing Autonomy (AUT) and Mature Interpersonal Relationships (MIR). Michigan College participants also score higher than the national sample for the MGUDS-S.

The factors ICRP, language level studied at the program abroad, and language level achieved prior to study abroad appear to approach significance in predicting the score on the MGUDS-S. Additionally, housing approaches significance in predicting scores on the MIR subtask. Given the evidence from the power analysis, the small sample \((n = 105)\) may have hampered finding significant results.
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# TABLE OF CONTENTS

ACKNOWLEDGMENTS ........................................................................................................... ii  
LIST OF TABLES .................................................................................................................. ix  
LIST OF FIGURES ................................................................................................................ xii  

CHAPTER  

I. INTRODUCTION ................................................................................................................ 1  
   Study Abroad .................................................................................................................. 1  
   Personal Development and Study Abroad ................................................................. 3  
   Intercultural Effectiveness ..................................................................................... 4  
   Statement of the Problem ..................................................................................... 5  
   Research Questions .................................................................................................. 7  
   Research Methods ................................................................................................... 8  
   Significance of the Study ....................................................................................... 9  
   Summary of the Chapter ..................................................................................... 10  

II. LITERATURE REVIEW .................................................................................................... 11  
   Study Abroad ............................................................................................................. 11  
   History of Study Abroad ....................................................................................... 11  
   Previous Research on Study Abroad ..................................................................... 16  
   Language Development ....................................................................................... 16  
   Personal Development and Study Abroad .......................................................... 19
### Table of Contents—Continued

**CHAPTER**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of Attitudes</td>
<td>21</td>
</tr>
<tr>
<td>Adjustment</td>
<td>22</td>
</tr>
<tr>
<td>Intercultural Development</td>
<td>23</td>
</tr>
<tr>
<td>Reentry</td>
<td>27</td>
</tr>
<tr>
<td>Summary Statement</td>
<td>28</td>
</tr>
<tr>
<td>Study Abroad Program Classifications</td>
<td>29</td>
</tr>
<tr>
<td>Program Type and Level of Immersion</td>
<td>32</td>
</tr>
<tr>
<td>Program Structure – Housing Options</td>
<td>33</td>
</tr>
<tr>
<td>Conceptual Framework</td>
<td>35</td>
</tr>
<tr>
<td>Universal-Diverse Orientation</td>
<td>36</td>
</tr>
<tr>
<td>UDO in the Research</td>
<td>38</td>
</tr>
<tr>
<td>Psychosocial Personal Development Theory</td>
<td>40</td>
</tr>
<tr>
<td>Chickering’s Vectors in Research</td>
<td>42</td>
</tr>
<tr>
<td>Main Tasks, Subtasks, and Indicators for SDTLA Instrument</td>
<td>43</td>
</tr>
<tr>
<td>Research Using the SDTLA</td>
<td>44</td>
</tr>
<tr>
<td>Summary of Theoretical Framework</td>
<td>46</td>
</tr>
<tr>
<td>Summary of Chapter</td>
<td>46</td>
</tr>
<tr>
<td><strong>III. METHODOLOGY</strong></td>
<td>49</td>
</tr>
<tr>
<td>Design Introduction</td>
<td>50</td>
</tr>
<tr>
<td>Setting and Participants</td>
<td>51</td>
</tr>
</tbody>
</table>
### Table of Contents—Continued

#### CHAPTER

- Michigan College ........................................................................................................... 51  
- Study Abroad Programs at Michigan College .................................................. 52  
- Study Abroad Program Characteristics ................................................................. 53  
- Research Sample ......................................................................................................... 54  
- Instruments ...................................................................................................................... 55  
  - MGUDS-S .......................................................... 55  
  - SDTLA .......................................................... 56  
- Data Collection ............................................................................................................. 57  
- Data Analysis ............................................................................................................... 60  
- Conclusion ...................................................................................................................... 61  

#### IV. RESULTS ............................................................... 63  

- Demographic Data ........................................................................................................ 63  
  - Description of Participants.......................................................................................... 64  
- Data Considerations ...................................................................................................... 68  
  - Student Developmental Task and Lifestyle Assessment ........................................ 68  
  - Miville-Guzman Universality-Diversity Scale ............................................................ 73  
- Additional Program Information .................................................................................. 75  
  - Language Level Pre-Study Abroad .......................................................................... 76  
  - The Integrative Cultural Research Project ............................................................... 77  
  - Housing ....................................................................................................................... 78
Table of Contents—Continued

CHAPTER

Language on the Program ........................................................................... 79
Summary ........................................................................................................ 80
Research Questions ..................................................................................... 81
Research Question 1 .................................................................................... 82
Research Question 2 .................................................................................... 89
Research Question 3 .................................................................................... 92
Dependent Variable: Establish Purpose Task ............................................. 94
Dependent Variable: Developing Autonomy Task .................................... 97
Dependent Variable: Managing Interpersonal Relationships ................. 99
Dependent Variable: Openness to Diversity ............................................. 102
Research Question 4 .................................................................................... 105
Summary ........................................................................................................ 108

V. DISCUSSION ............................................................................................ 110
Findings .......................................................................................................... 110
Differences Between Cohorts ................................................................. 110
Michigan College Cohort and Comparisons to National Samples ........ 111
Study Abroad Program Characteristics .................................................... 114
The Integrative Cultural Research Project (ICRP) ..................................... 115
Housing ......................................................................................................... 117
Language ...................................................................................................... 118
Table of Contents—Continued

CHAPTER

Limitations of Study................................................................. 118

Population .............................................................................. 118

Design ..................................................................................... 119

Program Variables................................................................. 120

Instruments............................................................................. 121

Future Research................................................................. 123

Summary............................................................................. 125

REFERENCES ............................................................................. 127

APPENDICES

A. Michigan College Study Abroad Programs ................................. 142

B. Permission to Reprint the Student Developmental Task and Lifestyle Assessment ........................................................................ 144

C. Student Developmental Task and Lifestyle Assessment .............. 146

D. Human Subjects Institutional Review Board Letter of Approval .......... 166

E. Student Consent Form............................................................ 168
LIST OF TABLES

1. Survey Participants and General Study Abroad Population by Gender: Sophomores .......................................................... 64
2. Survey Participants and General Study Abroad Population by Gender: Juniors ........................................................................... 65
3. Survey Participants and General Study Abroad Population by Gender: Seniors ........................................................................ 65
4. GPA Survey Respondents, Study Abroad Participants, and Student Population ........................................................................... 66
5. Participation Rates: Survey Respondents and General Study Abroad Population ........................................................................... 66
6. Research Participants and Total Study Abroad Participants by Major Division .................................................................................. 67
7. SDTLA: Sophomores ........................................................................... 69
8. SDTLA: Juniors ................................................................................ 70
9. SDTLA: Seniors ................................................................................ 71
10. Reliability for SDTLA Tasks and Subtasks ................................................ 72
11. MGUDS-S Results: Sophomores ....................................................... 73
12. MGUDS-S Results: Juniors ................................................................. 74
13. MGUDS-S Results: Seniors ................................................................. 74
14. MGUDS-S Reliability ......................................................................... 75
15. Language Level Prior to Study Abroad Departure .................................. 77
16. Integrative Cultural Research Project .................................................. 78
17. Housing in Study Abroad Programs .......................................................... 79
18. Language on Site ....................................................................................... 80
19. t Test: Sophomores and Juniors SDTLA .............................................. 83
20. Comparison of Michigan College Sophomores to National SDTLA Scores ..... 85
21. Comparison of Michigan College Juniors to National SDTLA Sample ........ 86
22. Comparison of Michigan College Seniors to National SDTLA .................. 88
23. t-Test Results: Sophomores and Juniors MGUDS-S .............................. 89
24. Openness Towards Diversity: Comparison with National Scores ............ 90
25. Independent Factors .................................................................................. 92
26. List of Dependent Variables .................................................................... 93
27. PUR Task Correlation Table .................................................................... 94
28. Summary of Single Item Regression Analysis for PUR ........................... 95
29. Summary of Model 1 Multiple Regression Analysis for PUR .................. 96
30. Summary of Level Two Multiple Regression Analysis for PUR ............... 96
31. Correlation Table: AUT Task ................................................................. 97
32. Summary of Single Item Regression Analysis for AUT .......................... 98
33. Summary of Multiple Regression Analysis: AUT .................................. 98
34. Summary of Level Two Multiple Regression Analysis: AUT .................. 99
35. Correlation Table: MIR Task .................................................................... 100
36. Summary of Single Item Regression Analysis for MIR ......................... 101
37. Summary of Regression Analysis: MIR .................................................. 101
List of Tables—Continued

38. Summary of Level Two Multiple Regression Analysis for MIR Juniors/Seniors ........................................................ 102
39. Correlation Table: MGUDS-S Task .......................................................... 103
40. Summary of Single Item Regression Analysis for MGUDS-S ............... 103
41. Summary of Level 1 Regression Analysis: MGUDS-S ............................. 104
42. Summary of Level 2 Regression Analysis: MGUDS-S ............................. 105
43. $t$ Tests: Juniors and Seniors SDTLA ...................................................... 106
44. $t$ Tests: MGUDS Juniors and Seniors .................................................... 107
LIST OF FIGURES

1. MGUDS-S Constructs ................................................................. 56
2. SDTLA Constructs ....................................................................... 58
CHAPTER I

INTRODUCTION

Study Abroad

During the last decade student participation in study abroad programs as part of an undergraduate degree has steadily increased. Even though the Institute of International Education (IIE) released data in November 2010 showing a slight decline of 0.8% for the 2008-2009 academic year (Institute of International Education, 2010), data from previous years show a steady increase, including an 8.5% increase in study abroad participation for the 2007-08 academic year (“Americans Study Abroad,” 2009). This highlights a 10-year period of growth, resulting in an overall increase of 150%. In 1994/95, only 84,403 U.S. students studied abroad, and in 2004-2005 this number grew to 205,983 (“Americans Study Abroad,” 2009). Additionally, institutions report that more students inquire about study abroad and how they may incorporate an international experience into their undergraduate degree (Inside Higher Ed, 2009).

In the beginning of this decade, the American Council on Education surveyed 500 college-bound high school seniors and discovered that 97% of the group agreed that study abroad was the best way to learn a language and that 86% agreed that study abroad was the best way to learn about another culture (Hayward & Siaya, 2001). In addition, 50% of these students declared an interest in study abroad during their college years (Hayward & Siaya, 2001).
As faculty and administrators recognize heightened student interest in study abroad, some institutions have gone a step further by formally requiring study abroad as part of the curriculum. In spring of 2006, the leadership of Goucher College announced that the incoming first-year class would be required to participate in a study abroad program as part of the undergraduate degree, regardless of discipline (Lipka, 2006). In October 2006, a faculty committee from the Massachusetts Institute of Technology released its report on recommendations for the review of the MIT core. One of the primary recommendations involved encouraging faculty and departments to allow for students to participate in study abroad (Jaschik, 2006). Only the previous year, a faculty committee on education abroad at Harvard University recommended to the college that faculty and departments structure coursework to accommodate at least a semester of study abroad (Jacobs, 2005). With this sense of importance on college campuses, it is no wonder that the number of colleges offering study abroad programs increased from 65% in 2000 to 91% in 2006 (Stearns, 2009).

On a national level, government and business leaders also recognize the tangible benefits for students who study abroad and return as engaged U.S. citizens. In 2005, the Lincoln Commission, a group of 17 members including U.S. senators, university presidents, and higher education administrators, released a report encouraging that federal funding be geared towards international education (Commission on the Abraham Lincoln Study Abroad Fellowship Program, 2005). On June 5, 2007, the House approved H.R. 1469, the Senator Paul Simon Study Abroad Foundation Act of 2007 (“Senator Paul Simon,” 2007). This act states as its goal to create a national initiative “to give our students the opportunity to gain the necessary world knowledge and cultural
understanding that allows them to be effective in today’s global society” (“Senator Paul Simon,” 2007, p. 2). Also in 2007, a forum including the National Association of Manufacturers and the National Association of State Universities and Land Grant Colleges identified study abroad as a foundation of “global competency,” a form of competency necessary to keep Americans competitive (Stearns, 2009).

Personal Development and Study Abroad

Personal development is the “process of growth, evolution, expansion, and maturation of the individual self” (Kauffmann, Martin, Weaver, & Weaver, 1992, p. 98). Psychosocial theories describe development as occurring in stages or completed tasks with individuals changing how they may feel, behave, or interpret their experiences as a result of growing cognitive capabilities and environmental influence (Chickering & Reisser, 1993; Havighurst, 1972; Kitchener, 1982). For young adults, this environmental influence may be a college or university setting. Colleges and universities provide not only intellectual stimulation, but an environment and structure that helps students recognize and develop their own personal values and skills (Astin, 1993; Chickering & Havighurst, 1981). Chickering and Reisser (1993) described the development that occurs during the typical college years (ages 17-24) in a seven-vector stage process, with students progressing through the vectors as they encounter new challenges to their previously held individual views and beliefs.

For students who attend college and participate in a study abroad program, the study abroad environment will be very different from what they have known previously. Students may experience emotional turmoil as they are forced to reconsider previously
held beliefs and values as well as develop new skills (Paige, 1993). Levy (2000) reports
that a student’s reaction to a new, particularly foreign, environment may lead to personal
development if the student is able to navigate between her own home culture and the new
host environment. Even if students do not experience an emotional tension, they will still
experience a process that confronts a different set of values and determines how their own
values compare with those of the host culture (Paige, 1993). Researchers report that study
abroad students who engage in non-superficial unfamiliar activities (living with a local
host family, participating in an experiential activity with a local organization, etc.) in an
unfamiliar environment will exhibit growth in personal development (Edwards, Hoffa, &

The ability to engage in these non-superficial activities may be a direct result of
whether the study abroad program provides meaningful interaction with the host culture
(Engle & Engle, 2002). Study abroad program design facilitates or inhibits the ability of a
participant to interact meaningfully with the host culture and thus affect the level of
personal development a student may experience during a study abroad program
(Stephenson, 2002). However, although organized studies are beginning to investigate
this question (Vande Berg, Connor-Litton, & Paige, 2009), additional research is
necessary to explore how study abroad program design may influence the personal growth
and development of participants (Bolen, 2007; Fernandez, 2006).

Intercultural Effectiveness

There exist many definitions and constructs of intercultural competence or cross-cultural ability in the literature, but most researchers will define intercultural competence
as the congruence of cognitive knowledge about cultures with an intentional behavior pattern by the individual, acknowledging the necessity to alter actions as a way of fitting in with the new local culture (Bennett, 1993; Byram, 1997; Chen, 1997). Significant research has focused on intercultural characteristics and growth for students who participate in a study abroad program (Alred & Byram, 2002; Fernandez, 2006; Kitsantas & Meyers, 2001; Medina-López-Portillo, 2004; Shaheen, 2004).

Students who study abroad demonstrate a higher level of intercultural effectiveness than students who remain on their home campus (Kitsantas & Meyers, 2001). Intercultural effectiveness is developed even further when students actively seek out information about the host culture and use this information to inform their interactions (Alred & Byram, 2002). Medina-López-Portillo (2004) examined the development of intercultural sensitivity for participants on study abroad and concluded that program length was the greatest factor associated with positive change in intercultural sensitivity. Fernandez (2006) found that students on study abroad who reported higher levels of participation and activities in the daily lives of local people also reported higher levels of positive cross-cultural interactions and cross-cultural knowledge.

Statement of the Problem

Research in the 1980s and 1990s about study abroad represented mostly quantitative research studies, with the focus on comparing students who study abroad with those who remain home based on academic achievement, advancement in foreign language skills, increase in knowledge of host cultures, and openness to diversity.
(Carlson, Burn, Useem, & Yachimowicz, 1990; Cash, 1993; Opper, Teichler, & Carlson, 1990; Thot, 1998; Wortman, 2002). Most of these studies were able to demonstrate that study abroad students exhibited higher levels of achievement in these areas than their peers who remained home; however, in most cases, the sample sizes are fewer than 75 students for both groups (Cash, 1993; Thot, 1998; Wortman, 2002). An exception is one of the first major longitudinal research projects, known as the Study Abroad Evaluation Project (SEAP), conducted to study the impact of study abroad on 439 students, which concluded that target language gains were reported when students took courses (not foreign language courses) in the target language (Opper et al., 1990).

Beginning in the late 1990s and currently, colleges and universities, as well major international education associations, have focused on accountability while simultaneously developing a consensus on defining the characteristics of a quality study abroad program (Weinberg, 2007). As a result of this, the most current research on study abroad focuses on the development of learning outcomes and assessment (Bolen, 2007). Other research in the field has focused on study abroad program design, such as level of integration with local student population, housing situation, and level of interaction with host culture and what are presumed outcomes of study abroad, such as language acquisition and level of intercultural development, and learning within a specific discipline (Brecht, Davidson, & Ginsberg, 1993; Engle & Engle, 2004; Redden, 2007; Paige, Cohen, & Shively, 2005; Vande Berg, Balkcum, Scheid & Whalen, 2004; Vande Berg et al., 2009).

Despite rising student interest and participation, as well as the increasing interest of institutions and government bodies, on-campus faculty and study abroad administrators still struggle to understand the experience and impact of study abroad for their students.
(Sowa, 2002). The purpose of this study is to examine the extent of personal development and intercultural effectiveness of students who study abroad as part of their undergraduate degree. I am not interested in comparing students who study abroad with those who do not, nor will I examine the extent of growth for each individual. Rather I will attempt to establish relationships between the depth of personal development and intercultural effectiveness and the type of study abroad program a student completed.

Research Questions

Despite the significant increases in the number of students who participate in study abroad programs, researchers have only just begun to study and understand the extent of a student’s personal development and intercultural effectiveness as a result of a study abroad experience. My research questions include:

1. To what extent does a cohort of students who study abroad demonstrate a higher level of personal development as measured by the Student Developmental Task and Lifestyle Assessment (SDTLA) than (a) a cohort of students who have not yet studied abroad, and (b) a national sample of university students who have taken the SDTLA?

2. To what extent does a cohort of students who study abroad demonstrate a higher level in intercultural effectiveness as measured by the Miville-Guzman Universality Diversity Scale–Short (MGUDS-S) than (a) a cohort of students who have not yet studied abroad, and (b) a national sample of university students who have taken the MGUDS-S?
3. To what degree do elements of a study abroad program impact personal growth and intercultural effectiveness? The specific program characteristics examined are: language level of participants, required non-English language use (subjects taught in English or local language), on-site student projects, and type of housing (homestay, residence housing with host nationals, residence housing with North American students).

4. To what extent is personal growth and intercultural effectiveness sustained over time?

Research Methods

To address my research questions, I conducted a cross-sectional study and examined the results of two research instruments given to three distinct cohorts of students. The first instrument was the Student Developmental Task and Lifestyle Assessment (SDTLA). Winston, Miller, and Cooper (1999) developed the SDTLA to identify the extent to which a participant has progressed on the developmental stage model proposed by Chickering and Reisser (1993). Chickering and Reisser proposed this psychosocial developmental model to explain how students develop and mature as a result of major life events in college.

Miville et al. (1999) first introduced Universal-Diverse Orientation (UDO) as a construct that “describes an attitude of awareness and acceptance of both the similarities and differences among people” (p. 291). UDO encompasses cognitive, behavioral, and affective attributes. In essence, UDO seeks to operationalize “the appreciation of cultural diversity or the motivation to control prejudice reactions” (Burkhard, Boticki, & Madson,
The MGUDS-S is a 15-question instrument that measures UDO as a construct in the behavioral, cognitive, and emotional domain (Fuertes, Miville, Mohr, Sedlacek, & Gretchen, 2000).

I administered both of these instruments to study abroad students each in the sophomore, junior, and senior cohort ($n = 153$). The students completed the SDTLA and MGUDS-S in one web survey in May 2008. In order to examine the relationship between personal growth, intercultural effectiveness, and study abroad program design, participants were also asked to identify their study abroad program.

**Significance of the Study**

As stated earlier, one of the goals of this study is to develop a better understanding of the relationship between study abroad program design and the personal development and intercultural effectiveness of student participants. This study has the potential to demonstrate the extent of personal growth or intercultural effectiveness of study abroad participants in relation to different components of a study abroad program. This understanding could lead to a more intentionally designed study abroad program as well as improved curriculum for study abroad orientation courses and re-entry activities. Educators would be better informed as to which program elements contribute to deep, meaningful experiences for student participants.

Since this research provides insight on the experience of study abroad for students, it is useful as an advocacy tool for international education. If we understand better the experiences for student participants, then educators may provide better
preparation programs for students to understand, reflect and learn from the experience of study abroad.

Summary of the Chapter

In this chapter I introduced the context of my research and the background for my research question. In Chapter II, I present a literature review highlighting recent and important research in the area of study abroad and the theoretical framework for my study. In Chapter III, I detail my methodology and data collection process. Finally, Chapters IV and V include the results of my study and discussion.
CHAPTER II

LITERATURE REVIEW

In this chapter I present a brief historical context for academic study abroad and introduce recent research regarding study abroad. Next, I introduce literature explaining how typical study abroad programs are organized. Finally, I present the theoretical concepts that provide the foundation for my research questions.

Study Abroad

History of Study Abroad

Pursuing educational activities outside of one’s home culture is not just a recent phenomenon. Ireland (1999) describes Irish monasteries accepting students from England in the 7th century. During the Middle Ages and Renaissance, gentlemen of the ruling class were expected to travel abroad as part of their education (Hoffa, 2007). This evolved to the concept of what became known as the Grand Tour in England beginning in the 17th century (Hoffa, 2007).

Americans first went abroad in colonial times, traveling to Germany, Scotland or England to pursue professional education (Bowman, 1987; Edwards et al., 2005). After a break due to the Napoleonic war on continental Europe, the 19th century witnessed travel by both rich men and women of European, English, and American nationalities (Hoffa, 2007). Although American women did not have permission to study at European
institutions of higher education, they were allowed to travel independently with a chaperone (Bowman, 1987).

Shortly after World War I, both scholars and politicians came together to establish the Institute for International Education (IIE), founded by the President of Columbia University, Elihu Root, a former Secretary of State, and Nicholas Murray Butler, from the City College of New York. The purpose of this new organization focused on an organized exchange of faculty and students, primarily with universities in Europe (Institute of International Education, 2008).

In the 1920s a few institutions established junior year abroad (JYA) programs for their students, with the University of Delaware sponsoring the very first JYA program in Paris in 1923 (Edwards et al., 2005; Stearns, 2009). These programs were typically founded by faculty at the U.S. institution and focused on language and culture immersion (Edwards et al., 2005). Even though the students from the University of Delaware were all male, several private women’s colleges developed their own programs, including Marymount in 1924, Smith in 1925, and Rosary College in 1925 (Edwards et al., 2005). By the 1920s, several institutions, such as Georgetown University, had also established short-term summer tours led by faculty (Hoffa, 2007).

In addition to the first language and cultural programs, the first “World University” left port in 1926 for its inaugural seven-month tour (Edwards et al., 2005). This was a shipboard cruise classroom and on its first tour it had 504 students with 35 U.S. teaching faculty on board to provide instruction as it visited various sites around Europe (Edwards et al., 2005). The outbreak of World War II prevented any further development of study abroad programs (Edwards et al., 2005).
The end of the Second World War marked several developments in international educational exchange (Bowman, 1987; Edwards et al., 2005; Hoffa, 2007). J. William Fulbright, a senator from Arkansas, had studied as a Rhodes Scholar at Oxford in England and felt that these opportunities to study abroad had enriched him. In 1946 he sponsored the Fulbright Act, which created a binational exchange of scholars from many different academic and professional fields in over 150 countries (Fulbright Commission, n.d.). More importantly for the study abroad profession, the term study abroad was first used during this time, as colleges and universities were sending students during their sophomore or junior year, and a broader term besides junior year abroad was necessary (Bowman, 1987).

The Institute for International Education (IIE) created a formal committee in 1947 to coordinate junior-year programs (Bowman, 1987). During 1947 various academic groups wanted to create a travel program; the result was the Council of International Education Exchange (CIEE) (Mikhailova, 2003). During this period, colleges such as Middlebury College reorganized their study abroad programs to allow for graduate students in foreign languages to study for one year in either Paris or Madrid, and then later incorporated undergraduate students (Bowman, 1987). All of these models were considered direct enrollment: students may have had a home university faculty member accompany them, but they took courses with local students at a host university (Bowman, 1987; Hoffa, 2007).

By the late 1950s, some colleges began to develop alternatives to this model, such as Antioch College developing a study/work program abroad similar to the model on its home campus, and institutions such as Stanford actually creating campuses overseas in
Stuttgart and Florence (Bowman, 1987). Other institutions, such as Hollins College and Oberlin College, created academic programs that incorporated a program abroad for all students (Bowman, 1987).

Attention turned away from Europe to Latin America during the 1950s when the U.S. Department of State offered financial incentives to institutions creating undergraduate overseas programs in Latin America, resulting in Indiana University opening up a site in Peru, the University of Kansas setting up in Costa Rica, and Colgate University creating a program in Argentina (Bowman, 1987).

In the 1960s, with the proliferation of number and type of study abroad programs, national organizations such as IIE and CIEE began to organize conferences and formal discussions regarding the purpose and academic structure of study abroad (Bowman, 1987; Hoffa, 2007; Mikhailova, 2003). Some of the issues raised are still being debated today, such as whether it is better to send students on programs that focus on developing language skills or whether it is appropriate to organize separate classes for North American English speaking students (Bowman, 1987; Mikhailova, 2003).

By the new century, U.S. institutions began to recognize the importance of providing study abroad programs as part of the educational experience. In 2000, 65% of American campuses had study abroad programs; by 2006, 91% of college campuses reported having some type of study abroad program (Stearns, 2009). While more institutions developed or expanded study abroad opportunities, a focus on campus internationalization efforts also took place (McMurtrie, 2007). Study abroad became international education, and campuses viewed study abroad as important, but also focused on the larger picture, such as how many international students they had on campus, how
many students completed area studies, and how they could “internationalize” the curriculum (Hoffa & DePaul, 2010).

IIE began collecting data in 1948 on U.S. students abroad after receiving funding from the U.S. State Department. However, the data collection methods used at that time would not be considered reliable today (Hoffa, 2007). According to this data, approximately 20,000 students studied overseas in 1951. This number does not separate types of students (undergraduate or graduate) or types of programs. The next report for 1955 reports only 9,455 studying abroad and Hoffa (2007) suggests that poor methodology rather than a decrease in U.S. students abroad may explain this apparent decline. Because IIE relied on foreign institutions reporting the number of U.S. students on their campus, the data were not always consistently reported nor collected (Hoffa, 2007). Despite this rough beginning, the IIE Open Doors report has demonstrated a steady increase in U.S. student participation in study abroad (Hoffa, 2007).

According to the Open Doors report released in November 2010 (Institute of International Education, 2010), U.S. undergraduate participation has increased from 89,000 in 1995 to almost 260,327 in 2008. Almost 55% of U.S. students studied in Europe during the 2008-09 academic year, with the second highest percentage, 15%, studying in Latin America (Institute of International Education, 2010). Fifty-two percent reported majoring in Social Sciences, Business, or Humanities, and 96% studied for either a short-term or mid-length (semester) program (Institute of International Education, 2010). Thirty-six percent of study abroad participants in the 2008-2009 were juniors; 80% were white, with 64% females and 35% males participating (Institute of International Education, 2010).
Participation in study abroad has increased over the past decade, particularly as the result of 9/11 (Stearns, 2009). However, this increase also highlights two major trends: the proliferation of study abroad programs offered in English and the increased participation rate by students outside the private college arena (Stearns, 2009).

*Previous Research on Study Abroad*

With the increase in study abroad participation and a greater need for recognized standards (Forum on Education Abroad, n.d.), researchers and field practitioners have focused on the development of learning outcomes and assessment (Bolen, 2007). Other research in the field has focused on what are presumed outcomes of study abroad, such as language acquisition, level of intercultural development, and learning within a specific discipline (Brecht, Davidson, & Ginsberg, 1993; Engle & Engle, 2004; Paige et al., 2004; Redden, 2007; Vande Berg et al., 2004). In the following sections I present the most recent and relevant research on study abroad in the following categories: language development, personal development, development of attitudes towards diversity, adjustment, intercultural development, and reentry.

*Language Development*

In the mid 1980s, one of the first major longitudinal research projects, known as the Study Abroad Evaluation Project (SEAP), was conducted to examine the impact of study abroad on students and their respective institutions. This study concluded that most U.S. institutions declared foreign language learning to be the major goal of their study abroad programs (Teichler & Steube, 1991). Using data from the same study, Opper et al.
(1990) studied 439 responses from students and reported that students placed a high importance on the ability to integrate and develop relationships with the local population as important to their overall study abroad experience. Additionally, target language gains were reported when students took courses (not foreign language courses) in the target language (Opper et al., 1990).

Researchers have reported increased language proficiency as a result of study abroad (Martinsen, 2007; Segalowitz, Freed, Collentine, Lafford, Lazar, & Diaz-Campos, 2004; Sieloff-Magnan & Back, 2007; Vande Berg et al., 2009). Allen (2002) found that students who completed more than two years of college French prior to their study abroad experience demonstrated significant improvement in language ability after their return and, additionally, he reported more integration into the host culture than students who had less language study experience. Segalowitz et al. (2004) reported similar oral proficiency gains compared to students who studied and did not participate in study abroad; however, researchers also found less formal control of the language for those students abroad—precisely the grammar rules and structure that are emphasized in the classroom.

Unlike earlier studies citing the positive influence of the host family (Schmidt-Rinehart & Knight, 2004; Wilkinson, 1998), Sieloff-Magnan and Back (2007) explored the living situation for students abroad and how it may or may not have contributed to increased language skills. The researchers administered a French language assessment instrument to 20 participants before and after participation in a semester long program in France. They concluded that the living situation and contact with local media, such as watching television, did not seem to predict gains in language proficiency. Additionally, students who spent more time with fellow Americans did not improve their French skills.
Mancheno (2008) counters this with evidence that proximity and interaction with Spanish speakers, particularly in the homestay, increases language ability because this setting promotes interactivity and interaction with the language, which is unavailable when students live in a dorm or apartment with only English speakers. Freed, Dewey, Segalowitz and Halter (2004) created a Language Contact Profile to determine the relationship among time spent with local speakers, activities engaged in during this time, and exposure to English. These studies (Freed et al., 2004; Vande Berg et al., 2009) indicate not only the importance of the living environment, but also suggest that additional structure should be in place to facilitate interaction between participants and local residents.

Does study abroad motivate a language learner? Villalobos-Buehner (2009) interviewed study abroad students to explore their motivations regarding language learning and reported that students on programs where they were learning a language were motivated to employ strategies to further their language learning both during the program and after they returned. In addition to motivation to learn the language, overall academic success seems to be related to language proficiency. Thomas and McMahon (1998) surveyed 1,597 students in the University of California system to determine which characteristics would lead to a successful (meaning increased GPA) study abroad experience. They concluded that the level of language proficiency prior to starting a study abroad experience is a factor in explaining the variance on GPA on study abroad (Thomas & McMahon, 1998).
Personal Development and Study Abroad

When asked about study abroad, many students will talk about what happened outside the classroom rather than inside; specifically, how much they learned about themselves, and their development of self reliance as a result of interactions with locals (Edwards et al., 2005; Hadis, 2005). Stearns (2009) argues that even as early as the 1920s, Americans studying abroad described personal development as one of their goals. It comes as no surprise that students today frequently report this as part of the experience. Cash (1993) distributed surveys at the conclusion of three study abroad programs to ask students about their experience and to rate their own intercultural growth and personal development. With approximately 225 students completing the survey, he found that students self-reported growth in the following areas as a result of study abroad: appreciation and understanding of cultural differences, growth in independence and maturity, greater self-awareness, greater tolerance for different people and ideas, and growth in interpersonal skills.

Lathrop (1999) administered the Student Developmental Task and Lifestyle Assessment (SDTLA) to measure the psychosocial development of students who studied abroad ($n = 40$) compared to students who did not study abroad ($n = 30$). She concluded that students who studied abroad scored significantly higher on certain developmental tasks measured in the SDTLA, such as Academic Autonomy, Tolerance, and Educational Involvement (Lathrop, 1999). She did not investigate the degree to which program characteristics, such as living situation and language ability, may impact the level of development measured by the SDTLA.
Hadis (2005) distributed surveys to 95 study abroad returnees who had participated in study abroad between 1997 and 2002 to ask them about their interest in international issues, attitudes towards non-English speakers, fluency of foreign language, and familiarity with other countries. In lieu of a pre-and post-test design, he asked students who had already participated in study abroad to recall their positions about these issues prior to participating in study abroad and then after they studied abroad. Even though he relied on retrospective self-reporting, he concluded that the study abroad participants increased their knowledge and interest of global affairs, learned more about their host country, and showed increases in personal development as defined by more independence, extroverted behavior, and a greater acceptance of foreigners and non-native English speakers. Laubscher (1994) conducted a phenomenological study interviewing 30 students to understand how they utilized ethnographic strategies to observe, reflect, and learn in an international environment. However, he did not focus on how specific study abroad program components contributed, or inhibited, to participant’s personal or intercultural growth (Laubscher, 1994).

Kauffmann et al. (1992) suggest that a student’s first cross-cultural experience is more likely to produce personal growth than to increase in-depth cultural and global understanding. They based this finding on in-depth interviews and case study analysis of four students from the same institution who had studied abroad for a semester. The researchers also proposed that students who begin a study abroad program with a higher level of personal development experience more growth in the area of international learning (Kauffmann et al., 1992). Despite the rich detail and context of the individual
participant stories, it is difficult to generalize this research to a larger study abroad population.

**Development of Attitudes**

Many previous research studies have focused on the development of attitudes of students who have participated in study abroad. Forgues (2005) examined study abroad participant attitudes on diversity and culture and concluded that students who have already studied abroad are more interculturally sensitive and more open to diversity than those who have not studied abroad. Wortman (2002) demonstrated through a pre-and post-test design that students who study abroad show measurable gains in development in terms of openness to diversity. Interestingly, students who studied in a country whose primary language was English demonstrated a further clear and significant increase in openness to diversity. Wortman (2002) suggested that perhaps the ability to speak the language fluently allowed students to better understand and appreciate the diversity of the culture in which they studied.

Similarly, Douglas and Jones-Rikkers (2001) found that business students who studied abroad demonstrated a higher level of “worldmindedness” than those students in the control group who remained at home. In this study, “worldmindedness” was defined as the extent to which individuals value global perspectives on various issues. Additionally, Douglas and Jones-Rikkers found evidence that students who studied in locations that were significantly different from their home culture also demonstrated a slight increase on the scale than those who studied in western countries whose cultures do not differ as much from the U.S. culture (Douglas & Jones-Rikkers, 2001).
Ward and Kennedy (1999) examined cross-cultural adaptation of students living abroad from Malaysia, Singapore, Japan, China, New Zealand, and Britain. They first defined cross-cultural adaptation as the combination of sociocultural factors, including the ability to change behavior to the host country cultural norms, and the psychological, that they defined as the emotional or affective reaction to the new environment, which in most cases involves an increase in the sojourners stress level. They developed an instrument known as the Sociocultural Adaptation Scale (SAS) and distributed the SAS to 16 different sample groups, including study abroad students and older adult expatriates, for a total sample of 1,800 participants. Their data suggest that fewer adaptation problems are encountered by those individuals with good financial resources and by those who make transitions to environments that are similar to their own home culture (Ward & Kennedy, 1999). Although this study did not focus exclusively on study abroad students, it is interesting to note that the authors did find evidence that similarities or differences of the new cultural environment could influence an individual’s adaptation process.

Ryan and Twibell (2000) conducted a longitudinal study on 70 American students who studied in European countries for at least one or two semesters. All of these students were in a direct enrollment program at the foreign institution, meaning that they did not have a cohort of fellow U.S. exchange students from their home institution. The researchers distributed five instruments at three distinct times: prior to departure, two months after beginning the program, and after the students returned to the U.S. In addition to attempting to measure stress levels, coping ability, and adaptation via surveys,
the researchers also asked students open-ended questions to identify their biggest challenges and stressful situations. The participants identified two primary reasons for anxiety after studying abroad for two months: social isolation, particularly the inability to make friends and establish new social groups upon arrival, and lack of ability to communicate in a meaningful way in the host country’s language. Students in this study also self-reported increased academic knowledge and experiencing “learning moments” outside the classroom environment both after arrival in-country and at the end of the program. The researchers concluded that even though students acknowledge the positive impact on their academic career, more should be done to prepare students prior to their study abroad experience to alleviate the initial anxiety reported at the beginning of the program (Ryan & Twibell, 2000).

Arthur (2001) utilized critical incident methodology during a 7-week study tour in Vietnam to better understand the process of adjustment for students from Canada. Her findings suggest that students who are able to adjust the way they relate to others will report having a greater appreciation of the host culture as well as a willingness to consider alternatives to their own internal value system (Arthur, 2001).

*Intercultural Development*

Chen (1997) defines intercultural competence as an individual’s behavior that has been informed by both a cognitive process (intercultural awareness) and affective process (intercultural sensitivity). For example, if an individual knows information about a culture, such as the type of greeting that is appropriate in a formal social situation, this is cognitive knowledge. By acknowledging that she is in fact in another culture and should
respect the formal customs normally engaged in this situation, she is demonstrating mature affect. Finally, she demonstrates intercultural competence by deciding to act on this knowledge.

How does one develop intercultural competence? Spitzberg and Changnon (2009) conducted a literature review and included 26 different models from disciplines as varied as human resources, psychology and communication in addition to 11 concepts with a total of 57 factors. These included two developmental models in intercultural communication and maturity. King and Baxter-Magolda (2005) created a complex, multidimensional model including a wide range of attributes. This includes cognitive recognition (knowledge of cultural differences), interpersonal (how they view themselves in their own culture), and intrapersonal (how they relate to others around them). It is also important to note that this is a holistic, developmental process and individuals are expected to grow in this capacity after more and more encounters with difference (King & Baxter-Magolda, 2005). While this model is deeply complex and rich, it does not lend itself easily to categorization or measure, which provides a challenge for researchers wishing to examine this model further. Bennett (1993) also proposes a theory that is developmental, where individuals move from ethnocentric stages, including denial, defense and minimization, to ethnorelative stages, moving towards acceptance, adaptation, and integration. Both of these developmental models help provide a richer understanding of the growth of intercultural effectiveness, namely, this growth does not happen instantly, but is a result of time with many significant encounters.

But how do researchers determine if a student has developed intercultural competence or developed in this area? How is this measured? One way is to investigate
cross-cultural effectiveness (Kitsantas & Meyers, 2001). Kitsantas and Meyers measured cross-cultural effectiveness using an instrument known as the Cross Culture Adaptability Inventory (CCAI). This instrument is purported to measure the development of cultural empathy and communication competence. Students who studied abroad scored higher on the CCAI than those that did not participate in study abroad (Kitsantas & Meyers, 2001).

Hammer (1999) developed the Intercultural Development Inventory (IDI) to measure the developmental stage of intercultural competence based on Bennett’s (1993) developmental model of intercultural sensitivity. Shaheen (2004) administered the Intercultural Developmental Inventory (IDI) as a pre- and post-test to 45 students, 37 of whom who studied abroad and 8 who remained on campus, and concluded that two different conditions increased the likelihood that students would have a significant increase in intercultural sensitivity—having parents who had overseas experiences and being a non-majority student. However, he was unable to determine a statistically significant difference in the level of intercultural sensitivity between the group that studied abroad and the students who remained at the host institution (Shaheen, 2004).

Medina-López-Portillo (2004) examined the development of intercultural sensitivity for participants on study abroad by administering the IDI to 28 students, one group who studied in Mexico for 7 weeks and the second group who studied for 16 weeks. She was unable to demonstrate a statistically significant difference in the levels of intercultural sensitivity as measured by the IDI. However, after conducting interviews she concluded that program length was the greatest factor associated with positive change in intercultural sensitivity. Other important variables included previous travel abroad, having a diverse family, and age of participant (Medina-López-Portillo, 2004).
Alred and Byram (2002) reported that study abroad students who demonstrate an increase in intercultural competence also reported using previous knowledge about the culture to help determine their interactions with the local population. Fernandez (2006) surveyed 244 students who studied abroad and found that students who reported higher levels of participation and activities in the daily lives of local people also reported higher levels of positive cross-cultural interactions and increase in cross-cultural knowledge. Her study is unusual in that she has a relatively large sample size.

Talburt and Stewart (1999) studied a group of 35 American students studying in Spain for five weeks. Most of the participants lived in U.S. student residences, but a few lived in homestay families. During the course of the program, the researchers observed the way in which students emphasized their relationships with other Americans on the program as the result of feeling like outsiders within Spanish culture. However, the researchers recorded classroom interactions in which the 34 white students would make culturally insensitive statements about African Americans, despite there being a participant who was African American. The researchers encourage study abroad programs to include a curriculum that helps U.S. majority white students to relate their feelings of being a cultural outsider with the experience of minorities who are cultural outsiders in the U.S. (Talburt & Stewart, 1999).

Hoff (2005) compared student perceptions of the culture learning process of two groups of students who studied abroad. Group one used a culture learning guide developed by the University of Minnesota and group two did not use this guide. This guide contained several exercises and prompts to encourage students to think more about the “how” of culture learning. His results suggested a difference between the two groups
in their ability to explain their culture learning process. Using critical incident methodology, group one was able to articulate and demonstrate knowledge of host country culture to a greater extent than participants in group two. Overall, Hoff suggests that students who experience guided reflection or direction during their study abroad experience will be better able to process new experiences and apply new skills and behaviors (Hoff, 2005).

Reentry

While individuals may anticipate challenges when arriving in a new country where language and customs may be unfamiliar, they do not expect to have adjustment problems upon their return (Stowe, 2003). Most early researchers examining the effects of reentry focused on two groups: business persons working overseas and Peace Corps volunteers. Storti (2003) emphasizes that returnees are often unprepared for how their sense or memory of home has changed in the time they have been absent—while they may expect everything to be wonderful, it can be quite challenging when it turns out to be the opposite. Adler (1981) studied the reentry process for Canadian managers upon return to the home company environment and found they had more difficulty adjusting to life at home than their reported adjustment in their international assignment.

Sicola (2003) interviewed seven individuals who worked abroad for one year and reported several common themes, including feeling overwhelmed upon return and having difficulty negotiating the new habits they picked up while abroad, especially communication styles, as well as integrating these upon return home. Sicola also noted a connection between level of reported acculturation while abroad and reentry experience.
Arthur (2001) found that for students returning to Canada, reentry experience depends on the degree of the acculturation into the host culture.

Seiter and Waddell (1989) created the Reentry Shock Scale (RSS) to measure reentry shock. The RSS is an instrument based on the theories of the locus of control for affiliation beliefs (Lefcourt, 1981) and interpersonal uses of communication (Rubin, 1987). Seiter and Waddell surveyed 54 returned students to ask about their reentry experiences and newly developed skills. These students self-reported improved interpersonal skills, improved relationships with family members and increased intrapersonal knowledge. Gaw (1995) used the RSS instrument to study the transition of U.S. citizens who attended high school outside the United States and attended college in the U.S. and found as reverse culture shock increased, the level of academic or support services sought decreased.

**Summary Statement**

All of the studies cited above examined particular learning outcomes (language development, development of student attitudes, intercultural development) for students participating in study abroad. Some of these studies also provide some initial evidence that activities or characteristics of study abroad programs may have an impact on how students learn about the host culture. Next, I will provide some context for thinking about study abroad program classifications. These classifications are important because they provide the basis for the study abroad program characteristics I examined in this study.
Study Abroad Program Classifications

Study abroad administrators in the mid-1980s characterized study abroad programs in terms of the structure of the academic portion of the program (Goodwin & Nacht, 1988). Programs were considered “total immersion” if the student took one full academic year of coursework in a foreign institution conducted in that foreign language. Further down the scale were programs in which students took courses at institutions affiliated with universities, mostly language schools, or on American campuses overseas for a semester or less (Goodwin & Nacht, 1988). Subsequently international educators collapsed these various categories of study abroad programs into three main classifications based on the overall design of the program: Island, Hybrid, and Direct Enrollment (Hoffa & Pearson, 1997).

In contrast to previous classifications, this structure recognized additional features such as living arrangements. “Island” programs essentially replicate a U.S. college or university academic environment in an international setting. The instructors are usually U.S. citizens, typically faculty from the home institution sent abroad with a group of students. Since student participants typically lack the language ability to participate in courses in the host language, the majority of the coursework, with the exception of language training, is in English. Most “island” programs may be affiliated with academic institutions, such as universities, in the host city. However, the academic component may also take place in a separate building away from the main host campus. Student participants live, learn, eat, and travel with the other participants in the program, usually fellow North Americans (Goodwin & Nacht, 1988; Hoffa & Pearson, 1997).
In contrast, direct enrollment programs allow participants to take classes with local students. Students in these types of programs select courses from the host institution’s curriculum, thus taking classes side by side with local students. These programs may include an American staff member or local host national who assists the participants in enrolling in courses and arranging for local housing. Due to the independence and communication skills required to participate, most students in direct enrollment programs have intermediate language skills in the language of the host culture (Hoffa & Pearson, 1997).

Hybrid programs combine the immersion environment of direct enrollment programs with the isolationist environment created by the “island” model. Hybrid programs provide some mediating structure to encourage interaction with the local population but also typically include the comfort of support from staff familiar with U.S. culture to provide instruction and assistance during the process of cultural transition. These programs typically exist on the host university campus as a separate component to the university, such as an international center. In addition to language courses, students may enroll in content courses (History, Art History, Literature, etc.) taught especially for non-native speakers of the local host language (Hoffa & Pearson, 1997).

In the past year study abroad researchers have developed a more nuanced classification system, designed to address program structure rather than focus on type of student enrollment (Comp, Gladding, Rhodes, Stephenson & Vande Berg, 2007). The Forum on Education Abroad has proposed a classification system which includes seven recognized program characteristics:
1. Study abroad program length
2. Student pre-departure language competence
3. Required second language use, in class and out (when applicable)
4. Context of academic work (five scenarios: home institution faculty accompany students, home institution faculty teach courses on-site, courses specifically organized for North American Students, courses organized for non-native students in general, or students enrolled with native students in university coursework)
5. Presence or absence of mentoring, of cultural reflection—on-site mentoring that provides for reflection on all learning
6. Whether students are required to participate in experiential learning initiatives
7. Type of student housing

(Vande Berg, n.d.).

Study abroad program classifications provide a method for thinking about research and outcomes assessment in the study abroad field (Comp et al., 2007). As indicated in the previous section discussing the history of study abroad, study abroad administrators and researchers have discussed from the very beginning of organized academic exchange the extent to which the type of study abroad program may be more “effective,” or more “scholarly” (Bowman, 1987; Hoffa, 2007; Mikhailova, 2003). Even though researchers are beginning to present evidence for specific outcomes of study abroad (Bolen, 2007; Comp et al., 2007), with the exception of a major research studies (Paige, 2007; Vande Berg et al., 2009), there is still a significant gap in examining the
relationship between program classifications, or characteristics, and outcomes such as intercultural effectives and personal development.

*Program Type and Level of Immersion*

Despite the significant differences in the types of study abroad programs from which a student may select, researchers have only begun to suggest how the type and structure of a program may contribute to a student’s ability to immerse in and thus gain an understanding of the host culture (Fernandez, 2006; Hoff, 2005; Paige, 2007). Even though international educators believe that an international experience for students promotes intercultural understanding, educators have given little consideration to whether the type of program may inhibit or promote an opportunity to learn and actually meet the lofty goals that an international experience assumes (Engle & Engle, 2002; Sowa, 2002; Stephenson, 2002).

Carlson, Burn, Useem, and Yachimowicz (1990) reported that data from the Study Abroad Evaluation Project (SAEP) found that a low level of interaction with fellow American students correlated positively with learning about the host cultures, lack of problems experienced abroad, integration into host culture, and academic performance. More than a decade later, Stephenson (2002) reported that program structure influences the level and quality of interactions in which the students engage the local culture. Similarly, students will not develop a deeper understanding of the other culture if they are unable to distance themselves from their own home culture (Engle & Engle, 2002).
Program Structure – Housing Options

Study abroad participants may select a variety of living arrangements while learning abroad. Study abroad programs offer homestays with local host families, residence halls or apartment accommodation either with other international (from outside North America) students or residence hall accommodation with fellow program participants (North American) (Hoffa & Pearson, 1997). As with the design of academic instruction, the living environment may either encourage or discourage the student from interacting with the host culture. Students who keep with the familiar crowd of fellow Americans may not learn much about their host culture since participants report learning the most about their host culture from peers of the local culture (Opper et al., 1990).

Nesdale and Todd (2000) examined intercultural acceptance in a residence hall housing 147 first-year international and local students. The researchers used contact theory (Allport, 1953) as their framework. This theory states that positive contact between members of different cultural groups will improve intercultural relationships between each group. Based on the results of their study, the researchers argued that simply being around another culture within a living environment such as a residence hall will not guarantee meaningful contact between cultural groups and that a program should design an “intervention” to mediate a meaningful exchange between the members of the majority and minority culture. Even though this study does not focus exclusively on study abroad, it is feasible to extrapolate that U.S. students living in a dormitory in a host university setting may be the minority culture, and without appropriate intervention they may not
experience positive contact with other cultural groups in the living area (Nesdale & Todd, 2000).

The type of living arrangement can shape the impression and the tenor of the study abroad experience. Halpern and Hodinko (1992) surveyed 671 American undergraduates studying in Israel about their biggest difficulties. The most frequently cited difficulty was the living arrangement and was attributed by the students to causing the most frequent adjustment difficulties. Most of these students lived in apartments or residence halls and reported frustration with lack of privacy, lack of space to store and prepare food, and lack of adequate phone facilities (Halpern & Hodinko, 1992). Since this was the early 1990s and prior to the period of Internet and ubiquitous cell phones, this frustration may not be so often reported by today’s students, but what is important is the relationship to the difficulties perceived in the housing situation and how this influenced the experience of the students.

Students who live with host families reported learning more about the local culture through their interactions with the family than through their classroom experience while on study abroad (Alred & Byram, 2002; Kauffmann et al., 1992; Laubscher, 1994). However, the ability to interact with a host family is dependent upon language proficiency. Even though students may report prior to the beginning of a study abroad experience that they intend to seek out informal contact outside the classroom in order to learn about the culture, upon returning students often admit that this was much more difficult to do than they anticipated because of lack of language ability (Mendelson, 2004).
For students who select to stay in homestays, the more language skills they have acquired, the more likely the experience will be successful from both the family and the student’s point of view. Schmidt-Rinehart and Knight (2004) interviewed program directors, students, and host families to learn about their perspectives on the home stay experience. They concluded that adaptation in the home stay environment was significantly easier for students who have more language ability and for students who stayed for at least one semester. Finally, students reported that being able to learn and have the language reinforced in the homestay environment was a complement to their program and that the homestay was their only window to locals (Schmidt-Rinehart & Knight, 2004).

Wilkinson (1998) reports a similar finding in examining the experiences of two students who participated in the same program in France. One student described being very engaged with her host family and using them and other locals to understand French culture. The second student admits never making a connection with her host family and subsequently relying on her fellow Americans in the group for social support. She reported almost no gain in her French language ability or knowledge of French culture (Wilkinson, 1998).

Conceptual Framework

Thus far in this chapter, I have presented study abroad research that focused on some outcomes as well as providing background information for the study abroad program classifications. In the next few pages, I will present the theoretical background
for my own research questions involving my two outcomes: intercultural effectiveness and personal development.

*Universal-Diverse Orientation*

Miville et al. (1999) first introduced Universal-Diverse Orientation as a construct that “describes an attitude of awareness and acceptance of both the similarities and differences among people” (p. 291). Earlier in this chapter I presented a definition of intercultural competence that defined intercultural competence as the behavior informed by both knowledge of the other culture combined with an individual’s mature sense of self (Byram, 1997; Chen, 1997, Kitsantas & Meyers, 2001). Similarly, UDO encompasses cognitive, behavioral, and affective attributes. A person who exhibits a high level of UDO would be open to engage in behavior with others because he/she has knowledge of the culture (or recognizes on an intellectual level the value of interacting with both persons who are the same or different) and would develop an emotional maturity as a result of clarification of his own personal values (Miville et al., 1999). In essence, UDO seeks to operationalize “the appreciation of cultural diversity or the motivation to control prejudice reactions” (Burkhard et al., 2002, p. 356). In this study, I will investigate the level of UDO demonstrated by students who are planning to or just returned from study abroad.

Miville et al. (1999) created an instrument to operationalize and measure the construct of Universal-Diverse Orientation, the Miville-Guzman Universality-Diversity Scale (MGUDS). The first instrument introduced included 45 items, and after four studies was found to have high levels of validity and reliability (Miville et al., 1999).
This same study was able to provide support for the construct validity of the instrument by the correlations among the MGUDS and several established instruments measuring homophobia, dogmatism, and racial identity. Researchers expected the MGUDS to correlate positively with white racial identity and negatively with homophobic attitudes and open-mindedness. The Homophobia Scale (Hansen, 1982) was designed to measure negative attitudes towards gays and lesbians. The White Racial Identity Attitude Scale (WRIAS) (Helms, 1995) was developed to measure the racial identity attitudes of whites and the extent that their racial identity contributed to positive, non-racist development. The Dogmatism Scale (Troldahl & Powell, 1965) is used to assess the extent of open-mindedness and close-mindedness. The MGUDS and the three instruments were distributed to 93 white university students. Specifically, the MGUDS significantly and positively correlated with the WRAIS scale (.48), and there were significant negative correlations with the Dogmatism Scale (−.27) and Homophobia Scale (−.33) (Miville et al., 1999).

A year later, Fuertes, Miville, Mohr, Sedlacek, and Gretchen (2000) introduced a 15-item scale of the MGUDS which they called the Miville-Guzman Universality-Diversity Scale–Short (MGUDS-S). The authors administered the MGUDS-S in three studies and confirmatory factor analysis confirmed that the MGUDS-S measured UDO as a construct in the behavioral, cognitive, and emotional dimensions as reliably as the original 45-item instrument. In addition, the researchers provided evidence in both the reliability and validity of three subscales: Diversity of Contact (behavioral), Relativistic Appreciation (cognitive), and Comfort with Differences (emotional), allowing for future
researchers to examine relationships among the three subscales and other factors (Fuertes et al., 2000).

**UDO in the Research**

Because UDO developed within the field of counseling psychology, it comes as no surprise that the first research studies exploring the UDO attributes were in the field of multicultural counseling education. Munley, Lidderdale, Thiagarajan, and Null (2004) examined the relationships among the Self-Identity Inventory (SII), Universal-Diverse Orientation, and multicultural counseling competence, as measured by the Multicultural Knowledge and Awareness Scale (MCKAS). Their initial findings suggested a relationship between the Awareness scale of MCKAS and UDO, although not at a statistically significant level (Munley et al., 2004).

Researchers have also examined the relationships among UDO and other attitudes and psychological measures, such as empathy, wellness, and self-esteem. Miville, Carlozzi, Gushue, Schara, and Ueda (2006) examined the relationship between UDO, emotional intelligence, and empathy in 211 students in a graduate counseling program. Researchers found that UDO was significantly, but modestly, related to empathy in this study (Miville et al., 2006).

In a study of almost 300 undergraduates, researchers examined the relationships between UDO and wellness, specifically self-efficacy (belief in oneself as a confident person), problem-focused coping (ability to problem-solve), personal self-esteem, and collective self-esteem. MGUDS-S subscales were significantly predicted by general self-efficacy, problem-focused coping, and collective self-esteem, with self-efficacy being the
highest. Thus, students who scored high on the UDO would be considered to have
developed attitudes, skills and behaviors that allow them to interact with others who are
different or similar and adjust accordingly (Miville, Romans, Johnson, & Lone, 2004).

Singley and Sedlacek (2004) examined UDO and high school senior academic success in 2,327 incoming first-year students at a large public university. The goal was to see if students who were academically successful would be more or less favorable to diversity on campus. Results indicated that students who reported being in the top 25% of their high school class also were likely to have a higher overall UDO score. Their results indicated a significant relationship between students who reported being in their top graduating high school class and two of the three subscales on the MGUDS-S: Diversity of Contact and Comfort with Differences. For the third subscale, Relativistic Appreciation, there was not a significant relationship. Their research also suggests a way to use the UDO construct and the MGUDS-S as a “measurement” to determine interventions or treatments to develop multicultural competence (Singley & Sedlacek, 2004).

Recognizing that UDO may have an impact on diversity and how important diversity is in the workplace, Strauss and Connerley (2003) surveyed 252 undergraduate business students to explore the relationships among race, gender, agreeableness, openness to diversity, and UDO. Their findings suggest that agreeableness and openness to diversity (as measured by the International Personality Item Pool) were the most important predictors of a student’s attitude towards diversity, as measured by the MGUDS-S. The researchers went on to suggest that this relationship was emphasized by the behavioral subscale (Strauss & Connerley, 2003).
Psychosocial theories of personal development attempt to explain how individuals develop as a result of the way their response to critical issues during key moments of their lives as well as how individuals developing and their understanding of their relationships with others (Evans, Forney, & Guido-DiBrito, 1998). Erikson (1968) argued that individuals approached each new developmental stage as a result of a combination of biological, psychological, and environmental factors that created the context for the potential of personal insight and growth. Individuals “grew,” or entered a new stage, as a result of a crisis when their current patterns of behaving and thinking were not providing sufficient information to help them address a new environment or idea. Erikson believed that individuals would not proceed to the next stage until they had developed physical, intellectual, and emotional skills or attributes to address each new complexity.

While Erikson did not work directly with college students, Arthur Chickering used Erikson’s theory as a basis for exploring development during the young adult college years (Evans et al., 1998). Chickering (1969) developed one of the most recognized developmental stage theories to explain psychosocial development in college students (Foubert, Nixon, Sisson, & Barnes, 2005). Chickering outlined seven vectors of development. He called them vectors to convey a sense of movement and direction. Although the model is considered linear, Chickering and Reisser (1993) also argue that individuals may move up or down the vectors as if they were a spiral, depending on how they respond to new challenges.
In 1993, Chickering and Reisser revised his theory in response to several critiques ranging from the limitations of the sample size (white males at a private institution) to the disregard of important developmental factors in women and minorities (Bruess & Pearson, 2000; Chickering & Reisser, 1993; Evans et al., 1998). Bruess and Pearson (2000) argue that the charges of bias on the original theory result from a focus only on the development of college males and as a result, the developmental emphasis is on independence and autonomy. In 1993, Chickering and Reisser introduced an updated theory with an emphasis on both developing the individual and fostering connections with other individuals and groups. The seven vectors are: developing competence, managing emotions, moving through autonomy towards interdependence, developing mature interpersonal relationships, establishing identity, developing purpose, and establishing integrity.

Chickering and Reisser (1993) renamed the 5th vector from freeing interpersonal relationships to developing mature interpersonal relationships and moved this prior to establishing identity to recognize that a student’s relationships with others influenced tremendously the student’s own sense of self (Bruess & Pearson, 2000). In addition, the authors placed more emphasis on importance of establishing interdependence as opposed to independence. Thus, the vector previously called developing autonomy is now called moving through autonomy toward interdependence. The authors also emphasized the intercultural aspects of tolerance as an important part of developing mature interpersonal relationships (Chickering & Reisser, 1993). The identity vector was also expanded to include identity issues pertinent to minorities and women, such as gender, sexual orientation, and recognition of cultural heritage (Bruess & Pearson, 2000).
Chickering’s Vectors in Research

Chickering (1969) based his theory on interviews with students at the institution where he worked. One of the first quantitative instruments designed based on Chickering’s developmental vectors was the Student Developmental Task Inventory, or SDTI (Winston, Miller, & Prince, 1979). Winston and colleagues developed an updated edition in the 1980s, the Student Developmental Task and Lifestyle Inventory (SDTLI) (Winston & Miller, 1987).

Researchers used the SDTLI to determine the level and progression of a student’s developmental stages and compared the results to Chickering’s original theory (Cooper, Healy, & Simpson, 1994; Foubert et al., 2005; Hess & Winston, 1995). In general, the results provided some evidence of a progression through the stages as students grew older, as well as indications that more involvement in campus based activities led to a higher level of development (Cooper, Healy, & Simpson, 1994; Foubert et al., 2005; Hess & Winston, 1995). Finally, the results from these studies suggested that women generally achieved a higher developmental level than men during the college years (Cooper et al., 1994; Foubert et al., 2005; Hess & Winston, 1995).

The most current version of this instrument, and the one that will be used in this study, is called the Student Developmental Task and Lifestyle Assessment (SDTLA) (Winston et al., 1999). The SDTLA measures three main tasks based on Chickering and Reisser’s (1993) vectors: (1) Establishing and Clarifying Purpose, (2) Developing Autonomy, and (3) Mature Interpersonal Relationships task (Macari, Maples, & D’Andrea, 2006).
Main Tasks, Subtasks, and Indicators for SDTLA Instrument

The Establishing and Clarifying Purpose task includes four subtasks: Educational Involvement, Career Planning, Lifestyle Planning, and Cultural Participation, including how often students participate in cultural events. Students who score high on this task generally have developed intentional educational goals and are proactive learners. They have also reflected on their own education and skills and have planned career goals that match, or are at least congruent, with their educational experience. Students who score high will also have a well developed sense of their own values and will make plans to pursue an adult lifestyle that reflects this. Finally, they are active in both social events that are a part of their own identified culture but also interested in the cultural events of other groups (Macari et al., 2006; Winston et al., 1999).

The Developing Autonomy task includes Emotional Autonomy and Interdependence. Students who score high on this task are able to act independently and see themselves separately from others. They demonstrate autonomy in many facets of their lives, including in their academic planning and emotional attachments from parents, friends, and others who have influence. Despite the importance of independence placed within this task, students should also be able to demonstrate an ability to respect the interconnectedness and interdependence inherent in healthy and positive relationships (Macari et al., 2006; Winston et al., 1999).

Finally, the Mature Interpersonal Relationships tasks include the subtasks of Peer Relationships and Tolerance. Students who score high on this task have demonstrated evidence of healthy levels of dependence and independence with peers. They also
demonstrate a high respect and acceptance of individuals with backgrounds different from their own (Macari et al., 2006; Winston et al., 1999).

Research Using the SDTLA

Wachs and Cooper (2002) conducted a study designed to establish construct validity for the SDTLA by demonstrating the instrument would be sensitive enough to measure psychosocial growth and development during the college experience. While they reported that the scores on most of the tasks/subtasks increased from freshmen to senior year, they could report only at the aggregate level as the sample was not large to show this to be conclusive for individual participants.

Martin (2000) conducted a longitudinal study by administering the SDTLA to students in their first year and then four years later when they were seniors. He concluded that there was evidence to show a relationship between student-faculty interaction and the establishment of purpose; students who reported frequent faculty interaction also demonstrated a higher achievement in the establishment of purpose task.

Macari, Maples, and D’Andrea (2006) examined the psychosocial development of traditional and non-traditional students with the results indicating that non-traditional students scored significantly lower than traditional students on all three tasks measured in SDTLA. The researchers speculated that non-traditional students may be involved in other significant events outside of the college environment, such as working or family obligations, that prevent them from taking advantage of the advising and career planning offered to students. Additionally, as non-traditional students may view themselves as different from their more traditional peers in the classroom, they may not be able to
establish an independent or interdependent relationship with others and also be unable to participate in cultural activities that would foster an acceptance of others from a different background (Macari et al., 2006).

Lunceford (2001) examined development task achievement in student athletes by administering the SDTLA to students of various years participating in various college sports. He reported the largest difference in scores to be between women and men and academic class levels, the more senior a student the higher the score. Tatum (2002) examined how participation in an intercollegiate football program may impact student development as measured by the SDTLA instrument. However, his results were reported as inconclusive due to the small sample size (Tatum, 2002).

Armstrong (2004) administered the SDTLA to students participating in three different types of service-learning curricular and co-curricular programs and reported that statistically significant gains occurred in the more intensive week long service learning program. Campbell (2002) and Porterfield (2000) both administered the SDTLA to students participating in programs designed to address the developmental stages as theorized by Chickering and Reisser (1993) and found that there were higher or equal levels of development in the students who participated in this program and the normative sample.

As discussed earlier, Lathrop (1999) administered the Student Developmental Task and Lifestyle Assessment (SDTLA) to measure the psychosocial development of students who studied abroad \((n = 40)\) compared to students who did not study abroad \((n = 30)\). She concluded that students who studied abroad scored significantly higher on certain developmental tasks measured in the SDTLA, such as Academic Autonomy,
Tolerance, and Educational Involvement (Lathrop, 1999). She did not investigate the degree to which program characteristics, such as living situation and language ability, may impact the level of development measured by the SDTLA.

Summary of Theoretical Framework

In this section I have presented information regarding the theoretical context for my research questions. Universal-Diverse Orientation (UDO) is a theory that attempts to describe the extent to which an individual has knowledge, skills and empathy when interacting with others (Miville et al., 1999). The MGUDS-S is an instrument created to measure the level of UDO in individuals and has already been used in research studies (Fuertes et al., 2000). Chickering and Reisser (1993) formulated a psychosocial development theory to explain how college students reach new developmental stages. The SDTLA is a recognized instrument used to measure a student’s level of development (Armstrong, 2004; Campbell, 2002; Lunceford, 2001; Macari et al., 2006; Martin, 2000; Porterfield, 2000; Wachs & Cooper, 2002).

Summary of Chapter

In this chapter, I began by narrating a brief history of study abroad within the context of higher education. I presented research examining some of the presumed outcomes of study abroad, including language development (Allen, 2002; Opper et al., 1990; Sieloff-Magnan & Back, 2007; Teicher & Steube, 1991) personal development (Cash, 2003; Edwards et al., 2005; Hadis, 2005; Lathrop, 1999; Wortman, 2002), and intercultural effectiveness (Alred & Byram, 2002; Fernandez, 2006; Kitsantas & Meyers,
2001; Medina-López-Portillo, 2004; Shaheen, 2004). I also presented context for the study abroad classification system and how study abroad program characteristics contribute to outcomes of study abroad (Comp et al., 2007; Goodwin & Nacht, 1988; Hoffa & Pearson, 1997). Finally, I presented important theory related to both intercultural effectiveness, *universal diverse orientation* (Miville et al., 1999) and psychosocial development theory of college students (Chickering, 1969; Chickering & Reisser, 1993).

Study abroad administrators and researchers promote study abroad as a curriculum that advances personal development and intercultural effectiveness. With some exceptions (Fernandez, 2006; Georgetown Consortium Research Project, n.d.; Thomas & McMahon, 1998; Vande Berg et al., 2009), most of these studies included small sample sizes of less than 75 participants and some were not able to demonstrate any statistically significant differences in these areas between students who studied abroad and those that remained on their home campus (Medina-López-Portillo, 2004; Shaheen, 2004). More research is necessary to thoroughly explore the relationship among program design, intercultural effectiveness, and personal development. The MGUDS-S has not been utilized in the realm of study abroad and this presents an opportunity for me to utilize an instrument that could potentially validate the level of intercultural effectiveness for study abroad participants.

Even though the SDTLA has been used to measure a participant’s level of personal development as a result of study abroad (Lathrop, 1999; Wortman, 2002), the studies are limited in number. Because personal development is such a highly cited goal (Cash, 1993; Edwards et al., 2005; Hadis, 2005; Stearns, 2009), researchers should attempt to determine appropriate instruments to be utilized in the future. The proposed
study, therefore, will address a gap in the research on study abroad by utilizing a new instrument to measure intercultural effectiveness, attempting to replicate success by using the SDTLA, and contributing further to the research by examining the relationship of personal development and intercultural effectiveness to specific study abroad program characteristics. In the following chapter I describe the design and execution of my study.
CHAPTER III

METHODOLOGY

In this chapter I present my research methods, including a description of the overall design of the study and justification for that design, the subject population and setting, instruments, and data analysis procedures. The research questions being addressed in this study are:

1. To what extent does a cohort of students who study abroad demonstrate a higher level in personal development as measured by the Student Developmental Task and Lifestyle Assessment (SDTLA) than a) cohort of students who have not yet studied abroad and b) a national sample of university students who have taken the SDTLA?

2. To what extent does a cohort of students who study abroad demonstrate a higher level in intercultural effectiveness as measured by the Miville-Guzman Universality Diversity Scale–Short (MGUDS-S) than (a) a cohort of students who have not yet studied abroad, and (b) a national sample of university students who have taken the MGUDS-S?

3. To what degree do elements of a study abroad program impact personal growth and intercultural effectiveness? The specific program characteristics examined are: language level of participants, required non-English language use (subjects taught in English or local language), on-site student projects, and
type of housing (homestay, residence housing with host nationals, residence housing with North American students).

4. To what extent is personal growth and intercultural effectiveness for students who study abroad sustained over time?

**Design Introduction**

I conducted a non-experimental, cross-sectional study. Developmental cross-sectional studies include samples of at least two or more cohorts within the same population measured at the same time (Bechhofer & Paterson, 2000; Creswell, 1993; Schmidt & Teti, 2005). Non-experimental research does not include a manipulation of the independent variable and is used when an experiment with a control group may not be feasible (Johnson & Christensen, 2008). In this case, since almost 85% of the student population at Michigan College participates in study abroad during their four years, the possibility of establishing a control group who did not study abroad would be difficult.

I invited 578 students to complete a web based survey. Web based surveys offer several advantages. They provide a low-cost method of survey distribution and may prevent data entry error during the data analysis phase (Umbach, 2004).

The survey included two instruments developed by other researchers. This first is the Student Developmental Task and Lifestyle Assessment (SDTLA) developed by Winston, Miller, and Cooper (1999). The second instrument is the Miville-Guzman Diversity Scale–Short form (MGUDS-S) designed by Fuertes et al. (2000). The SDTLA is a well established instrument and has been used by researchers examining personal
development of college students (Armstrong, 2004; Lathrop, 1999; Lunceford, 2001; Macari et al., 2006; Martin, 2000; Tatum, 2002; Wachs & Cooper, 2002).

The MGUDS-S is a relatively newer instrument but has also been used in several studies (Blaich, 2007; Munley et al., 2004; Miville et al., 2004; Miville et al. 2006; Singley & Sedlacek, 2004; Strauss & Connerley, 2003). For this reason, I did not modify either of the instruments, other than combining them in the same survey. Researchers have used these instruments as part of national surveys and I will be able to compare my sample group with a larger data set (Blaich, 2010; Winston et al., 1999). More detailed information regarding the SDTLA and MGUDS-S is located in the Instruments section of this chapter.

This design reflects my intention to study a specific population, study abroad participants at a small private Michigan liberal arts college, in order to explore the relationships between study abroad participant growth in the areas of personal development and intercultural effectiveness and characteristics of study abroad programs.

Setting and Participants

*Michigan College*

Michigan College is a private liberal arts institution located in the state of Michigan. Current student enrollment is approximately 1,300 undergraduate students. The curriculum structure of the college was changed in the early 1960s to include study abroad programs as an optional, but emphasized, component of a student’s degree program. Presently, all eligible students, no matter their academic focus or language
ability, have the opportunity to study abroad in a variety of programs and locations and for varied lengths of time.

Because of these opportunities and the institutional commitment to study abroad, approximately 85% of students participate in the study abroad program. Of the students who participate in study abroad, 80% study the equivalent of two-thirds of the academic year as a junior. Approximately 50% of students study in Western Europe and Australia with the remainder spread among South America, Africa, and Asia.

*Study Abroad Programs at Michigan College*

Michigan College currently offers 41 different study abroad programs on six different continents. Each program has specific admission requirements, but all students who participate must have a minimum GPA of 2.5 out of 4.0. Although some programs have a particular emphasis on certain course offerings, such as biology or history, students may apply to any program as long as they meet the program specific study abroad program pre-requisites. All study abroad participants must attend at least three orientation sessions in order to remain eligible to study abroad. Students also have an opportunity to meet past participants and visiting international students from their future host country on the Michigan College campus.

Michigan College administers 14 of the 41 study abroad programs available to its students. These institutionally administered programs are located in Germany, Spain, France, Ecuador, Mexico, Senegal, Kenya, and Thailand. For these programs, members of the college’s international office are responsible for hiring a local resident director and appropriate faculty as necessary. The resident director is responsible for all aspects of a
student’s experience abroad, including arranging the homestay placement, orientation and excursion programs, and academic oversight. Of the approximately 200 students who study abroad on the typical junior year program, 55% participate in a program administered by Michigan College.

Study Abroad Program Characteristics

Since part of my research examines the extent of personal development and intercultural effectiveness of students who participate in study abroad programs with certain components (Engle & Engle, 2004), it is appropriate to illustrate which Michigan College study abroad programs include the identified characteristics. The factors examined include language competency of student (as defined by language level required for admission), living situation, language of instruction, and student participation in an experiential project in the community. Appendix A provides more information on the characteristics of each Michigan College study abroad program offered to juniors.

Of the 41 study abroad programs offered during the junior year, 30% of the programs have English as the primary language of instruction. Twenty-five percent of the programs include intermediate or advanced language instruction with additional classes taught in the local host language. Almost 50% of students study a language in-country and 55% live with a homestay family.

Programs administered directly by Michigan College also include a component known as the Integrative Cultural Research Project (ICRP). The ICRP is an experientially based project designed to involve students in local community issues with local organizations. The goal is to encourage students to have an experience outside of the
academic classroom within the local culture addressing local issues while using local resources. An on-site ICRP coordinator assists students in identifying and arranging the project. Students must meet on a regular basis with the ICRP coordinator and submit field notes. Typically the students volunteer in a local organization for approximately 3-5 hours per week. However, some programs have designed the projects to be completed in one month, so the student would attend every day for a few hours or more. The final project consists of a written paper and reflection piece. Fourteen programs offer an ICRP and approximately 65% of juniors who study abroad at Michigan College complete an ICRP.

Research Sample

I selected participants using purposive sample methods. Researchers use purposive sampling when they are trying to select participants with specific characteristics (Champion, 2002; Johnson & Christensen, 2008; Kasworm, 2001). All participants are Michigan College students who participated in a two-quarter study abroad program during their junior year at the college. The participants were students in the sophomore year (pre-study abroad participation), students in the junior year (just returned from study abroad) and students in the senior year (one year or more after completing study abroad program). The total number of participants selected was 578, or approximately 195 from each cohort. This number represents the students in each cohort who participated in a semester plus program as a junior.
Instruments

MGUDS-S

Fuertes and colleagues (2000) created a 15-item scale called the Miville-Guzman Universality-Diversity Scale–Short form (MGUDS-S) as a shortened version of the original 45-item MGUDS instrument (Miville et al., 1999) to measure the construct of “universal-diverse orientation” (UDO). Fuertes et al. (2000) administered the MGUDS-S in three studies and concluded that the MGUDS-S measured UDO as a construct in the behavioral, cognitive, and emotional domain. Factor analysis confirmed that the MGUDS-S “measures UDO as a multidimensional construct with three distinct but modestly interrelated domains: behavioral, emotional, and cognitive” (Fuertes et al., 2000, p. 167). The researchers provided evidence for both the reliability and validity of three subscales: Diversity of Contact (behavioral), Relativistic Appreciation (cognitive), and Comfort with Differences (emotional), allowing for future researchers to examine relationships among the three subscales and other factors (Fuertes et al., 2000).

The 15-item instrument is divided into three subscales. Each subscale includes 5 items and I calculated the sum of the six Likert responses in each of the three subscales for a score in each subscale. I then added the three subscales together for a total MGUDS-S score for each participant. Confirmatory factor analysis does not support examining the subscales separately, but there is confirmation that the total score is an indication of where students are on the range of UDO (Fuertes et al., 2000). Therefore, in this study I calculated the total UDO score by adding up the total score of the 15 items. Figure 1 includes some of the major constructs included in the MGUDS-S.
MGUD-S (Fuertes et al., 2000)

Universal-Diverse Orientation

Diversity of Contact (5 items)
- “I am interested in learning about the many cultures that exist in this world.”
- “Knowing about the different experiences of other people helps me understand my own problems better.”

Relativistic Appreciation
- “I attend events where I might get to know people from other racial backgrounds.”
- “Knowing how a person differs from me greatly enhances our friendship.”

Comfort with Differences
- “I often listen to music of other cultures.”
- “Persons with disabilities can teach me things I could not learn elsewhere.”

Figure 1. MGUDS-S Constructs

This instrument is provided free of charge by the researchers (Fuertes et al., 2000). For my purposes, I combined this instrument with the on-line Student Developmental Task and Lifestyle Assessment (SDTLA) so that participants had the convenience of taking both instruments at the same time.

SDTLA

I used the most current version of this instrument in this study. The Student Developmental Task and Lifestyle Assessment (SDTLA) is “based on concepts and principles of human development, specifically that of developmental task achievement that typically occurs within the college setting” (Winston et al., 1999, p. 4).
The SDTLA is a 153-item instrument that measures three developmental tasks: Establishing and Clarifying Purpose Task (PUR), Developing Autonomy Task (AUT), and Mature Interpersonal Relationships Task (MIR) (Winston et al., 1999). These constructs are based on psychosocial student development theory by researchers Chickering and Reisser (1993), which describes student development through college years as a series of developmental tasks, or vectors. A developmental task is “defined as an interrelated set of behaviors and attitudes that the culture specifies should be exhibited at approximately the same chronological time of life by age cohorts in a designated context” (Winston et al., 1999, p. 5).

Each task is scored by identifying the instrument items that compose each task and adding the sum total of values for each task and dividing this number by the number of items to which the student responded. In this way, if a student fails to answer a few items, it is possible to calculate the total score for each task (Winston et al., 1999). For my research questions, I focused on the results from two tasks: Developing Autonomy Task (AUT) and Mature Interpersonal Relationships Task (MIR). Figure 2 includes information on the constructs included in the SDTLA.

Data Collection

I used the web based version of the SDTLA and added the MGUDS-S questions so that students were able to complete the instruments on-line. Educational researchers use web-based surveys as one of their most common methods of data collection (Fetterman, 2002). Web surveys provide researchers with several advantages, including reducing coding error and less cost. Although some researchers have reported lower
response rates to web surveys than paper surveys (Umbach, 2004), given the fact that almost 86% of college students report spending time on-line (Jones, 2002), web-based surveys fit the characteristics of the particular college population to be studied.

**SDTLA** (Winston, Miller, & Cooper, 1999)

**Personal Development**

Establishing and Clarifying Purpose task (PUR) (51 items)
- “I am purposefully developing intellectual skills and personal habits that will assure that I continue to learn after completing my formal education.”
- “I am currently involved in one or more activities that I have identified as being of help in determining what I will do with the rest of my life.”
- “Within the past six months, I have experienced unfamiliar artistic media or performances.”

Developing Autonomy Task (AUT) (51 items)
- “I trust the validity of my values and opinions, even when they aren't shared by my parent(s).”
- “I participate in community service activities.”
- “I have a difficult time in courses when the instructor doesn't regularly check up on completion of assignments.”

Developing Mature Interpersonal Relationships Task (MIR) (24 items)
- “Because of my friends’ urgings, I get involved in things that are not in my best interest.”
- “I don't socialize with people of whom my friends don't approve.”
- “I avoid discussing religion with people who challenge my beliefs, because there is nothing that can change my mind about my beliefs.”
- “A person's sexual orientation is a crucial factor in determining whether I will attempt to develop a friendship with her/him.”

*Figure 2. SDTLA Constructs*
After the appropriate IRB review and approval, each student received an email invitation and a consent form to participate in the study, explaining the purpose of the research and giving information about incentives for participation along with establishing a deadline date for participation. Umbach (2004) suggests that giving participants a deadline will increase the response rate in web-based surveys. Hunt-White (2006) found that offering incentives became a strong predictor as to whether students would complete a web-based survey. I offered participants two free lunches and a study break gift bag. Additionally, the students were able to have the results of the SDTLA instrument emailed to them by Appalachian State University, providing another incentive to complete the survey.

Approximately 24 hours after the initial invitation, students received an electronic message including a link to take the SDTLA and MGUDS-S on-line. Two days after the email with the web survey link, a reminder email was sent. After one week, a reminder was sent. Umbach (2004) suggests that in order to gain a higher response rate, researchers should be willing to send the original email along with three reminders. I sent additional reminders for a total of four invitation emails with a web-link to the instruments.

Students were asked to identify themselves by using their Michigan College student identification number. This identification was necessary because the ability to combine the completed instruments with the biographical information already available in the Michigan College student databases was vital to determine the relationship between possible results on the instrument and the study abroad program selected. I also needed this information in order to distribute the incentives offered for participation. To ensure privacy, the results were collected each week in electronic format. Once I gathered the
appropriate biographical data and distributed incentive items, I removed all student identification numbers from the data set.

The SDTLA and the MGUDS-S results were collected by the web administrator of the SDTLA, the Appalachian State University Research Office. Staff researchers collected the data in an SPSS software file and sent it to me once the data collection process was finished. I combined these data with the biographical data on student participants use a SPSS software package to examine the statistical relationships embedded in my research questions.

Data Analysis

Each participant who completed both instruments had a 168-item data set. As an initial step, I combined this data set with the study abroad program participant information. I then examined the data set to identify any missing items and made sure that the data set was properly coded. I used the SPSS statistical software package to analyze the data. Finally, I generated descriptive statistics for the participants, including the means, standard deviations, and ranges for the various dependent and independent variables.

As a next step, I performed a confirmatory factor analysis in order to test reliability. Reliability testing establishes that the instruments are indeed measuring what they are purported to measure (Wright, 1979). Cronbach’s alpha is one way to determine if the items combining to create the constructs proposed by the researcher fit (Vogt, 2007). Cronbach’s alpha ranges from zero, meaning total inconsistency, to 1.0 when the items correlate with one another perfectly. An alpha of at least .70 is typically considered
satisfactory by researchers (Vogt, 2007). The results of these tests are presented in Chapter IV.

After conducting the reliability test, I used analysis of variance (ANOVA) to examine the comparative research questions, comparing the extent of personal growth (as measured by the SDTLA) and intercultural effectiveness (as measured by the MGUDS-S) between participants in their sophomore and junior year (pre-study abroad compared to those just returning) and from the junior and senior year (those just returning compared to those 1 year post-study abroad). Researchers use ANOVA techniques when comparing two or more independent samples (Wright, 2000). In keeping with common statistical practice, I used an alpha of .05 for all tests (Glass & Hopkins, 1996).

In order to investigate the relationship between specific study abroad characteristics (language level, language of instruction, experiential project, and living arrangement) and the level of personal growth and intercultural effectiveness, I used regression analysis. Researchers use regression analysis to examine relationships between multiple variables (Vogt, 2007).

Conclusion

In this chapter I introduced my research methodology. I conducted a non-experimental, cross sectional study, in essence taking a “snapshot” of separate cohorts of study abroad participants before they study abroad, immediately after they return from abroad, and then one year later, as seniors about to graduate at Michigan College. I did not examine individual changes but focused on aggregate characteristics of the groups. Each cohort, for a total of 578 students, received a web-based survey that included two
separate instruments, the SDTLA and the MGUDS-S. The SDTLA is designed to measure personal development in college age populations (Winston et al., 1999). Fuertes and colleagues (2000) developed the MGUDS-S to measure the level of intercultural effectiveness in counselors working with clients from different ethnical or cultural backgrounds.

Participants received one initial email invitation and then three reminders. After the data collection period concluded, I began the data analysis phase by examining the results of the two instruments between cohorts. I then conducted a confirmatory factor analysis. Finally, I used regression analysis to examine personal development and intercultural effectiveness and the relation to program characteristics, such as language level, housing situation, and participation in a local project during study abroad.

Chapter IV includes details about the results of the study as well as the participants who submitted surveys. In Chapter V I will present a discussion and interpretation of the results. In addition, I will also suggest further areas for research.
CHAPTER IV

RESULTS

In this chapter I present the results of my study. The first section includes general demographic data of the Michigan College student population who completed the two instruments, as well as information on the general student population at Michigan College. In addition, I describe the statistical procedures used to prepare and interpret the data. Finally, I present the results of the data in regards to the research questions.

Demographic Data

In May of 2008, I emailed invitations to three cohorts of Michigan College students who participated in study abroad. A total of 578 students received the invitation that included a link to a web survey: 189 sophomores preparing to depart for study abroad; 209 juniors returned from study abroad; and 180 seniors who completed a study abroad program during their junior year. The web survey included the two instruments used in this study: the Student Developmental Task and Lifestyle Assessment (SDTLA) and the Miville-Guzman University-Diversity Scale–Short (MGUDS-S). The email included brief information about the study as well as a description of the incentive for students who decided to participate. One week later, I sent students a reminder email with another invitation to the study. After two weeks and three email reminders, I received 153 completed surveys and calculated a 26.4% response rate (N = 578), resulting in a margin
of error at the 95% confidence interval, plus or minus 6.8% (Horn, Green, & Martinussen, 2008).

*Description of Participants*

Of the 153 participants, seniors had the highest response rate at 31%, followed by sophomores at 25.3% and juniors at 23.4%. Within each cohort, females had a higher response rates than males. Table 1 presents the number of participants in this study by gender and cohort in comparison to information for the general study abroad population and the overall student population at Michigan College.

**Table 1**

*Survey Participants and General Study Abroad Population by Gender: Sophomores*

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey respondents</td>
<td>5 (10%)</td>
<td>43 (90%)</td>
<td>48</td>
</tr>
<tr>
<td>Overall study abroad population</td>
<td>63 (33%)</td>
<td>126 (67%)</td>
<td>189</td>
</tr>
<tr>
<td>Michigan College population</td>
<td>92 (38%)</td>
<td>149 (62%)</td>
<td>241</td>
</tr>
</tbody>
</table>

Table 2 provides information about the junior cohort. A higher percentage of male juniors responded to the survey than in the general study abroad population. This was also true for female participants in the survey.

Students in the senior cohort participated, as a percentage, more than either the junior or sophomore peers (Table 3). However, unlike the sophomore and junior cohorts,
a smaller percentage of males participated in the survey than are represented in the general study abroad population.

Table 2

*Survey Participants and General Study Abroad Population by Gender: Juniors*

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey respondents</td>
<td>14 (29%)</td>
<td>35 (71%)</td>
<td>49</td>
</tr>
<tr>
<td>Overall study abroad population</td>
<td>77 (37%)</td>
<td>132 (63%)</td>
<td>209</td>
</tr>
<tr>
<td>Michigan College population</td>
<td>105 (40%)</td>
<td>160 (60%)</td>
<td>265</td>
</tr>
</tbody>
</table>

Table 3

*Survey Participants and General Study Abroad Population by Gender: Seniors*

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey respondents</td>
<td>13(23%)</td>
<td>43 (77%)</td>
<td>56</td>
</tr>
<tr>
<td>Overall study abroad population</td>
<td>57 (32%)</td>
<td>123 (68%)</td>
<td>180</td>
</tr>
<tr>
<td>Michigan College population</td>
<td>74(34%)</td>
<td>148 (66%)</td>
<td>223</td>
</tr>
</tbody>
</table>

The survey respondents had a slightly higher mean grade point average than either the general study abroad population at Michigan College or the general student population. Table 4 includes information about the grade point average of students in the survey, the general study abroad population and the overall student population at Michigan College, again, presented by cohort.
Table 4

GPA Survey Respondents, Study Abroad Participants, and Student Population

<table>
<thead>
<tr>
<th></th>
<th>Survey Respondents</th>
<th>General Study Abroad Population</th>
<th>Student Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td>Sophomore</td>
<td>3.50</td>
<td>.34</td>
<td>47</td>
</tr>
<tr>
<td>Junior</td>
<td>3.47</td>
<td>.31</td>
<td>49</td>
</tr>
<tr>
<td>Senior</td>
<td>3.53</td>
<td>.30</td>
<td>56</td>
</tr>
</tbody>
</table>

In addition to academic performance, I reviewed the frequency of study abroad programs by the survey participants in comparison to the general study abroad population. Table 5 presents the seven countries with the highest number of students for both the survey respondents and the study abroad population at Michigan College. The breakdown of participants by cohort and country is representative of Michigan College study abroad participants.

Table 5

Participation Rates: Survey Respondents and General Study Abroad Population

<table>
<thead>
<tr>
<th></th>
<th>Survey Respondents</th>
<th>General Study Abroad Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sophomore</td>
<td>Junior</td>
</tr>
<tr>
<td>Ecuador</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>France</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Italy</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Senegal</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Spain</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Thailand</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>
As part of the initial analysis, I examined the frequencies of all majors participating in the survey ($n = 153$) and the total study abroad cohort ($N = 578$). However, due to the size of the sample and the number of majors available at Michigan College, I decided to collapse this variable and reclassify majors by division. There are currently five divisions at Michigan College: Social Science (Psychology, Political Science, Economics and Business, and Anthropology/Sociology); Fine Arts (Art Studio and Art History, Music and Theatre Arts); Foreign Language and Literature Division (Chinese, Japanese, Latin, Greek, German, French and Spanish); Humanities (English, Religion, Philosophy, and History); and Natural Science (Biology, Chemistry, Mathematics and Computer Science, and Physics). The largest number of participants in the survey majored in the Social Sciences, with the second largest group in the Natural Science. Table 6 includes respondents by division and also by total study abroad cohort at Michigan College.

Table 6

*Research Participants and Total Study Abroad Participants by Major Division*

<table>
<thead>
<tr>
<th>Major Division</th>
<th>Sophomore $n = 48$</th>
<th>Junior $n = 49$</th>
<th>Senior $n = 56$</th>
<th>Total Study Abroad Cohort $N = 578$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Science</td>
<td>15</td>
<td>22</td>
<td>23</td>
<td>216</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>54</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>58</td>
</tr>
<tr>
<td>Humanities</td>
<td>9</td>
<td>1</td>
<td>5</td>
<td>78</td>
</tr>
<tr>
<td>Natural Science and Mathematics</td>
<td>11</td>
<td>15</td>
<td>17</td>
<td>158</td>
</tr>
</tbody>
</table>
Data Considerations

In June of 2008, I received the data results from the Office of Testing Services at Appalachian State University, proprietary distributors of the SDTLA. The data included the participants’ survey answers to two instruments, the MGUDS-S and the SDTLA. In addition to having the individual responses for the SDTLA, the SDTLA results were already tabulated by personnel in the research and evaluation office at Appalachian State University. In this section I will present data results for the instruments.

*Student Developmental Task and Lifestyle Assessment*

The SDTLA results included a raw score as well as a standard score for each task and subtask. A standard score, in this case a “t-score,” is a set of scores with a mean of 50 and a standard deviation of 10. A t-score is another way to compare an individual score with the results of a normative sample of the population who have also taken the SDTLA (Newton & Rudestam, 1999). The instructions included in the analysis indicate that researchers should use caution when interpreting data results from the subscale tasks (Research and Evaluation Uses, n.d.). A reliability analysis was also included the final report and will be presented later in this chapter.

Table 7 presents the SDTLA raw and standard score for each task and subtask for sophomores. Sophomores achieved the highest raw scores in the tolerance subtask (TOL), academic autonomy subtask (AA), and career planning subtask (CP). Using the standard score calculation, sophomores scored highest on the cultural participation subtask (CUP), tolerance subtask (TOL), and mature interpersonal relationships (MIR).
Table 7

SDTLA: Sophomores

<table>
<thead>
<tr>
<th>SDTLA Tasks and Subtasks</th>
<th>Sophomores $n = 48$</th>
<th>Standard Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish Purpose Task (PUR)</td>
<td>3.25 .50</td>
<td>51.90 7.45</td>
</tr>
<tr>
<td>Subtask: Educational Involvement (EI)</td>
<td>3.65 .56</td>
<td>55.25 6.34</td>
</tr>
<tr>
<td>Subtask: Career Planning (CP)</td>
<td>4.06 .68</td>
<td>46.05 8.98</td>
</tr>
<tr>
<td>Subtask: Lifestyle Planning (LP)</td>
<td>3.08 .75</td>
<td>46.97 10.17</td>
</tr>
<tr>
<td>Subtask: Cultural Participations (CUP)</td>
<td>2.51 .69</td>
<td>58.98 7.27</td>
</tr>
<tr>
<td>Developing Autonomy Task (AUT)</td>
<td>3.59 .40</td>
<td>53.03 7.75</td>
</tr>
<tr>
<td>Subtask: Emotional Autonomy (EA)</td>
<td>3.67 .46</td>
<td>50.17 9.35</td>
</tr>
<tr>
<td>Subtask: Interdependence (IND)</td>
<td>3.48 .59</td>
<td>55.22 8.39</td>
</tr>
<tr>
<td>Subtask: Academic Autonomy (AA)</td>
<td>3.81 .64</td>
<td>52.77 9.26</td>
</tr>
<tr>
<td>Subtask: Instrumental Autonomy (IA)</td>
<td>3.39 .61</td>
<td>50.28 9.15</td>
</tr>
<tr>
<td>Mature Interpersonal Relationships Task (MIR)</td>
<td>3.92 .36</td>
<td>55.39 6.93</td>
</tr>
<tr>
<td>Subtask: Peer Relationships (PR)</td>
<td>3.727 .53</td>
<td>49.56 9.16</td>
</tr>
<tr>
<td>Subtask: Tolerance (TOL)</td>
<td>4.07 .41</td>
<td>57.37 5.53</td>
</tr>
</tbody>
</table>

The SDTLA results for juniors are presented in Table 8. Juniors scored highest on the tolerance subtask (TOL), mature interpersonal relationships (MIR) and the career planning subtask (CP). The highest standard scores included the tolerance subtask (TOL), cultural participation subtask (CUP), and mature interpersonal relationships (MIR).
Table 8

SDTLA: Juniors

<table>
<thead>
<tr>
<th>SDTLA Tasks and Subtasks</th>
<th>Juniors $n = 49$</th>
<th>Standard Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish Purpose Task (PUR)</td>
<td>Mean 3.46 SD .54</td>
<td>Mean 51.02 SD 8.96</td>
</tr>
<tr>
<td>Subtask: Educational Involvement (EI)</td>
<td>Mean 3.80 SD .68</td>
<td>Mean 53.03 SD 8.80</td>
</tr>
<tr>
<td>Subtask: Career Planning (CP)</td>
<td>Mean 4.17 SD .57</td>
<td>Mean 48.25 SD 11.00</td>
</tr>
<tr>
<td>Subtask: Lifestyle Planning (LP)</td>
<td>Mean 3.18 SD .70</td>
<td>Mean 46.37 SD 9.88</td>
</tr>
<tr>
<td>Subtask: Cultural Participations (CUP)</td>
<td>Mean 2.88 SD .80</td>
<td>Mean 57.92 SD 5.41</td>
</tr>
<tr>
<td>Developing Autonomy Task (AUT)</td>
<td>Mean 3.64 SD .41</td>
<td>Mean 51.81 SD 10.05</td>
</tr>
<tr>
<td>Subtask: Emotional Autonomy (EA)</td>
<td>Mean 3.77 SD .43</td>
<td>Mean 50.49 SD 10.13</td>
</tr>
<tr>
<td>Subtask: Interdependence (IND)</td>
<td>Mean 3.50 SD .64</td>
<td>Mean 53.04 SD 10.40</td>
</tr>
<tr>
<td>Subtask: Academic Autonomy (AA)</td>
<td>Mean 3.82 SD .60</td>
<td>Mean 52.43 SD 9.54</td>
</tr>
<tr>
<td>Subtask: Instrumental Autonomy (IA)</td>
<td>Mean 3.39 SD .58</td>
<td>Mean 48.85 SD 10.01</td>
</tr>
<tr>
<td>Mature Interpersonal Relationships Task (MIR)</td>
<td>Mean 4.07 SD .35</td>
<td>Mean 56.50 SD 7.14</td>
</tr>
<tr>
<td>Subtask: Peer Relationships (PR)</td>
<td>Mean 3.79 SD .54</td>
<td>Mean 49.61 SD 9.76</td>
</tr>
<tr>
<td>Subtask: Tolerance (TOL)</td>
<td>Mean 4.28 SD .36</td>
<td>Mean 58.92 SD 5.41</td>
</tr>
</tbody>
</table>

Finally, the SDTLA results for seniors are presented in Table 9. Again, seniors scored highest in the career planning subtask (CP), mature interpersonal relationships (MIR), and the tolerance subtask (TOL). In reviewing the standard scores, seniors scored highest in cultural participation (CUP), mature interpersonal relationships (MIR), and tolerance subtask (TOL).
Table 9

*SDTLA : Seniors*

<table>
<thead>
<tr>
<th>SDTLA Tasks and Subtasks</th>
<th>Seniors Mean</th>
<th>SD</th>
<th>Standard Scores</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish Purpose Task (PUR)</td>
<td>3.64</td>
<td>.57</td>
<td>53.31</td>
<td>9.11</td>
<td></td>
</tr>
<tr>
<td>Subtask: Educational Involvement (EI)</td>
<td>3.98</td>
<td>.63</td>
<td>54.66</td>
<td>8.07</td>
<td></td>
</tr>
<tr>
<td>Subtask: Career Planning (CP)</td>
<td>4.21</td>
<td>.60</td>
<td>50.05</td>
<td>9.99</td>
<td></td>
</tr>
<tr>
<td>Subtask: Lifestyle Planning (LP)</td>
<td>3.33</td>
<td>.76</td>
<td>48.46</td>
<td>9.82</td>
<td></td>
</tr>
<tr>
<td>Subtask: Cultural Participations (CUP)</td>
<td>3.16</td>
<td>.77</td>
<td>58.16</td>
<td>6.25</td>
<td></td>
</tr>
<tr>
<td>Developing Autonomy Task (AUT)</td>
<td>3.75</td>
<td>.37</td>
<td>54.68</td>
<td>8.70</td>
<td></td>
</tr>
<tr>
<td>Subtask: Emotional Autonomy (EA)</td>
<td>3.89</td>
<td>.39</td>
<td>52.38</td>
<td>8.35</td>
<td></td>
</tr>
<tr>
<td>Subtask: Interdependence (IND)</td>
<td>3.50</td>
<td>.62</td>
<td>53.68</td>
<td>9.20</td>
<td></td>
</tr>
<tr>
<td>Subtask: Academic Autonomy (AA)</td>
<td>3.95</td>
<td>.66</td>
<td>54.36</td>
<td>10.44</td>
<td></td>
</tr>
<tr>
<td>Subtask: Instrumental Autonomy (IA)</td>
<td>3.64</td>
<td>.54</td>
<td>53.35</td>
<td>9.24</td>
<td></td>
</tr>
<tr>
<td>Mature Interpersonal Relationships Task (MIR)</td>
<td>4.05</td>
<td>.34</td>
<td>56.04</td>
<td>7.05</td>
<td></td>
</tr>
<tr>
<td>Subtask: Peer Relationships (PR)</td>
<td>3.87</td>
<td>.49</td>
<td>50.27</td>
<td>9.26</td>
<td></td>
</tr>
<tr>
<td>Subtask: Tolerance (TOL)</td>
<td>4.17</td>
<td>.38</td>
<td>57.91</td>
<td>5.73</td>
<td></td>
</tr>
</tbody>
</table>

The reliability table was included in the SDTLA data reported by the Appalachian State research office. Table 10 presents this information along with Cronbach’s alpha for each of the tasks and subtasks measure by the SDTLA instrument. George and Mallery (2003) report that an alpha higher than 0.70 is considered acceptable in research. The only tasks and subtasks that fall below a 0.70 are CUP (subtask: Cultural Participation); EA
(subtask: Emotional Autonomy); IA (Subtask Instrumental Autonomy); MIR (Mature Interpersonal Relationships); PR (Subtasks Peer Relationships); and TOL (Subtask: Tolerance).

Table 10

*Reliability for SDTLA Tasks and Subtasks*

<table>
<thead>
<tr>
<th>SDTLA Tasks and Subtasks</th>
<th>$\alpha$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish Purpose Task (PUR)</td>
<td>.90</td>
<td>51</td>
</tr>
<tr>
<td>Subtask: Educational Involvement (EI)</td>
<td>.87</td>
<td>28</td>
</tr>
<tr>
<td>Subtask: Career Planning (CP)</td>
<td>.86</td>
<td>14</td>
</tr>
<tr>
<td>Subtask: Lifestyle Planning (LP)</td>
<td>.81</td>
<td>13</td>
</tr>
<tr>
<td>Subtask: Cultural Participations (CUP)</td>
<td>.63</td>
<td>10</td>
</tr>
<tr>
<td>Developing Autonomy Task (AUT)</td>
<td>.86</td>
<td>51</td>
</tr>
<tr>
<td>Subtask: Emotional Autonomy (EA)</td>
<td>.69</td>
<td>17</td>
</tr>
<tr>
<td>Subtask: Interdependence (IND)</td>
<td>.77</td>
<td>14</td>
</tr>
<tr>
<td>Subtask: Academic Autonomy (AA)</td>
<td>.84</td>
<td>11</td>
</tr>
<tr>
<td>Subtask: Instrumental Autonomy (IA)</td>
<td>.60</td>
<td>9</td>
</tr>
<tr>
<td>Mature Interpersonal Relationships Task (MIR)</td>
<td>.65</td>
<td>24</td>
</tr>
<tr>
<td>Subtask: Peer Relationships (PR)</td>
<td>.55</td>
<td>10</td>
</tr>
<tr>
<td>Subtask: Tolerance (TOL)</td>
<td>.60</td>
<td>14</td>
</tr>
</tbody>
</table>
The Appalachian State research office also included the MGUDS-S instrument in the web survey but did not calculate any results. As the MGUDS-S results were in raw form, my first step with these results was to code the 15 MGUDS-S answers and calculate a final result according to the scoring instrument (Miville, 1992). Miville recommends that the MGUDS-S be calculated as a sum of the responses of the three subscales, Diversity of Contact, Relativistic Appreciation, and Comfort with Differences, with the last scale reverse coded for consistency. Although there is some evidence for the ability to measure subgroup tasks on the MGUDS –S, factor analysis conducted by Fuertes et al. (2000) indicates that due to high intercorrelation among the subscales, the instrument’s total score should be the focus of analysis. Table 11 presents the MGUDS-S scores for the sophomore cohort.

Table 11

MGUDS-S Results: Sophomores

<table>
<thead>
<tr>
<th>MGUDS-S</th>
<th>Sophomores $n = 48$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>Subscale: Diversity of Contact</td>
<td>3.8</td>
</tr>
<tr>
<td>Subscale: Relativistic Appreciation</td>
<td>2.6</td>
</tr>
<tr>
<td>Subscale: Comfort with Differences</td>
<td>3.8</td>
</tr>
<tr>
<td>MGUDS-S score</td>
<td>3.87</td>
</tr>
</tbody>
</table>
Table 12 presents the results for the MGUDS-S for juniors. The juniors may have a slightly higher mean than the sophomore cohort, but the overall MGUDS-S score is almost the same as the sophomore cohort.

Table 12

MGUDS-S Results: Juniors

<table>
<thead>
<tr>
<th>MGUDS-S</th>
<th>Juniors n = 49</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>Subscale: Diversity of Contact</td>
<td>4.2</td>
</tr>
<tr>
<td>Subscale: Relativistic Appreciation</td>
<td>3.8</td>
</tr>
<tr>
<td>Subscale: Comfort with Differences</td>
<td>3.6</td>
</tr>
<tr>
<td>MGUDS-S score</td>
<td>3.87</td>
</tr>
</tbody>
</table>

Table 13 includes the MGUDS-S results for the senior cohort. The scores are similar to both the junior and sophomore cohort, although the seniors do have the highest mean score for the MGUDS-S instrument.

Table 13

MGUDS-S Results: Seniors

<table>
<thead>
<tr>
<th>MGUDS-S</th>
<th>Seniors n = 56</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>Subscale: Diversity of Contact</td>
<td>4.0</td>
</tr>
<tr>
<td>Subscale: Relativistic Appreciation</td>
<td>3.6</td>
</tr>
<tr>
<td>Subscale: Comfort with Differences</td>
<td>3.8</td>
</tr>
<tr>
<td>MGUDS-S score</td>
<td>3.93</td>
</tr>
</tbody>
</table>
Table 14 presents the reliability analysis for the MGUDS-S instrument used in this study. As reported in the literature, the alpha is only above .70 (or acceptable level) for the MGUDS-S total score. This is the score that will be used in the data analysis.

Table 14

*MGUDS-S Reliability*

<table>
<thead>
<tr>
<th>MGUDS-S</th>
<th>$\alpha$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale: Diversity of Contact</td>
<td>.51</td>
<td>5</td>
</tr>
<tr>
<td>Scale: Relativistic Appreciation</td>
<td>.38</td>
<td>5</td>
</tr>
<tr>
<td>Scale: Comfort with Differences</td>
<td>.52</td>
<td>5</td>
</tr>
<tr>
<td>MGUDS-S total score</td>
<td>.79</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional Program Information

Once the MGUDS-S data were coded, I included additional data for each participant. Each participant was asked to include his or her student email address as part of the web survey. Because each student email is unique, I used this address to include additional information for each participant in this study. This information included study abroad program, highest language level studied prior to participating in study abroad, GPA at the time of the survey, and major. The name of the study abroad program also allowed me to pull out additional factors I examined as part of this study, including type of housing available at the program, language of instruction, and if the program included a community project (ICRP).
The following section focuses on the data gathered as part of the four factors examined for one of the research questions: language level of students prior to study abroad participation, language of courses on-site, the completion of an on-site internship or community project (ICRP), and the living situation (residence housing or home stay).

Language Level Pre-Study Abroad

Michigan College is on a quarter calendar system, with one quarter lasting 11 weeks. A full course load is three classes per quarter with three quarters per academic year. Students participating in semester plus programs at Michigan College must have a minimum of three quarters of language study in the particular language spoken at the study abroad site. In cases where students will be taking courses at the local university, students are required to have a proficiency level at least the equivalent of high intermediate, typically calculated at Michigan College by completing four or five quarters of language. All graduates of Michigan College must complete a graduation requirement of intermediate language proficiency to graduate. Students do this by completing either the intermediate level of language study or a proficiency test to demonstrate this level. Therefore, even if students are studying abroad in a country or program where the main language of instruction is English, it is highly likely they have already completed three quarters (or equivalent) of language study. Table 5 includes the language level of juniors or seniors prior to their study abroad experience. One interesting characteristic of the participant groups is that almost 50% of students in each cohort have completed intermediate to advanced levels of language study.
Table 15

*Language Level Prior to Study Abroad Departure*

<table>
<thead>
<tr>
<th></th>
<th>No Language (100 level courses)</th>
<th>Beg Level (200 level)</th>
<th>Intermediate (300 level – lit courses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophomore (N = 48)</td>
<td>4</td>
<td>19</td>
<td>3</td>
</tr>
<tr>
<td>Junior (N = 49)</td>
<td>0</td>
<td>23</td>
<td>3</td>
</tr>
<tr>
<td>Senior (N = 56)</td>
<td>3</td>
<td>19</td>
<td>7</td>
</tr>
</tbody>
</table>

*The Integrative Cultural Research Project*

The Integrative Cultural Research Project (ICRP) became a component of Michigan College’s own study abroad programs in the 1990s. The ICRP allows for students to volunteer with an organization in an area where they have interest. For example, a student who is interested in immigration issues in Europe may volunteer to work at a non-profit organization dedicated to helping immigrants during their study abroad in Madrid. Students must spend at least 45 documented hours in an organization. For most students, this is the opportunity during their study abroad program to work on local projects with local people using local resources. Sixteen out of the 41 study abroad programs offer ICRP opportunities for students. Table 16 presents the number of participants completing the survey who completed an ICRP as a component of their study abroad program. At least 60% of the sophomore, junior, and senior cohorts had either completed an ICRP (juniors and seniors) or had been admitted to a program that included the ICRP as part of its curriculum.
Table 16

*Integrative Cultural Research Project*

<table>
<thead>
<tr>
<th></th>
<th>ICRP Required Component of Program?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Sophomore ($N = 48$)</td>
<td>30 (63%)</td>
</tr>
<tr>
<td>Junior ($N = 49$)</td>
<td>32 (65%)</td>
</tr>
<tr>
<td>Senior ($N = 56$)</td>
<td>34 (60%)</td>
</tr>
</tbody>
</table>

*Housing*

Each study abroad program offered at Michigan College offers a specific type of housing. In other words, students know when they apply to a program what the housing situation will be onsite; there are no choices (such as picking either home stay or residence hall) in individual programs. The three major housing options include home stay, a residence hall with local students or a residence hall (or sometimes apartments) with other North American students. Because of the small sample size for the variable “homestay combined with residence hall,” this variable was collapsed into “residence hall with North American students.” This last variable referred to one specific program where the students lived with host families for the first 8 weeks, while taking intensive language, and then moved to residence housings with other North American students for the remaining 16 weeks of the program. Because the majority of the housing was indeed in a residence hall, I coded the students’ housing as “residence hall with North American students.” With the exception of the sophomore cohort, in which 58% of the students selected a program that offers the residence hall option, the division between students
who lived in homestays and students in residence halls was 50%. Table 17 includes information about how each cohort lived on their study abroad program. The highest percentage of students lived in a homestay.

Table 17

*Housing in Study Abroad Programs*

<table>
<thead>
<tr>
<th>Year</th>
<th>Homestay</th>
<th>Residence Hall with Local Students</th>
<th>Residence Hall with North American Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophomore</td>
<td>20 (42%)</td>
<td>13 (27%)</td>
<td>15 (31%)</td>
</tr>
<tr>
<td>Junior</td>
<td>29 (59%)</td>
<td>9 (18%)</td>
<td>11 (22%)</td>
</tr>
<tr>
<td>Senior</td>
<td>28 (50%)</td>
<td>12 (21%)</td>
<td>16 (29%)</td>
</tr>
</tbody>
</table>

*Language on the Program*

Programs at Michigan College fall into three general categories as far as local language and use of English. Approximately 14 of the 41 study abroad programs in this study offered English as the primary language of instruction. Of these 14 programs, 5 are located in countries where English is recognized as the primary language or secondary language. The majority of students in this study participated either in programs in which the courses were taught in the local language or in programs where language instruction occurred alongside content courses in English. Table 18 presents more detailed information.
Table 18

**Language on Site**

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Local Language</th>
<th>English Content Courses with Language Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophomore</td>
<td>13 (27%)</td>
<td>20 (42%)</td>
<td>15 (13%)</td>
</tr>
<tr>
<td>Junior</td>
<td>12 (25%)</td>
<td>26 (53%)</td>
<td>11 (22%)</td>
</tr>
<tr>
<td>Senior</td>
<td>10 (17%)</td>
<td>26 (46%)</td>
<td>20 (36%)</td>
</tr>
</tbody>
</table>

Summary

The participants in the survey include sophomores, juniors and seniors who are academically successful, based on a comparison of GPA with their cohorts who studied abroad or students who did not study abroad. Approximately 50% of the survey participants selected or participated in a study abroad program that offered a home stay; the other half lived in a residence hall during their time overseas. The study participants are overwhelmingly female and represent an even distribution of majors of students who participate in study abroad at Michigan College. The majority of the participants in each cohort completed intermediate to advanced language course prior to study abroad and participated in or selected programs that include the Integrative Cultural Research Project (ICRP) as a program component.

All three cohorts scored highest on the Student Developmental Task and Lifestyle Assessment (SDTLA) in the subtasks “Cultural Participation” (CUP) and “Tolerance” (TOL). CUP indicates how often students report participating in cultural events and activities, such as the ballet or symphony, while TOL indicates “respect for and
acceptance of different backgrounds, beliefs and cultures” (Winston, Miller, & Cooper, 1999, p. 13). They also scored high on “Mature Interpersonal Relationships” (MIR) task, defined as having positive, open relationships with others, regardless of background or perceived cultural differences. The senior cohort achieved the highest mean score on the Miville-Guzman Diversity Scale (MGUDS-S).

Research Questions

After calculating the descriptive statistics of the research participants, I analyzed the data to answer four research questions.

1. To what extent does a cohort of students who study abroad demonstrate a higher level in personal development as measured by the Student Developmental Task and Lifestyle Assessment (SDTLA) than (a) a cohort of students who have not yet studied abroad, and (b) a national sample of university students who have taken the SDTLA?

2. To what extent does a cohort of students who study abroad demonstrate a higher level in intercultural effectiveness as measured by the Miville-Guzman Universality Diversity Scale–Short (MGUDS-S) than (a) a cohort of students who have not yet studied abroad, and (b) a national sample of university students who have taken the MGUDS-S?

3. To what degree do elements of a study abroad program impact personal growth and intercultural effectiveness? The specific program characteristics examined are: language level of participants, required non-English language use (subjects taught in English or local language), on-site student projects, and
type of housing (homestay, residence housing with host nationals, residence housing with North American students).

4. To what extent is personal growth and intercultural effectiveness sustained over time?

*Research Question 1*

In order to answer this question, I conducted independent samples *t* tests to determine if there was a statistically meaningful difference between the results of the SDTLA scores of students who had studied abroad (junior cohort) and students who had not yet gone abroad (sophomore cohort). Table 19 shows the results of that analysis. For the three main tasks of the SDTLA (Establishing Purpose, Developing Autonomy, and Mature Interpersonal Relationships), the differences between the means of the sophomores at Michigan College who had not studied abroad and the juniors who had studied abroad were not significant. Likewise, there was no difference in the means between the two cohorts in the six subtasks.

The second half of the research question compared the results from the three Michigan College cohorts to the national sample of college students who have taken the Student Developmental Task and Lifestyle Assessment (SDTLA). In other words, how do the results from these particular students compare to students from around the country? SDTLA researchers created the national sample in May 1999 (Winston et al., 1999) including 1,458 students from 31 institutions in the United States. Approximately 50% of the sample attended 20 private liberal arts colleges included in the study of 31 institutions.
Table 19

*t Test: Sophomores and Juniors SDTLA*

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Sophomores</th>
<th></th>
<th>Juniors</th>
<th></th>
<th>Paired Samples <em>t</em> Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>M</em></td>
<td><em>SD</em></td>
<td><em>M</em></td>
<td><em>SD</em></td>
<td><em>df</em></td>
</tr>
<tr>
<td>Establish Purpose Task (PUR)</td>
<td>51.91</td>
<td>7.45</td>
<td>51.10</td>
<td>8.96</td>
<td>95</td>
</tr>
<tr>
<td>Subtask: Educational Involvement (EI)</td>
<td>55.25</td>
<td>6.34</td>
<td>53.03</td>
<td>8.80</td>
<td>87.27**</td>
</tr>
<tr>
<td>Subtask: Career Planning (CP)</td>
<td>46.05</td>
<td>8.98</td>
<td>48.25</td>
<td>11.00</td>
<td>95</td>
</tr>
<tr>
<td>Subtask: Lifestyle Planning (LP)</td>
<td>46.97</td>
<td>10.17</td>
<td>46.37</td>
<td>9.89</td>
<td>95</td>
</tr>
<tr>
<td>Subtask: Cultural Participations (CUP)</td>
<td>58.98</td>
<td>7.27</td>
<td>57.37</td>
<td>6.21</td>
<td>95</td>
</tr>
<tr>
<td>Developing Autonomy Task (AUT)</td>
<td>53.03</td>
<td>7.75</td>
<td>51.81</td>
<td>10.05</td>
<td>95</td>
</tr>
<tr>
<td>Subtask: Emotional Autonomy (EA)</td>
<td>50.18</td>
<td>9.35</td>
<td>50.49</td>
<td>10.13</td>
<td>95</td>
</tr>
<tr>
<td>Subtask: Interdependence (IND)</td>
<td>55.22</td>
<td>8.39</td>
<td>53.04</td>
<td>10.40</td>
<td>95</td>
</tr>
<tr>
<td>Subtask: Academic Autonomy (AA)</td>
<td>52.77</td>
<td>9.26</td>
<td>52.43</td>
<td>9.54</td>
<td>95</td>
</tr>
<tr>
<td>Subtask: Instrumental Autonomy (IA)</td>
<td>50.28</td>
<td>9.15</td>
<td>48.84</td>
<td>10.01</td>
<td>95</td>
</tr>
<tr>
<td>Mature Interpersonal Relationships Task (MIR)</td>
<td>55.39</td>
<td>6.93</td>
<td>56.50</td>
<td>7.14</td>
<td>95</td>
</tr>
<tr>
<td>Subtask: Peer Relationships (PR)</td>
<td>49.56</td>
<td>9.16</td>
<td>49.61</td>
<td>9.76</td>
<td>95</td>
</tr>
<tr>
<td>Subtask: Tolerance (TOL)</td>
<td>57.37</td>
<td>5.53</td>
<td>58.92</td>
<td>5.41</td>
<td>95</td>
</tr>
</tbody>
</table>

** Equal variances not assumed.
Winston et al. (1999) provide demographic information including the number of men and women participating in each class. The national sample includes 60% female and 40% male, with 73% living in a residence hall on campus. Seventy-five percent of the participants self-reported as White/European American and 15% self-reported as African American. I used the means and standard deviations provided by Winston et al. to conduct a two sample t test. In this case, the two sample t test was the same outcome as the single sample test with the expected mean. Table 20 presents the comparison between Michigan College sophomore cohort and the national sample.

The sophomores at Michigan College appear to have a higher mean than the national sample on all tasks and subtasks except the Cultural Participation subtask (CUP). The CUP subtask includes frequency of attending cultural events, such as the ballet or symphony. As 60% of Michigan College students come from Michigan, and many from rural areas, these students may not be accustomed to attending these events as individual young adults. However, the Michigan College sophomore cohort scored higher on all three of the SDTLA main tasks: Establishing Purpose, Developing Autonomy, and Mature Interpersonal Relationships. Table 21 includes the means for the Michigan College juniors compared to the national sample.

The juniors at Michigan College scored higher than the national sample for juniors in two main tasks: Developing Autonomy (AUT) and Mature Interpersonal Relationships (MIR). They also scored higher on the subtasks: Career Planning, Academic Autonomy, and Tolerance. Again, the cohort scored lower in the Cultural Participation Subtask (CUP), as well as the Lifestyle Planning Subtask (LP). For seniors,
Table 20

**Comparison of Michigan College Sophomores to National SDTLA Scores**

<table>
<thead>
<tr>
<th></th>
<th>MC Sophomores $N = 48$</th>
<th>National Sample $N = 375$</th>
<th>Paired Samples $t$ Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
</tr>
<tr>
<td>Establish Purpose Task (PUR)</td>
<td>3.26</td>
<td>.49</td>
<td>3.08</td>
</tr>
<tr>
<td>Subtask: Educational Involvement (EI)</td>
<td>3.65</td>
<td>.56</td>
<td>3.11</td>
</tr>
<tr>
<td>Subtask: Career Planning (CP)</td>
<td>4.06</td>
<td>.68</td>
<td>2.78</td>
</tr>
<tr>
<td>Subtask: Lifestyle Planning (LP)</td>
<td>3.08</td>
<td>.75</td>
<td>3.22</td>
</tr>
<tr>
<td>Subtask: Cultural Participations (CUP)</td>
<td>2.51</td>
<td>.70</td>
<td>3.20</td>
</tr>
<tr>
<td>Developing Autonomy Task (AUT)</td>
<td>3.52</td>
<td>.40</td>
<td>3.37</td>
</tr>
<tr>
<td>Subtask: Emotional Autonomy (EA)</td>
<td>3.67</td>
<td>.46</td>
<td>3.60</td>
</tr>
<tr>
<td>Subtask: Interdependence (IND)</td>
<td>3.48</td>
<td>.59</td>
<td>3.04</td>
</tr>
<tr>
<td>Subtask: Academic Autonomy (AA)</td>
<td>3.81</td>
<td>.64</td>
<td>3.53</td>
</tr>
<tr>
<td>Subtask: Instrumental Autonomy (IA)</td>
<td>3.39</td>
<td>.611</td>
<td>3.29</td>
</tr>
<tr>
<td>Mature Interpersonal Relationships Task (MIR)</td>
<td>3.92</td>
<td>.364</td>
<td>3.57</td>
</tr>
<tr>
<td>Subtask: Peer Relationships (PR)</td>
<td>3.73</td>
<td>.53</td>
<td>3.71</td>
</tr>
<tr>
<td>Subtask: Tolerance (TOL)</td>
<td>4.07</td>
<td>.41</td>
<td>3.34</td>
</tr>
</tbody>
</table>
Table 21

Comparison of Michigan College Juniors to National SDTLA Sample

<table>
<thead>
<tr>
<th>Task</th>
<th>MC Juniors $N = 49$</th>
<th>National Sample $N = 325$</th>
<th>Paired Samples $t$ Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish Purpose Task (PUR)</td>
<td>3.46 .54</td>
<td>3.32 .63</td>
<td>69.5 1.65 .10</td>
</tr>
<tr>
<td>Subtask: Educational Involvement (EI)</td>
<td>3.46 .81</td>
<td>3.80 .68</td>
<td>70.26 3.22 .00</td>
</tr>
<tr>
<td>Subtask: Career Planning (CP)</td>
<td>4.17 .57</td>
<td>2.96 .74</td>
<td>75 13.25 .00</td>
</tr>
<tr>
<td>Subtask: Lifestyle Planning (LP)</td>
<td>3.18 .70</td>
<td>3.39 .75</td>
<td>65 −1.92 .05</td>
</tr>
<tr>
<td>Subtask: Cultural Participations (CUP)</td>
<td>2.88 .80</td>
<td>3.44 .92</td>
<td>68.8 −4.46 .04</td>
</tr>
<tr>
<td>Developing Autonomy Task (AUT)</td>
<td>3.64 .41</td>
<td>3.50 .45</td>
<td>66 2.23 .02</td>
</tr>
<tr>
<td>Subtask: Emotional Autonomy (EA)</td>
<td>3.77 .43</td>
<td>3.69 .48</td>
<td>67.3 1.17 .25</td>
</tr>
<tr>
<td>Subtask: Interdependence (IND)</td>
<td>3.5 .64</td>
<td>3.26 .63</td>
<td>62.6 2.41 .02</td>
</tr>
<tr>
<td>Subtask: Academic Autonomy (AA)</td>
<td>3.82 .60</td>
<td>3.59 .66</td>
<td>66 2.48 .02</td>
</tr>
<tr>
<td>Subtask: Instrumental Autonomy (IA)</td>
<td>3.39 .58</td>
<td>3.41 .61</td>
<td>64 −0.27 .06</td>
</tr>
<tr>
<td>Mature Interpersonal Relationships Task (MIR)</td>
<td>4.07 .35</td>
<td>3.70 .50</td>
<td>80 6.41 0.00</td>
</tr>
<tr>
<td>Subtask: Peer Relationships (PR)</td>
<td>3.79 .54</td>
<td>3.77 .57</td>
<td>65 0.16 0.88</td>
</tr>
<tr>
<td>Subtask: Tolerance (TOL)</td>
<td>4.28 .36</td>
<td>3.65 .67</td>
<td>106 10 0.00</td>
</tr>
</tbody>
</table>
again most Michigan College seniors scored higher, on average, than the national sample on the two main tasks AUT and MIR.

As Table 22 indicates, one notable difference for the Michigan College seniors is that they also scored higher than the national sample on the Instrumental Autonomy (IA) subtask. Winston et al. (1999) describe the IA subtask as indicating that students practice effective time management, appropriate goal setting and strategies for achievement, and an ability to manage and solve challenges as they arise. One reason that seniors may have scored higher than the national sample on this subtask is that their study abroad experience may have provided the context needed to develop this skill. Additionally, these students are in their last weeks of college and have completed internships, student thesis projects, and additional obligations as part of being a student. This is speculation and there is no information in the national sample indicating if students participated in either study abroad or internships. However, this is perhaps a welcomed indicator that, compared to the national sample, the combination of activities and academic programs at Michigan College contributes to the development of successful young adults.

All three of the Michigan College cohorts scored higher than the national SDTLA sample in the main tasks Developing Autonomy (AUT) and Mature Interpersonal Relationships (MIR). The cohorts also scored higher than the national sample on five of the subtasks, Educational Involvement (EI), Career Planning (CP), Interdependence (IND), Academic Autonomy (AA), and Tolerance (TOL). Again, the opportunities and characteristics of a Michigan College education perhaps contribute to these scores. Michigan College emphasizes internships and externships for students and includes programming directed to guide students through their own personal and professional
Table 22

Comparison of Michigan College Seniors to National SDTLA

<table>
<thead>
<tr>
<th></th>
<th>MC Seniors $N = 55$</th>
<th>National Sample $N = 255$</th>
<th>Paired Samples $t$ Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
</tr>
<tr>
<td>Establish Purpose Task (PUR)</td>
<td>3.64</td>
<td>.57</td>
<td>3.69</td>
</tr>
<tr>
<td>Subtask: Educational Involvement (EI)</td>
<td>3.98</td>
<td>.63</td>
<td>3.62</td>
</tr>
<tr>
<td>Subtask: Career Planning (CP)</td>
<td>4.21</td>
<td>.60</td>
<td>3.17</td>
</tr>
<tr>
<td>Subtask: Lifestyle Planning (LP)</td>
<td>3.33</td>
<td>.76</td>
<td>3.44</td>
</tr>
<tr>
<td>Subtask: Cultural Participations (CUP)</td>
<td>3.16</td>
<td>.77</td>
<td>3.41</td>
</tr>
<tr>
<td>Developing Autonomy Task (AUT)</td>
<td>3.75</td>
<td>.37</td>
<td>3.54</td>
</tr>
<tr>
<td>Subtask: Emotional Autonomy (EA)</td>
<td>3.89</td>
<td>.39</td>
<td>3.78</td>
</tr>
<tr>
<td>Subtask: Interdependence (IND)</td>
<td>3.50</td>
<td>.62</td>
<td>3.32</td>
</tr>
<tr>
<td>Subtask: Academic Autonomy (AA)</td>
<td>3.95</td>
<td>.66</td>
<td>3.53</td>
</tr>
<tr>
<td>Subtask: Instrumental Autonomy (IA)</td>
<td>3.64</td>
<td>.54</td>
<td>3.45</td>
</tr>
<tr>
<td>Mature Interpersonal Relationships Task (MIR)</td>
<td>4.05</td>
<td>.34</td>
<td>3.73</td>
</tr>
<tr>
<td>Subtask: Peer Relationships (PR)</td>
<td>3.87</td>
<td>.49</td>
<td>3.84</td>
</tr>
<tr>
<td>Subtask: Tolerance (TOL)</td>
<td>4.17</td>
<td>.38</td>
<td>3.61</td>
</tr>
</tbody>
</table>

development. The 10-week quarter calendar encourages students to develop a tight academic focus and to actively participate in their educational journey, both on and off campus.

This comparison does lead to an interesting question for this study. In essence, if the Michigan College cohorts already score higher than the national sample on several tasks and subtasks, will a “Lake Wobegon” effect, defined as a group’s ability to claim to being above average (Wilde, 2002), impact the ability to measure further growth and development as a result of study abroad, or particular components of study abroad?

Research Question 2

For the second research question, I studied a cohort of sophomore students who had not studied abroad compared with a group a juniors who had recently returned from study abroad. However, this time the focus was on intercultural effectiveness as measured by the Miville-Guzman Universality Diversity Scale–Short (MGUDS-S). Table 23 includes the results of the independent samples t tests results. Results demonstrate that there was no significant difference between the sophomore and junior cohort at Michigan College.

Table 23

<table>
<thead>
<tr>
<th></th>
<th>Sophomores</th>
<th></th>
<th>Juniors</th>
<th></th>
<th>Paired Samples t Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>df*</td>
</tr>
<tr>
<td>MGUDS-S</td>
<td>14.44</td>
<td>1.628</td>
<td>14.55</td>
<td>1.139</td>
<td>83.96</td>
</tr>
</tbody>
</table>

*Equal variances not assumed.
As a next step, I compared the MGUDS-S results for each of the subscales and the full scale from the Michigan College cohorts with a national sample of students. Unlike the SDTLA, which includes a national sample for each cohort year, the only obtainable national samples for MGUDS-S are from first-year students. A few years ago, Blaich and Wise (2009) began a longitudinal study focusing on the outcomes of a liberal arts education on intercultural competence. Part of their inquiry included administering the MGUDS-S survey to a national sample of students. As their study is longitudinal, the only results available at this time were from first-year students. Table 24 includes the results.

Table 24

*Openness Towards Diversity: Comparison with National Scores*

<table>
<thead>
<tr>
<th>Milville-Guzman Universality-Diversity Scale</th>
<th>MC Cohort $N = 153$</th>
<th>National Sample $N = 3,081$</th>
<th>Paired Samples $t$ Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
</tr>
<tr>
<td>Full scale score</td>
<td>4.85</td>
<td>.44</td>
<td>4.59</td>
</tr>
<tr>
<td>Diversity of Contact subscale score</td>
<td>5.06</td>
<td>.48</td>
<td>4.19</td>
</tr>
<tr>
<td>Relativistic Appreciation subscale score</td>
<td>4.53</td>
<td>.53</td>
<td>4.47</td>
</tr>
<tr>
<td>Comfort with Differences subscale score</td>
<td>4.94</td>
<td>.57</td>
<td>4.82</td>
</tr>
</tbody>
</table>

The Michigan College cohort scored higher than the national sample on the MGUDS-S. This could be a result of developmental growth in the area of intercultural effectiveness as the Michigan College sample includes sophomores, juniors, and seniors and the national sample includes first-year students. However, it is possible to begin to form an impression of the level of intercultural effectiveness of the Michigan College cohort based on the higher scores on the subtask Tolerance (TOL) on the SDTLA and the MGUDS-S. The TOL subtask indicates, “respect for and acceptance of those of different backgrounds” (Winston, Miller, & Cooper, 1999, p. 13). The MGUDS-S measures Universal-Diverse Orientation (UDO), a construct that “describes an attitude of awareness and acceptance of both the similarities and differences among people” (Miville et al., 1999, p. 291).

Even though there is no specific information about the national sample, the unique experiential education environment at Michigan College, including the fact that 85% of graduates participate in study abroad, almost 50% of students participate in service-learning projects, and 71% participate in internships and externships, could be a contributing factor to the high scores achieved by students who on the SDTLA and MGUDS-S. This frequent experiential activity off-campus could foster an environment where students interact with others of various backgrounds. I also may not have been able to detect differences between the cohorts because the Michigan College cohort as a whole scored higher on the MGUDS-S than the national sample.
Research Question 3

For this question, I examined to what degree elements of a study abroad program impact personal growth and intercultural effectiveness. The specific program characteristics examined were: language level of participants, required non-English language use (subjects taught in English or local language), on-site student projects, and type of housing (homestay, residence hall with host nationals, residence hall with North American students). As you may recall from previous sections, most of my independent factors included three separate levels. In order to use regression modeling, I first needed to “dummy code” my variables. Table 25 provides the details on how the factors were collapsed into binary variables.

Table 25

Independent Factors

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest level language prior to SA</td>
<td>No classes to beginner level</td>
<td>Intermediate to advanced level</td>
</tr>
<tr>
<td>Language of courses on-site</td>
<td>Classes in English OR English content with language courses</td>
<td>Classes in local language</td>
</tr>
<tr>
<td>ICRP (internship)</td>
<td>No internship is part of the program</td>
<td>Internship is part of program</td>
</tr>
<tr>
<td>Housing situation</td>
<td>Residence housing with host nationals or North American students</td>
<td>Home stay</td>
</tr>
</tbody>
</table>
After I created the dummy codes, I examined the extent to which these factors influenced the dependent variable. In this question, the dependent variable was the score for each task on the SDTLA and the MGUDS-S total score. As a reminder to the reader, Table 26 includes a list of dependent variables.

Table 26

List of Dependent Variables

<table>
<thead>
<tr>
<th>DV</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDTLA: Establish Purpose task (PUR)</td>
<td>Well-defined education goals and plans; established personal direction; exhibit wide range of cultural interests</td>
</tr>
<tr>
<td>SDTLA: Developing Autonomy task (AUT)</td>
<td>Able to meet own needs without continuous reassurance; ability to structure time to be successful; acts as responsible and reciprocal member of community</td>
</tr>
<tr>
<td>SDTLA: Mature Interpersonal Relationships task (MIR)</td>
<td>Relationships affect a balance between dependence and independence; show respect for others of different backgrounds</td>
</tr>
<tr>
<td>MGUDS-S score</td>
<td>Reflects an attitude of awareness and acceptance of both the similarities and differences among people</td>
</tr>
</tbody>
</table>

In order to begin exploring the relationships among the variables, my first step included conducting a series of correlation analyses. Since I was interested in the relationship between study abroad program components and the dependent variables listed in Table 26, I focused on examining the cohorts who had actually participated in the study abroad program, juniors and seniors. I combined both cohorts for this part of the
study \((N = 105)\). I have organized the results according to the dependent variable examined.

*Dependent Variable: Establish Purpose Task*

Table 27 presents the first analysis for the Establishing Purpose task (PUR) of the SDTLA instrument. I immediately noticed the strong relationship between language studied abroad and the language spoken on-site in the study abroad program. Additionally, the relationship between housing and the language spoken on-site is high. Cohen and Holliday (1982) suggest that modest correlations are 0.40 to 0.69 and high correlations are 0.70 to .89.

Table 27

*PUR Task Correlation Table*

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PUR_STD</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Lang-pre study abroad</td>
<td>.05</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Lang on-site</td>
<td>.04</td>
<td>.61*</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. ICRP</td>
<td>–.13</td>
<td>.12</td>
<td>.33*</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>5. Housing</td>
<td>–.01</td>
<td>.42*</td>
<td>.72*</td>
<td>.32*</td>
<td>–</td>
</tr>
</tbody>
</table>

*Note. N = 105. *p < .05.*

Given the relative high correlation between language on site and language level prior to study abroad and completion of an ICRP project and language on site, I wanted to examine these variables further. I conducted a chi-square analysis. Chi-square analysis provides additional information on the assumed independence of the variables (Vogt,
2007). For the housing and language on site, the chi-square statistic is $X^2 (1, 153) = 81$, $p = .05$. For the variables highest level pre-study abroad and language on site, it is $X^2 (1, 153) = 57$, $p = .05$. For the variables ICRP and language on site, $X^2 (1, 153) = 28$, $p = .05$, again, the chi-squared statistic indicates these two variables are too similar to be statistically independent. As this chi square is much larger than the chi-squared critical value of 3.8, housing and language on-site are not likely to be statistically independent. Again, this indicated these two variables may not be considered independent from each other. Even though this analysis indicated that my variables may not be statistically independent, I conducted a single regression analysis for each dependent variable to explore the relationships further. Table 28 includes the results.

Table 28

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>$T$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lang-pre</td>
<td>-.05</td>
<td>1.39</td>
<td>-.00</td>
<td>-.04</td>
<td>.97</td>
</tr>
<tr>
<td>Lang-site</td>
<td>.88</td>
<td>1.39</td>
<td>.05</td>
<td>.63</td>
<td>.53</td>
</tr>
<tr>
<td>ICRP</td>
<td>-1.85</td>
<td>1.43</td>
<td>-.14</td>
<td>-.11</td>
<td>.20</td>
</tr>
<tr>
<td>Housing</td>
<td>3.76</td>
<td>1.39</td>
<td>.02</td>
<td>.27</td>
<td>.79</td>
</tr>
</tbody>
</table>

*Note.* Dependent variable: PUR_STD.

Table 29 includes the results from my second level of analysis, using all four independent variables. Given that the chi-square analysis indicates that my variables are dependent on each other, it is perhaps no surprise that I was unable to produce statistically significant results.
Table 29

*Summary of Model 1 Multiple Regression Analysis for PUR*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(constant)</td>
<td>53.35</td>
<td>1.75</td>
<td></td>
<td>30.56</td>
<td>.00</td>
</tr>
<tr>
<td>Lang-pre</td>
<td>.33</td>
<td>2.27</td>
<td>.02</td>
<td>.15</td>
<td>.88</td>
</tr>
<tr>
<td>Lang-site</td>
<td>2.02</td>
<td>2.96</td>
<td>.11</td>
<td>.68</td>
<td>.50</td>
</tr>
<tr>
<td>ICRP</td>
<td>−2.83</td>
<td>1.98</td>
<td>−.15</td>
<td>−1.43</td>
<td>.16</td>
</tr>
<tr>
<td>Housing</td>
<td>−.87</td>
<td>2.59</td>
<td>−.05</td>
<td>−.34</td>
<td>.74</td>
</tr>
</tbody>
</table>

*Note.* Dependent variable: PUR; $R^2 = .025$.

In order to explore these relationships further, I conducted a second level regression analysis including only three of the dependent variables: Language level prior to study abroad participation, the completion of the ICRP and the type of housing available on the program. Table 30 includes the results of the analysis.

Table 30

*Summary of Level Two Multiple Regression Analysis for PUR*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(constant)</td>
<td>53.20</td>
<td>1.73</td>
<td></td>
<td>30.80</td>
<td>.00</td>
</tr>
<tr>
<td>Lang-pre</td>
<td>−3.34</td>
<td>1.98</td>
<td>−.06</td>
<td>.55</td>
<td>.58</td>
</tr>
<tr>
<td>ICRP</td>
<td>−2.59</td>
<td>1.94</td>
<td>−.14</td>
<td>−1.33</td>
<td>.19</td>
</tr>
<tr>
<td>Housing</td>
<td>1.09</td>
<td>2.07</td>
<td>.01</td>
<td>.09</td>
<td>.93</td>
</tr>
</tbody>
</table>

*Note.* Dependent variable: PUR; $R^2 = .021$. 
Dependent Variable: Developing Autonomy Task

Table 31 presents the first analysis for the Developing Autonomy task (AUT) of the SDTLA instrument. Again, I focused on the strong relationship between language studied abroad and the language spoken on-site in the study abroad program. Additionally, the relationship between housing and the language spoken on-site is considered high (Cohen & Holliday, 1982).

Table 31

Correlation Table: AUT Task

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AUT_STD</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>2. Lang-pre</td>
<td>–.05</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>3. Lang on-site</td>
<td>–.09</td>
<td>.61*</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>4. ICRP</td>
<td>–.12</td>
<td>.12</td>
<td>.33*</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>5. Housing</td>
<td>–.09</td>
<td>.42*</td>
<td>.72*</td>
<td>.32*</td>
<td>–</td>
</tr>
</tbody>
</table>

Note. \(N = 105\). \(*p < .05\).

As the independent values are the same for this analysis, the results of the chi-square indicate the variables may not be truly independent. In order to make sure I had not missed any statistically significant relationships, I conducted a single regression analysis for each independent variable and for the dependent variable AUT. This analysis did not reveal any statistically significant relationships as indicated in Table 32.
Table 32

Summary of Single Item Regression Analysis for AUT

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>( \beta )</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lang-pre</td>
<td>-1.37</td>
<td>1.44</td>
<td>-.08</td>
<td>-.95</td>
<td>.35</td>
</tr>
<tr>
<td>Lang-site</td>
<td>-1.06</td>
<td>1.45</td>
<td>-.06</td>
<td>-.73</td>
<td>.47</td>
</tr>
<tr>
<td>ICRP</td>
<td>-1.98</td>
<td>1.49</td>
<td>-.11</td>
<td>-1.33</td>
<td>.19</td>
</tr>
<tr>
<td>Housing</td>
<td>-.95</td>
<td>1.44</td>
<td>-.05</td>
<td>-.66</td>
<td>.51</td>
</tr>
</tbody>
</table>

*Note.* Dependent variable: AUT_STD.

Next, I conducted the first level of regression analysis. Table 33 includes the results using all four independent variables. Given the chi-square analysis and the results of the single regression tests, this analysis confirms how close the relationship is among the variables.

Table 33

Summary of Multiple Regression Analysis: AUT

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>( \beta )</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(constant)</td>
<td>52.21</td>
<td>1.82</td>
<td></td>
<td>30.31</td>
<td>.00</td>
</tr>
<tr>
<td>Lang-pre</td>
<td>-.06</td>
<td>2.37</td>
<td>-.00</td>
<td>-.02</td>
<td>.98</td>
</tr>
<tr>
<td>Lang-site</td>
<td>-.47</td>
<td>3.09</td>
<td>-.03</td>
<td>-.15</td>
<td>.88</td>
</tr>
<tr>
<td>ICRP</td>
<td>-1.88</td>
<td>2.07</td>
<td>-.10</td>
<td>-.91</td>
<td>.36</td>
</tr>
<tr>
<td>Housing</td>
<td>-.77</td>
<td>2.70</td>
<td>-.04</td>
<td>-.28</td>
<td>.78</td>
</tr>
</tbody>
</table>

*Note.* Dependent variable: AUT_STD; \( R^2 = .018 \).
The next step was a regression analysis including only three of the dependent variables: Language level prior to study abroad participation, the completion of the ICRP, and the type of housing available on the program. As Table 34 presents, even with the remaining three variables, the results indicate the relationship among them is too close to determine a relationship with developing autonomy (AUT) dependent variable.

Table 34

*Summary of Level Two Multiple Regression Analysis: AUT*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(constant)</td>
<td>55.24</td>
<td>1.80</td>
<td></td>
<td>30.73</td>
<td>.00</td>
</tr>
<tr>
<td>Lang-pre</td>
<td>−.23</td>
<td>2.06</td>
<td>−.01</td>
<td>−.11</td>
<td>.91</td>
</tr>
<tr>
<td>ICRP</td>
<td>−1.94</td>
<td>2.02</td>
<td>−.10</td>
<td>−.96</td>
<td>.34</td>
</tr>
<tr>
<td>Housing</td>
<td>−1.01</td>
<td>2.15</td>
<td>−.05</td>
<td>−.47</td>
<td>.64</td>
</tr>
</tbody>
</table>

*Note.* Dependent variable: AUT_STD; $R^2 = .017$.

*Dependent Variable: Managing Interpersonal Relationships*

Table 35 presents the first analysis for the Managing Interpersonal Relationships task (MIR) of the SDTLA instrument. Again, there is evidence of a strong relationship between language level prior to participation and the language spoken on-site in the study abroad program. Additionally, the relationship between housing and the language spoken on-site is high. Cohen and Holliday (1982) suggest that modest correlations are 0.40 to 0.69 and high correlations are 0.70 to .89.
Table 35

*Correlation Table: MIR Task*

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MIR_STD</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Lang-pre</td>
<td>.04</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Lang on-site</td>
<td>–.03</td>
<td>.61*</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. ICRP</td>
<td>–.07</td>
<td>.12</td>
<td>.33*</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>5. Housing</td>
<td>–.13</td>
<td>.42*</td>
<td>.72*</td>
<td>.32*</td>
<td>–</td>
</tr>
</tbody>
</table>

*Note. N = 105. *p < .05.*

Given the indications that the independent variables may not be independent of each other, I conducted a single regression analysis for each independent variable and for the dependent variable MIR. This analysis did not reveal any statistically significant relationships for three of the four independent variables as indicated in Table 36. However, housing approaches significance in predicting scores on the MIR subtask, $\beta = -0.13, t(-1.64) = -1.84, p < .10$. This test is adequate to detect small sized differences (power = .8915, effect size = .08).

As a next step, I conducted the first level of regression analysis. Table 37 includes the results using all four independent variables. Given the results of the chi-square analysis, the first level regression confirms the likely interdependence of the variables. Housing approaches significance in predicting scores on the MIR subtask, $\beta = -0.211$, $t(-1.48) = -2.97, p < .15$. However, the post hoc power analysis indicated this test was not adequate to detect small sized differences (power = .6590, effect size = .08).
Table 36

*Summary of Single Item Regression Analysis for MIR*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lang-pre</td>
<td>-.22</td>
<td>1.14</td>
<td>.02</td>
<td>.20</td>
<td>.84</td>
</tr>
<tr>
<td>Lang-site</td>
<td>.01</td>
<td>1.14</td>
<td>.00</td>
<td>.01</td>
<td>.99</td>
</tr>
<tr>
<td>ICRP</td>
<td>-.34</td>
<td>1.18</td>
<td>-.02</td>
<td>-.29</td>
<td>.77</td>
</tr>
<tr>
<td>Housing</td>
<td>-1.84</td>
<td>1.13</td>
<td>-.13</td>
<td>-1.64</td>
<td>.10</td>
</tr>
</tbody>
</table>

*Note.* Dependent variable: MIR.

Table 37

*Summary of Regression Analysis: MIR*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(constant)</td>
<td>57.05</td>
<td>1.36</td>
<td></td>
<td>42.09</td>
<td>.00</td>
</tr>
<tr>
<td>Lang-pre</td>
<td>1.10</td>
<td>1.76</td>
<td>.08</td>
<td>.63</td>
<td>.53</td>
</tr>
<tr>
<td>Lang-site</td>
<td>1.12</td>
<td>2.30</td>
<td>.09</td>
<td>.52</td>
<td>.60</td>
</tr>
<tr>
<td>ICRP</td>
<td>-.63</td>
<td>1.54</td>
<td>-.04</td>
<td>-.41</td>
<td>.68</td>
</tr>
<tr>
<td>Housing</td>
<td>-2.97</td>
<td>2.01</td>
<td>-.21</td>
<td>-1.48</td>
<td>.14</td>
</tr>
</tbody>
</table>

*Note.* Dependent variable: STD_MIR; $R^2 = .031$.

As a second step, I conducted a regression analysis including only three of the dependent variables: Language level prior to study abroad participation, the completion of the ICRP and the type of housing available on the program. Even with the remaining three variables, the results indicate the relationship among them is too close to determine
a relationship with developing autonomy dependent variable. Table 38 presents the full analysis.

Table 38

*Summary of Level Two Multiple Regression Analysis for MIR Juniors/Seniors*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(constant)</td>
<td>56.96</td>
<td>1.34</td>
<td></td>
<td>42.26</td>
<td>.00</td>
</tr>
<tr>
<td>Lang-pre</td>
<td>1.55</td>
<td>1.53</td>
<td>.11</td>
<td>1.01</td>
<td>.32</td>
</tr>
<tr>
<td>ICRP</td>
<td>-4.86</td>
<td>1.51</td>
<td>-.03</td>
<td>-.32</td>
<td>.75</td>
</tr>
<tr>
<td>Housing</td>
<td>-2.34</td>
<td>1.60</td>
<td>-.17</td>
<td>-1.46</td>
<td>.15</td>
</tr>
</tbody>
</table>

*Note.* Dependent variable: MIR; $R^2 = .028$.

**Dependent Variable: Openness to Diversity**

Table 39 presents the first analysis for the MGUDS-S score. Again, there is evidence of a strong relationship between language level prior to participation and the language spoken on-site in the study abroad program. Additionally, the relationship between housing and the language spoken on-site is high. Cohen and Holliday (1982) suggest that modest correlations are 0.40 to 0.69 and high correlations are 0.70 to .89.

Given the indications that the independent variables may not be independent of each other, I conducted a single item regression analysis for each independent variable and for the dependent variable MGUDS-S. This analysis did not reveal any statistically significant relationships for two of the four independent variables as indicated in the Table 40. However, highest language level achieved prior to study abroad approaches
significance in predicting scores on the MGUDS-S instrument, $\beta = -.20$, $t(2.44) = 2.59$, $p < .05$. This test is adequate to detect small sized differences (power = .7660, effect size = .07). The independent variable language on-site approaches significance in predicting scores on the MGUDS-S instrument, $\beta = -.14$, $t(1.73) = 1.86$, $p < .10$. This test is adequate to detect small sized differences (power = .8527, effect size = .07).

Table 39

*Correlation Table: MGUDS-S Task*

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MGUDS-S</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Lang-pre study abroad</td>
<td>.20</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Lang on-site</td>
<td>.14</td>
<td>.61*</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. ICRP</td>
<td>-.13</td>
<td>.12</td>
<td>.33*</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>5. Housing</td>
<td>.06</td>
<td>.42*</td>
<td>.72*</td>
<td>.32*</td>
<td>–</td>
</tr>
</tbody>
</table>

*Note. N = 48. *p < .05.*

Table 40

*Summary of Single Item Regression Analysis for MGUDS-S*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>$T$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lang-pre</td>
<td>2.59</td>
<td>1.06</td>
<td>.20</td>
<td>2.44</td>
<td>.02</td>
</tr>
<tr>
<td>Lang-site</td>
<td>1.86</td>
<td>1.07</td>
<td>.14</td>
<td>1.73</td>
<td>.08</td>
</tr>
<tr>
<td>ICRP</td>
<td>-1.25</td>
<td>1.11</td>
<td>-.09</td>
<td>-1.13</td>
<td>.26</td>
</tr>
<tr>
<td>Housing</td>
<td>1.04</td>
<td>1.08</td>
<td>.08</td>
<td>.96</td>
<td>.34</td>
</tr>
</tbody>
</table>

*Note. Dependent variable: MGUDS-S score.*
I conducted the first level of regression analysis with all four of the variables. Table 41 includes the results using all four independent variables. Given the results of the chi-square analysis, the first level regression confirms the likely interdependence of the variables. While it appears that the ICRP approaches significance in predicting scores on the MGUDS-S score, $\beta = -.183$, $t(-1.768) = -2.22$, $p < .10$, this test is not adequate to detect small sized differences (power = .6674, effect size = .07).

Table 41

Summary of Level 1 Regression Analysis: MGUDS-S

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>$T$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(constant)</td>
<td>72.60</td>
<td>1.11</td>
<td></td>
<td>65.63</td>
<td>.00</td>
</tr>
<tr>
<td>Lang-pre</td>
<td>1.86</td>
<td>1.44</td>
<td>.16</td>
<td>1.29</td>
<td>.20</td>
</tr>
<tr>
<td>Lang-site</td>
<td>1.66</td>
<td>1.88</td>
<td>.14</td>
<td>.88</td>
<td>.38</td>
</tr>
<tr>
<td>ICRP</td>
<td>-2.22</td>
<td>1.26</td>
<td>-.18</td>
<td>-1.77</td>
<td>.08</td>
</tr>
<tr>
<td>Housing</td>
<td>-.53</td>
<td>1.64</td>
<td>-.05</td>
<td>-.33</td>
<td>.75</td>
</tr>
</tbody>
</table>

Note. Dependent variable: STD_MIR; $R^2 = -.074$.

As a second step, I conducted a regression analysis including only three of the dependent variables: Language level prior to study abroad participation, the completion of the ICRP and the type of housing available on the program. As indicated in Table 42, both the independent factors ICRP and language studied prior to participating in study abroad approach significance as predictors for a student’s score on the MGUDS-S. Again, the ICRP approaches significance in predicting scores on the MGUDS-S score, $\beta = -.166$, $t(-1.768) = -2.22$, $p < .10$. The factor language studied prior to study abroad (Lang-pre)
approaches significance in predicting the MGUDS-S score, $\beta = -.210$, $t(1.98) = 2.48$, $p < .10)$. This test is not adequate to detect small sized differences (power = .5944, effect size = .07). Running a reverse power analysis where the power is set to .80 and the effect size to .07, the sample size is 159. Since the sample size in this test is 105, it could be that lack of greater number of participants prevented finding significant results.

Table 42

*Summary of Level 2 Regression Analysis: MGUDS-S*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>$T$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(constant)</td>
<td>72.47</td>
<td>1.10</td>
<td>66.14</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>Lang-pre</td>
<td>2.48</td>
<td>1.25</td>
<td>.21</td>
<td>1.98</td>
<td>.05</td>
</tr>
<tr>
<td>ICRP</td>
<td>−2.02</td>
<td>1.23</td>
<td>−.17</td>
<td>−1.64</td>
<td>.10</td>
</tr>
<tr>
<td>Housing</td>
<td>.34</td>
<td>1.31</td>
<td>.03</td>
<td>.26</td>
<td>.80</td>
</tr>
</tbody>
</table>

*Note.* Dependent variable: STD_MGUDS; $R^2 = -.066$.

*Research Question 4*

For my final question, I examined the extent to which personal growth and intercultural effectiveness is sustained over time. I calculated $t$ tests of independent means for the results of the SDTLA and the MGUDS-S for juniors and seniors at Michigan College. The juniors would have recently returned from study abroad approximately 10 weeks before taking the SDTLA; the seniors had returned from study abroad 14 months prior to the study. As Table 43 notes, seniors scored higher than juniors on the subtask: Instrumental Autonomy (IA). Winston et al. (1999) describe the IA subtask as indicating
Table 43

*t Tests: Juniors and Seniors SDTLA*

<table>
<thead>
<tr>
<th>Establish Purpose Task (PUR)</th>
<th></th>
<th></th>
<th>Paired Samples t Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>51.10</td>
<td>8.96</td>
<td>53.31</td>
<td>9.11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtask: Educational Involvement (EI)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>53.03</td>
<td>8.80</td>
<td>54.66</td>
<td>8.07</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtask: Career Planning (CP)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>48.25</td>
<td>11.00</td>
<td>50.05</td>
<td>9.99</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtask: Lifestyle Planning (LP)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>46.37</td>
<td>1.41</td>
<td>48.46</td>
<td>1.31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtask: Cultural Participations (CUP)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>57.37</td>
<td>6.21</td>
<td>58.16</td>
<td>6.25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Developing Autonomy Task (AUT)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>51.81</td>
<td>10.04</td>
<td>54.68</td>
<td>8.70</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtask: Emotional Autonomy (EA)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>50.49</td>
<td>10.13</td>
<td>52.38</td>
<td>8.35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtask: Interdependence (IND)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>53.04</td>
<td>10.40</td>
<td>53.68</td>
<td>9.20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtask: Academic Autonomy (AA)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>52.43</td>
<td>9.54</td>
<td>54.36</td>
<td>10.44</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtask: Instrumental Autonomy (IA)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>48.85</td>
<td>1.43</td>
<td>53.35</td>
<td>1.23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mature Interpersonal Relationships Task (MIR)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>56.50</td>
<td>7.14</td>
<td>56.04</td>
<td>7.05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtask: Peer Relationships (PR)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>49.61</td>
<td>1.39</td>
<td>50.27</td>
<td>1.24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtask: Tolerance (TOL)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>58.92</td>
<td>.773</td>
<td>57.91</td>
<td>.766</td>
</tr>
</tbody>
</table>

* *p < .05.*
that students practice effective time management, appropriate goal setting and strategies for achievement, and an ability to manage and solve challenges as they arise. Perhaps it should not be a surprise that seniors scored higher than the juniors in this subtask, but it is comforting to have their movement along this particular subtask statistically validated.

My next step included examining the differences in scores on the MGUDS-S between the junior and senior cohorts. In the realm of intercultural effectiveness as measured by MGUDS-S and presented in Table 44, the scores between juniors and seniors are similar.

Table 44

t Tests: MGUDS Juniors and Seniors

<table>
<thead>
<tr>
<th></th>
<th>Juniors $N = 49$</th>
<th>Seniors $N = 56$</th>
<th>Paired Samples t Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
</tr>
<tr>
<td>MGUDS-S</td>
<td>14.55</td>
<td>1.14</td>
<td>14.56</td>
</tr>
</tbody>
</table>

Both of these tests indicate little difference between the junior and senior cohorts in the area of personal development and intercultural effectiveness. However, given that the students in the Michigan College cohort scored, on average, higher than the national sample in both the SDTLA and the MGUDS-S, this may be an indication that the cohort group characteristics are similar in the areas of psychosocial development and intercultural effectiveness.
Summary

For this study I analyzed 153 completed surveys and divided the completed surveys into three cohorts: sophomores who had not yet participated in study abroad \( (n = 48) \), juniors who had just returned from study abroad \( (n = 49) \), and seniors who had returned from study abroad for more than one year \( (n = 56) \). The largest number of participants in the survey majored in the Social Sciences, with the second largest group in the Natural Science and Mathematics Division.

This study revealed that although there may be differences in the results of the mean scores of the instruments completed by the sophomores, juniors, or seniors, the differences in the means were not statistically significant. Sophomores who had not yet studied abroad did not score statistically higher or lower on either the Student Developmental Task and Lifestyle Assessment (SDTLA) or the Miville-Guzman Short form (MGUDS-S). However, seniors \( (n = 56) \), who had returned a year ago from study abroad, scored higher on Instrumental Autonomy subtask on the SDTLA than juniors who just returned from study abroad.

The Michigan College participants scored higher than the national SDTLA sample in the main tasks Developing Autonomy (AUT) and Mature Interpersonal Relationships (MIR). The cohorts also scored higher than the national sample on five of the subtasks, Educational Involvement (EI), Career Planning (CP), Interdependence (IND), Academic Autonomy (AA), and Tolerance (TOL). The Michigan College participants also scored higher than the national sample for the MGUDS-S. This result may help explain why I was not able to detect any statistically significant growth in either psychosocial
development or intercultural effectiveness between the cohorts, despite whether they had studied abroad or not.

I was unable to determine which elements of a study abroad program impact personal growth and intercultural effectiveness. This was due to the interdependence of my independent program variables and the small sample sizes. The specific program characteristics examined were: language level of participants prior to study abroad, required non-English language use (subjects taught in English or local language), on-site student projects, and type of housing (homestay, residence housing with host nationals, residence housing with North American students).

One key result is a better understanding of the close relationship among these particular independent factors for the study abroad program at Michigan College. The factors ICRP and language level studied abroad appear to approach significance in predicting the score on the MGUDS. The ICRP approaches significance in predicting scores on the MGUDS-S score, $\beta = -.183$, $t(–.325) = –2.22$, $p < .10$. The factor language studied prior to study abroad (Lang-pre) approaches significance in predicting the MGUDS-S score, $\beta = -.210$, $t(1.98) = 2.48$, $p < .10$. Additionally, housing approaches significance in predicting scores on the MIR subtask, $\beta = -.211$, $t(–1.48) = –2.97$, $p < .15$.

Given the evidence from the power analysis, the small sample ($n = 105$) may have hampered finding significant results. In the next chapter, I present conclusions and recommendations for additional studies.
CHAPTER V

DISCUSSION

In the previous chapter I presented the results of the data analysis. In the following pages I focus discussion on these results and what they may or may not reveal about study abroad at Michigan College. The final section includes suggestions and further directions for research.

Overall, this study attempted to answer questions about the influence of study abroad participation on personal development and intercultural effectiveness. Although I was unable to find significant results between cohorts of students who had studied abroad and those who had not, or between recently returned students and those who had returned from the program a year prior, we should not conclude so quickly that growth in personal development or intercultural effectiveness did not take place. I simply was not able to demonstrate this effect in this particular study.

Findings

Differences Between Cohorts

This study revealed that although there may be differences in the results of the mean scores of the instruments completed by the sophomores, juniors, or seniors, the differences in the means were not statistically significant. Sophomores who had not yet studied abroad did not score statistically higher or lower on either the Student
Developmental Task and Lifestyle Assessment (SDTLA) or the Miville-Guzman Short form (MGUDS-S) than their junior and senior colleagues. However, seniors \((n = 56)\), who had returned a year ago on study abroad, scored higher on Instrumental Autonomy subtask on the SDTLA than juniors who just returned from study abroad. The Instrumental Autonomy subtask (IA) indicates the extent to which students are “independent, goal directed, resourceful, and self-sufficient persons” (Winston et al., 1999, p. 12). Despite the importance of independence placed within this task, students should also be able to demonstrate an ability to respect the interconnectedness and interdependence inherent in healthy and positive relationships (Macari et al., 2006; Winston et al., 1999). The developers of the SDTLA also expect, based on their normative sample, that seniors would score statistically significantly higher than juniors or sophomores (Winston et al., 1999).

**Michigan College Cohort and Comparisons to National Samples**

All three of the Michigan College cohorts scored higher than the national SDTLA sample in the main tasks Developing Autonomy (AUT) and Mature Interpersonal Relationships (MIR). The cohorts also scored higher than the sample on five of the subtasks: Educational Involvement (EI), Career Planning (CP), Interdependence (IND), Academic Autonomy (AA), and Tolerance (TOL). Does this mean that Michigan College students are indeed above average in their development? The SDTLA is based on the student development theory from Chickering and Reisser (1993), who presented their model as a series of vectors, emphasizing movement in both directions. As students
complete new challenges and experiences, they would be expected to move along the developmental vectors, occasionally moving back and forth as they negotiated each stage.

Given the high participation of Michigan College students in internships, service-learning activities, and study abroad, these challenging experiences may contribute to the developmental growth of students. However, given that certain characteristics of the national SDTLA sample are unknown (such as participation in internships or study abroad), and that this sample comes from students in the late 1990s, the unknowns make it difficult to come to any conclusion with certainty.

As with the SDTLA, the Michigan College cohort scored higher than the national sample on the MGUDS-S. Because this national sample included only first-year students, this difference could be a result of developmental growth in the area of intercultural effectiveness as the Michigan College sample includes only sophomores, juniors, and seniors.

The Michigan College cohort also scored higher on the subtask Tolerance (TOL) on the SDTLA. The TOL subtask indicates, “respect for and acceptance of those of different backgrounds” (Winston, Miller, & Cooper, 1999, p. 13). The MGUDS-S measures Universal-Diverse Orientation (UDO), a construct that “describes an attitude of awareness and acceptance of both the similarities and differences among people” (Miville et al., 1999, p. 291). Again, even though there is no specific information about the national sample, such as whether they studied abroad, one could consider the unique environment at Michigan College, including the fact that 85% of graduates participate in study abroad, almost 50% of students participate in service-learning projects, and 71% participate in internships and externships.
These three key student experiences at Michigan College have one thing in common besides their experiential nature. They all include a mentoring process and self-reflection that facilitates learning. Kolb (1984) argued that students learning experientially need to have a formal way to connect their experiences to the classroom. Sanford (1966) argued that challenging or new environments without adequate support would sabotage student learning. Newer studies (Anderson & Cunningham, 2009; Connor-Litton, Paige, & Vande Berg, 2009; Nesdale & Todd, 2000) confirm the importance of structured facilitation in contributing to the learning goals both inside and outside the classroom.

The higher scores of the Michigan College cohort may offer one reason I was not able to detect differences between the cohorts. However, another recent study may also provide other arguments. Connor-Litton et al. (2009) recently completed a study focusing on foreign language proficiency gains and intercultural development with 1,300 student participants. Their main conclusions include that students who studied abroad (n = 1,159) made significant gains in both oral language proficiency and intercultural learning (measured by the IDI) versus a control group of students who did not (n = 138). An additional finding showed that students (n = 592) who completed another post-IDI inventory five months after their initial post-assessment test did not show a decrease in score versus a control group (n = 85). This “maintenance” may also be the reason juniors and senior scores on the MGUDS-S and the SDTLA remained relatively similar (Connor-Litton et al., 2009).

These researchers also discovered that students who began language study in high school, continued at college, and then participated in a study abroad program showed
statistically significant gains in intercultural learning as measured by the IDI (Connor-Litton et al., 2009). Given that approximately 50% of the Michigan College cohort completed intermediate to advance language study and that Michigan College offers Spanish, French, German, languages commonly taught in high school, it is likely that the advanced language students began their language study in high school. The high scores on the MGUDS-S and the Tolerance subtask on the SDTLA, while different instruments, purport to measure “respect for and acceptance of those of different backgrounds” (Winston et al., 1999, p. 13), and an attitude of awareness and acceptance of both the similarities and differences among people” (Miville et al., 1999, p. 291). Therefore, the number of Michigan College students with advanced language study offers perhaps another explanation for the scores above the national samples.

**Study Abroad Program Characteristics**

This study did not reveal any statistically significant relationships among the dependent variables, personal growth and intercultural effectiveness as measured by SDTLA score and MGUDS-S score, and the independent variables, the particular elements of a study abroad program. One possible explanation for this is the interconnectedness of the program characteristics examined: language level of participants prior to study abroad, required non-English language use (subjects taught in English or local language), on-site student projects, and type of housing (homestay or residence hall). This particular conclusion is a disappointment in this study regarding the implications for study abroad, but for Michigan College, this result actually leads to a
better understanding of how closely related these program factors are for student participants.

There were three factors that approached significance in predicting scores on two of the instruments. The completion of an Integrative Cultural Research Project (ICRP) and the amount of language studied before participating in study abroad may predict scores on the MGUDS-S instrument. The factor housing also predicted scores on the Managing Interpersonal Relationships (MIR) subtask on the SDTLA. Even though a subsequent power analysis revealed that the sample size was too small for these results to be significant, I am going to briefly examine these three factors further.

*The Integrative Cultural Research Project (ICRP)*

Sixteen Michigan College study abroad programs require the ICRP and approximately 65% of juniors who study abroad complete an ICRP. Although the ICRP component may be administered differently at each program due to the local academic calendar, the core of the project includes a sustained, committed volunteer component (at least 45 hours) combined with a completed journal of field notes and a formal academic paper at the completion of the project. The goal is to encourage students to have an experience outside of the classroom within the local culture addressing local issues in a locally acceptable manner.

Given that students must work or volunteer in the local community as part of an ICRP, the development of intercultural effectiveness would be one expected outcome of this work. Current research supports this finding. Brockington and Wiedenhoeft (2009) interviewed students who had completed an ICRP as part of their study abroad program.
These students reported that the intercultural skills developed during this part of their study abroad experience transferred as they progressed through careers as graduates, even if the post graduate setting was not international.

Additionally, students who complete service-learning projects abroad report an increased intercultural awareness and growth as well as increase in knowledge of world issues and use of cross-cultural communication skills (Gaines-Hanks & Grayman, 2009; Heneveld, 1988). Students participating in a service-learning project also reported an increased knowledge of their own cultural awareness (Elble, 2009). Pisano (2007) interviewed a group of 25 students who conducted a service-learning project overseas. The students reported that the service-learning placements and experiences had direct positive impact on knowledge acquisition (such as improving their language skill) and cultural adaptation in the program.

Students completing an ICRP meet regularly with the local project coordinator who is available to students for questions and support throughout the experience. The on-site coordinator also reviews the field notes and provides feedback. The project also serves as an intervention device for students on study abroad. Recent studies (Vande Berg et al., 2009) propose that interventions, particularly group mentoring on site, lead to greater gains for intercultural learning (Engle & Engle, 2004). Hartman (2008) also argues that mentor relationships are necessary for students to process and understand the new environment and an absence of an on-site mentor may lead to an increase in negative stereotypes by the student participants.

Michigan College study abroad programs include a Resident Director who provides on-site orientation and regular meetings throughout the program. Resident staff
who work with American study abroad students in France and Senegal report that direct encounter with difference is key to culture learning, but this must also be combined with structured reflection, and a solid academic and cultural program guiding the learning process by interpreting cultural differences with and for students (Ziegler, 2006). Sanford (1966) argued that students learn best when provided a balance of challenge and support. Living abroad, particularly attempting to conduct a project in a new culture, provides many challenges. Study abroad programs should also ensure adequate support for this learning environment.

**Housing**

The factor housing also approached significance in predicting scores on the Managing Interpersonal Relationships (MIR) subtask on the SDTLA. Students who score high on this task have demonstrated evidence of healthy levels of dependence and independence with peers. They also demonstrate a high level of respect and acceptance of individuals with backgrounds different from their own (Macari et al., 2006; Winston et al., 1999). Knight and Schmidt-Rinehardt (2004) interviewed both host families and students separately to investigate the homestay component of study abroad. Both students and hosts reported the importance of the home stay as part of the study abroad experience (Knight & Schmidt-Rinehart, 2002). The homestay allows for language learning and better understanding of the host culture (Gutel, 2008; Knight & Schmidt-Rinehart, 2010). Students who live with host families reported learning more about the local culture through their interactions with the family than through their classroom experience while on study abroad (Alred & Byram, 2002; Kauffmann et al., 1992; Laubscher, 1994).
However, the ability to interact with a host family is dependent upon language proficiency. Even though students may report prior to the beginning of a study abroad experience that they intend to seek out informal contact outside the classroom in order to learn about the culture, upon returning students often admit that this was much more difficult to do than they anticipated because of lack of language ability (Knight & Schmidt-Rinehart, 2004; Mendelson, 2004).

Language

With language ability being important in the success of homestays, it is not surprising that the third factor is language, specifically that the amount of language studied prior to going on study abroad also may contribute to intercultural development. Language classes include information about culture and students would be likely to internalize this knowledge for use on study abroad (Atay, 2005; Bowen & Hackett, 2010; Muirhead, 2009). Connor-Litton et al. (2009) report that prior language learning increased intercultural learning, as measured by the Intercultural Development Inventory, for study abroad participants.

Limitations of Study

Population

By narrowing the study to students who studied at Michigan College, a small private liberal arts institution in the Midwest, there was perhaps something lost in the homogenous nature of the institution. Currently 60% of the students are from the state of
Michigan. Additionally, Michigan College emphasizes study abroad throughout the recruitment and admission process, attracting students who want to participate in study abroad as part of their undergraduate experience. One reason no significant change was measured between the cohorts could be that students are already prone to thinking about themselves and others differently before they actually participate in study abroad.

This study focused on students who participated in semester plus programs, students who studied on short-term programs or academic year programs were not included. Because 85% of Michigan College graduates participate in study abroad, there was not a sufficient comparison cohort who did not study abroad. Administering the SDTLA and MGUDS-S to students who did not participate in study abroad would perhaps reveal some differences. The participation rate for this study was adequate, although subsequent power analysis tests indicate a higher participation rate would have helped to make the data more robust. In the end, the small sample sizes may have prevented meaningful analysis.

Design

My goal in this study was to obtain the snapshot of the student and to explore the relationship among personal development, intercultural effectiveness, and type of study abroad program. Further longitudinal studies could examine long-term effects for the study abroad participants. Additional pre- and post-studies of participant groups could provide additional data to demonstrate influences on personal development and intercultural effectiveness. Using sample sizes that include students from various Carnegie level institutions, including community colleges and large public schools, would
create greater diversity among the sample population. Qualitative methods, including interviews of participants and on-site staff, would perhaps provide insight on the relationship between the development of intercultural skills and the completion of a community project.

**Program Variables**

In examining the program variables and how they impact personal development, the study revealed the close relationships between program components. On the Michigan College campus, there is a strong relationship among the four factors examined: highest language level achieved prior to study abroad, language spoken on site, the completion of an ICRP, and the housing situation. I did not anticipate how closely these variables would interact with each other, and the close dependent relationship revealed leaves an impression that there is almost a “path” to study abroad programs for students at Michigan College.

Approximately 50% of the sample cohort had intermediate to advanced language skills; the majority participated in programs with a homestay and conducted an ICRP. Michigan College currently offers 41 study abroad program options. Of these programs, 17 (41%) require intermediate to advance language fluency, 16 (39%) offer an ICRP, and 17 (41%) offer a homestay. A quick survey of other colleges within Michigan College’s consortium reveals a wide variety of study abroad program selection with similar program characteristics, making a weak argument that this close relation among these characteristics is unique to Michigan College.
Other studies have been more successful at capturing the relationship among different program elements and intercultural and developmental growth. The ability to engage in these activities may be a direct result of whether the study abroad program provides meaningful interaction with the host culture (Engle & Engle, 2002). Study abroad program design may facilitate or inhibit the ability of a participant to interact meaningfully with the host culture and thus affects the level of personal development a student may experience during a study abroad program (Stephenson, 2002). However, although organized studies are beginning to investigate this question (Connor-Litton et al., 2009), additional research is necessary to explore how study abroad program design may influence the personal growth of participants (Bolen, 2007; Fernandez, 2006).

**Instruments**

I used the Student Developmental Task and Lifestyle Assessment (SDTLA) because this particular instrument gives a valid measurement of a student’s developmental process in College (Winston et al., 1999). Based on a theoretical model of student development by Chickering and Reisser (1993), the SDTLA is a well established instrument and has been used by researchers examining personal development of college students (Armstrong, 2004; Lathrop, 1999; Lunceford, 2001; Macari et al., 2006; Martin, 2000; Tatum, 2002; Wachs & Cooper, 2002). For this study, I used the web version of the SDTLA, which was very convenient for the student and for processing results, but also meant I had less control over the environment when students completed the survey.

As part of this study, I researched various instruments to find a second instrument designed to measure intercultural effectiveness. The MGUDS-S has been used on college
campuses to measure openness to diversity (Blaich, 2007; Munley et al., 2004; Miville et al., 2004; Miville et al., 2006; Singley & Sedlacek, 2004; Strauss & Connerley, 2003). Its relatively short question form made it less burdensome to combine with the larger SDTLA question set. Unlike the Intercultural Development Inventory (IDI), which costs $10 per test, the MGUDS-S is free. However, it was not designed to measure students on a path or at a particular stage in an intercultural development process. Instead, it is a snapshot picture of a general openness to diversity, based on Universal-Diverse Orientation (Miville et al., 1999), a construct that “describes an attitude of awareness and acceptance of both the similarities and differences among people” (p. 291). In essence, UDO seeks to operationalize “the appreciation of cultural diversity or the motivation to control prejudice reactions” (Burkhard et al., 2002, p. 356).

Since I began my study, there have been more instruments introduced to the international education environment. These instruments include the Global Perspectives Inventory (GPI) and the Beliefs, Events, and Values Inventory (BEVI). The BEVI measures international learning by determining “receptivity to different cultures, religions, and social practices” (“About the BEVI,” n.d.). The BEVI is based on Equilintegration (EI) Theory formulated by Shealy (2006) to describe how an individual’s concept of his/her self influences his/her own beliefs and values. In 2007, the Forum on Education Abroad organized a pilot study using the BEVI with 11 different institutions with the purpose of testing the instrument and developing a process to use pre- and post-study abroad. In 2009, the Forum reported completion of the initial phase along with a plan to incorporate this instrument in a longitudinal study on study abroad (Forum BEVI Project, n.d.). Reisweber (2008) used the BEVI in a pilot study attempting to explore the
link between the EI self and intercultural development. By using the BEVI, he was able to successfully identify in advance which students would increase or decrease their intercultural awareness, as measured by the Intercultural Development Inventory (IDI).

The Global Perspectives Inventory (GPI) is a 45-item instrument originally designed to holistically measure student development and learning (Braskamp, 2008), but the researchers discovered several items that correlated highly with “global citizenship.” The instrument focuses on three domains and two scales for each: cognitive (knowing and knowledge scale), interpersonal (identity and affect scales), and intrapersonal (social interactions and social responsibility). Braskamp, Braskamp, and Merrill (2009) administered the GPI as a pre- and post-test to a group of 245 students who participated in a semester study abroad program. They reported success in measuring statistically significant changes in five of the six scales measured by GPI, arguing that semester abroad experience contributed to both developmental growth and global awareness of the students (Braskamp et al., 2009).

Future Research

Researchers should continue to question the outcomes of study abroad. Perhaps one direction would be to return full circle and begin to reexamine some of the original study abroad research and focus on language acquisition and academic outcomes first studied in the Study Abroad Evaluation Project (Opper et al., 1990; Teicher & Steube, 1991). Recent work by Connor-Litton et al. (2009) is reminiscent of this large study. Their research includes pre- and post-testing of 1,300 students over 6 years using the Intercultural Development Inventory (IDI) to examine intercultural growth and language
gains. One finding is that interventions to the student experience do matter, including on-site mentoring or regular meaningful contact with a professor from the home institution (Connor-Litton et al., 2009). Nesdale and Todd (2000) also suggest that a program should design an intervention to mediate a meaningful exchange between the members of the majority and minority culture. Future research could help clarify the type and frequency of interventions that are most effective on the academic and social development of students on study abroad.

Another direction for future researchers is to focus on the instruments and methodologies used to measure outcomes in study abroad. Since beginning this study, several additional instruments have been introduced and more campuses are attempting to develop their own instruments for measuring outcomes. With the different choices, further research could lead to the emergence of instruments that most effectively measure outcomes of study abroad. However, in selecting instruments, the international education community would also be making choices about what outcomes are most important for study abroad.

While the number of students studying abroad grows, further research should investigate accessibility to these international opportunities. Study abroad remains mostly the purview of white, middle class, female students at four-year private institutions (Stearns, 2009). Researchers are beginning to examine the factors that encourage or prohibit participation by race (Holmes, 2008; Kasravi, 2009), by gender (Segura, 2008), or rates of participation for community college students (Gregor, 2009). More efforts in this area could promote study abroad to a wider audience.
Summary

This study focused on two outcomes for study abroad—personal development and intercultural effectiveness. Even though this study did not find any significant relationships among study abroad program elements, personal development, and intercultural effectiveness in the cohorts studied and with the instruments employed, contributions to the research have been made by using both of these instruments in this study. There is also some indication that certain program factors do matter in the development of intercultural effectiveness, such as language level prior to departure and the presence of an on-site mentor. Additionally, Michigan College has benefited by having a better understanding of the relationships of program characteristics to outcomes for student development and intercultural development.

As there is a larger call for almost one million U.S. students to study abroad in the next decade (Fischer, 2009), educators must articulate the outcomes and goals for study abroad programs and attempt to understand the components necessary for creating a meaningful experience for their students. There is already evidence of a greater effort in this direction. When I began this study, the research on study abroad was limited. My first searches on the dissertation abstracts database yielded only 75 results, and some of these dated from the 1980s. However, as I complete this study, a search using the same key words on dissertation abstracts database yields over 250 results, from 2005. I am not alone in this observation, as international educators project that the amount of research articles on study abroad will expand to 1,000 journal articles (Comp et al., 2007).
Hopefully these efforts will not stay in the library, but will become incorporated into best practices for international education.
REFERENCES


Knight, S., & Schmidt-Rinehart, B. (2002). Enhancing the homestay: Study abroad from the host family’s perspective. *Foreign Language Annals, 35*(2), 190-201.


Appendix A

Michigan College Study Abroad Programs
# Michigan College Study Abroad Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Language Level</th>
<th>Language of Instruction</th>
<th>ICRP</th>
<th>Housing</th>
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</table>
Appendix B

Permission to Reprint the Student Developmental Task
and Lifestyle Assessment
On 1/13/2011 9:28 AM, Margaret Wiedenhoeft wrote:

Good morning Ms. Morgan,

I used the web based SDTLA in the spring of 2008 as part of my dissertation research. I am preparing my final draft of my dissertation and I would like to include the SDTLA questions in the appendix as long as I have the appropriate permission to reprint. As this was originally created by Winston, Miller, and Cooper, would I need to obtain their permission as well? Any advice is much appreciated!

Thank you,
Margaret

Margaret Wiedenhoeft

From: Susan Morgan [mailto:morgansb@appstate.edu]
Sent: Thursday, January 13, 2011 5:13 PM
To: Margaret Wiedenhoeft
Subject: Re: reprint SDTLA questions in appendix of my dissertation?

Margaret,

We own the SDTLA now after purchasing it from the authors. I see no reason why you can't publish the questions. I can send you the paper and pencil version of the exam. The questions are essentially the same. I am attaching a copy of the revised edition.

I would assume you would need to credit the authors in the appendix.

Susan
Appendix C

Student Developmental Task and Lifestyle Assessment
The *Student Developmental Task and Lifestyle Assessment* is composed of statements shown to be typical of some students and is designed to collect information concerning college students' activities, feelings, attitudes, aspirations, and relationships. The Assessment is designed to help students learn more about themselves and for colleges to learn how to assist students more effectively. The SDTLA’s usefulness depends entirely on the care, honesty, and candor with which students answer the questions.

It will require about 25-35 minutes for you to complete this questionnaire.

**DIRECTIONS**

For each question choose the *one response* that most closely reflects your beliefs, feelings, attitudes, experiences, or interests. Record your responses as directed.

- Consider each statement carefully, but do not spend a great deal of time deliberating on a single statement. Work quickly, but carefully.

In this questionnaire, "college" is used in a general sense to apply to both two and four year colleges, as well as universities; it refers to all kinds of post-secondary educational institutions.

- If you have no parent, substitute guardian or parent equivalent when responding to items about parent(s).
Part 1: Statements 1-21

Respond to the following items by marking: A =True, B =False

1. I never regret anything I have done.

2. I am currently involved in one or more activities that I have identified as being of help in determining what I will do with the rest of my life.

3. I followed a systematic plan in making an important decision within the past thirty days.

4. I have personal habits that are potentially dangerous for my health.

5. I like everyone I know.

6. It’s important to me that I be liked by everyone.

7. I would prefer not to room with someone who is from a culture or race different from mine.

8. I never get angry.

9. Within the past six months, I have experienced unfamiliar artistic media or performances.

10. During the past 12 months, I have acquired a better understanding of what it feels like to be a member of another race.

11. Since beginning college, my friends have become more frequent sources of support than my parents.

12. I only attend parties where there are plenty of alcoholic beverages available.

13. I never say things I shouldn’t.

14. Within the past six months, I have learned about or experienced a culture different from my own through artistic expression.

15. I never lie.

16. I always take precautions (or abstain) to assure that I will not contract a sexually transmitted disease (STD).
17. Within the past 12 months, I have undertaken an activity intended to improve my understanding of culturally/racially different people.

18. I never get sad.

19. Within the past 12 months, I had a conversation or discussion about the arts outside of class.

20. I avoid discussing religion with people who challenge my beliefs, because there is nothing that can change my mind about my beliefs.

21. Within the past 12 months, I have undertaken an activity intended to improve my understanding of people with disabilities.

**Part 2: Statements 22-68**

Respond to the following statements by selecting the appropriate letter:

A = Never (almost never) true of me

B = Seldom true of me

C = Usually true of me

D = Always (almost always) true of me

22. I satisfactorily accomplish all important daily tasks (e.g., class assignments, test preparation, room/apartment cleaning, eating, and sleeping).

23. I seek out opportunities to learn about cultural/artistic forms that are new to me.

24. It bothers me if my friends don’t share the same leisure interests as I have.

25. I’m annoyed when I hear people speaking in a language I don’t understand.

26. I have made conscious efforts to make the college a better place to attend.

27. I have a difficult time in courses when the instructor doesn’t regularly check up on completion of assignments.

28. I pay careful attention to the nutritional value of the foods I eat.

29. I feel comfortable socializing with people who have physical, emotional, sensory, or learning disabilities.
30. I plan my activities to make sure that I have adequate time for sleep.

31. I seek to broaden my understanding of culture (e.g., art, music, or literature).

32. When I wish to be alone, I have difficulty communicating my desire to others in a way that doesn’t hurt their feelings.

33. I avoid groups where I would be of the minority race.

34. My classmates can depend upon me to help them master class materials.

35. I don’t perform as well in class as I could because I fall short of requirements.

36. I limit the quantity of fats in my diet.

37. Because of my friends’ urgings, I get involved in things that are not in my best interest.

38. A person’s sexual orientation is a crucial factor in determining whether I will attempt to develop a friendship with her/him.

39. It’s more important for me to make my own decisions than to have my parent’s approval.

40. I conceal some of my talents or skills so I will not be asked to contribute to group efforts.

41. I have plenty of energy.

42. It’s more important to me that my friends approve of what I do than it is for me to do what I want.

43. It’s hard for me to work intensely on assignments for more than a short time.

44. I am satisfied with my physical appearance.

45. I feel uncomfortable when I’m around persons whose sexual orientation is different from mine.

46. When in groups, I present my ideas and views in a way that it’s clear I have given them serious thought.

47. It’s very important to me that I am successful both inside and outside the classroom.

48. My weight is maintained at a level appropriate for my height and frame.
49. My personal habits (e.g., procrastination, time management, assertiveness) get in the way of accomplishing my goals or meeting my responsibilities.

50. I try to avoid people who act in unconventional ways.

51. I accept criticism from friends without getting upset.

52. I get bored and quit studying after working on an assignment for a short time.

53. I eat well-balanced, nutritious meals daily.

54. I find it difficult to accept some of the ways my close friends have changed over the past year.

55. I have difficulty following through with decisions I have made when I discover others (e.g., parents or friends) disagree with these decisions.

56. I have difficulty disciplining myself to study when I should.

57. I exercise for 30 minutes or more at least 3 times a week.

58. I don’t socialize with people of whom my friends don’t approve.

59. My study time seems rushed because I fail to realistically estimate the amount of time required.

60. I plan my week to make sure that I have sufficient time for physical exercise.

61. I feel confident in my ability to accomplish my goals.

62. I am annoyed when I have to make an accommodation for a person with a disability.

63. I become inebriated from the use of alcohol on weekends.

64. I try to dress so that I will fit in with my friends.

65. It’s essential that those important to me approve of everything I do.

66. Even when I’m not particularly interested in a subject, I’m able to complete course requirements satisfactorily.

67. It’s important to me that I achieve to the limits of my abilities.

68. I use library materials, resources, and facilities effectively.
Part 3: Statements 69-73

Respond to the items below by selecting one of the following:
A = Strongly Agree, B = Agree, C = Disagree, D = Strongly Disagree

69. I have arranged my living quarters in a way that makes it easy for me to study, sleep, and relax.

70. I have become more culturally sophisticated since beginning college.

71. Learning to live with students from cultural or racial background different from mine is an important part of a college education.

72. Society has a responsibility to assist people who cannot sustain themselves.

73. As a citizen, I have the responsibility to keep myself well-informed about current issues.

Part 4: Statements 74-87

Respond to the statements below by selecting one of the following:
A = Never, B = Seldom, C = Sometimes, D = Often

74. I wonder what my friends say about me behind my back.

75. I dislike working in groups when there are a significant number of people who are from a race or culture that is different from mine.

76. Within the past year, I have participated in activities that directly benefited my fellow students.

77. Within the past 3 months, I engaged in activities that were dangerous or could be risky to my health.

78. I have used my time in college to experiment with different ways of living or looking at the world.

79. I am confident in my ability to make good decisions on my own.

80. I participate in community service activities.

81. I trust the validity of my values and opinions, even when they aren’t shared by my parent(s).

82. I express my disapproval when I hear others use racial or ethnic slurs or put-downs.
83. I have an inner sense of direction that keeps me on track, even when I am criticized.

84. In the past 6 months, I have gone out of my way to meet students who are culturally or racially different from me because I thought there were things I could learn from them.

85. I feel anxious when confronted with making decisions or taking actions for which I am responsible.

86. I meet my responsibilities to my parent(s) as well as I should.

87. Within the past 12 months, I have taken a public stand on issues or beliefs when many friends and acquaintances didn’t agree.

**Part 5: Statements 88-153**

Select the one best response from the alternatives provided.

88. After a friend and I have a heated argument, I will
   A. Never (almost never) speak to him/her.
   B. Seldom speak to him/her.
   C. Usually speak to him/her.
   D. Always speak to him/her.
   E. I never have disagreements with friends.

89. In terms of an academic major or concentration,
   A. I am uncertain about possible majors and am a long way from a decision.
   B. I have thought about several majors, but haven’t done anything about it yet.
   C. I have made a tentative decision about what I major in.
   D. I have made a firm decision about a major, but I still have doubts about whether I have made the right decision.
   E. I have made a firm decision about a major in which I am confident that I will be successful.

90. Thinking about employment after college,
   A. I do not know how to find out about the prospects for employment in a variety of fields.
   B. I have a vague idea about how to find out about future employment prospects in a variety of fields.
   C. I know one source that could provide information about future employment prospects in a variety of fields.
   D. I know several sources that can provide information about future employment prospects in a variety of fields.
91. When thinking about the kind of life I want 5 years after college, I have ...
   A. not come up with a very clear picture.
   B. a vague picture, but have been unable to identify the specific steps I need to take now.
   C. a clear enough picture that I can identify the step necessary for me to take now in order to realize my dream, even though I haven’t done very much about it yet.
   D. a clear enough picture and identified the steps.

92. During this academic year,
   A. I have organized my time well enough for me to get everything completed.
   B. I sometimes had difficulty organizing my time well enough to get everything done.
   C. I often had difficulty organizing my time well enough to get everything done.
   D. I seldom seem able to organize my time well enough to do everything.

93. I participate in the arts (e.g., draw, write, play musical instrument, or sing) just for my own enjoyment.
   A. I never (almost never) do this.
   B. I seldom do this.
   C. I occasionally do this.
   D. I frequently do this.

94. When faced with important decisions this year, I have ...
   A. relied on others-such as parent(s), friend(s), or teacher(s)-to tell me what to do.
   B. sought information and opinions, but made the final decisions on my own.
   C. relied on myself alone in making the decisions.
   D. attempted to avoid making decisions as much as possible.

95. I have identified, and can list, at least 3 ways I can be an asset to the community.
   A. No, I haven’t thought about that much.
   B. No, I don’t know what I can contribute.
   C. No, that’s not important to me.
   D. Yes.

96. During this academic year,
   A. I have tended to put off most school work, and assignments to the last minute and, as a result, don’t do as well as I could.
   B. I have often forgotten about assignments or put them off so long that I was unable to turn them in on time.
   C. I have established a study routine that has enabled me to get most school work and assignments completed on time and to my own satisfaction.
   D. I have established a study routine that has enabled me to get all work and assignments completed on time and to my own satisfaction.
97. When I have experienced stress or tension this term,
   A. I have most often sought relief by listening to music, reading, or visiting friends.
   B. I have most often had a few drinks or beers to relax.
   C. I have most often exercised, worked out, or played a sport.
   D. I have kept on going and ignored the stress.
   E. I have had occasions when it became too much to handle and I had to take days off to relax or rest/sleep.

98. In terms of the array of possible academic majors at this college, I have ...
   A. not spent much time investigating the possibilities.
   B. talked to some students about their majors, but have not done any systematic investigation.
   C. read the catalog and talked to some students and/or faculty/staff members about possible majors.
   D. made a systematic effort to learn about possible majors and what they entail.
   E. made a systematic effort to learn about possible majors and have carefully looked at my abilities and interests and how they fit different majors.

99. Within the past 6 months,
   A. I haven’t seriously thought about possible post-college jobs or careers.
   B. I have thought about possible post-college jobs or career, but haven’t done much about exploring the possibilities.
   C. I have asked relatives, faculty members, or others to describe positions in the fields in which they are working.
   D. I have taken definite steps to decide about a career, such as visiting a counselor, placement center, or persons who hold the kinds of positions in which I am interested.

100. If something were to prevent me from realizing my present educational plans, I have ...
   A. no idea what else I might pursue.
   B. a vague notion about acceptable alternatives.
   C. several acceptable alternatives in mind, but I haven’t explored them very much.
   D. several acceptable alternatives in mind, which I have explored in some detail.

101. When I have heated disagreements with friends about matters such as religion, politics, or philosophy, I ...
   A. am likely to terminate the friendship.
   B. am bothered by their failure to see my point of view but hide my feelings.
   C. will express my disagreement, but will not discuss the issue.
   D. will express my disagreement and am willing to discuss the issue.
   E. don’t talk about controversial matters.
102. I have made a positive contribution to my community (residence hall, campus, neighborhood, or hometown) within the past 3 months.  
A. No, that isn’t important to me.  
B. No, I don’t know what I could do to make a positive contribution.  
C. No, but I have tried to find ways.  
D. Yes.

103. In terms of an academic major/concentration, I have...  
A. determined what all the requirements are and the deadlines by which things must be done, for the major I have chosen.  
B. investigated the basic requirements for graduating with a degree in my academic major.  
C. a general idea about the courses and other requirements needed in my major.  
D. not paid much attention to the requirements for my major; I depend on my advisor or others to tell me what to take.  
E. yet to decide on an academic major.

104. I have decided the place (if any) that marriage has in my future.  
A. No, I will just wait to see what develops.  
B. No, I don’t think about it.  
C. No, but I know what I would like to have happen.  
D. Yes, I have made a definite decision.

105. I am familiar with sources of help on campus (e.g., tutoring, counseling, academic information, library research tools and procedures, and computers).  
A. I really don’t know much about these things.  
B. I know about a few.  
C. I know about most of them.  
D. I know about all of them.

106. When I don’t agree with someone in authority (e.g., professor, administrator), I ...  
A. never express my opinion.  
B. express my opinion only when I am angry.  
C. express my opinion when asked.  
D. express my opinion if given a chance.  
E. avoid dealing with persons in position of authority if possible.

107. Within the past 3 months, I have taken an active part in a recycling activity/program.  
A. No, recycling is too much trouble.  
B. No, I don’t know where to dispose of materials.  
C. Yes, I have participated occasionally.  
D. Yes, I have participated regularly.  
E. Yes, I have participated and promoted recycling activities to others.
108. I use tobacco products (smoke, chew, or dip).
   A. Never.
   B. Once a week or less.
   C. Several times a week.
   D. Most days.
   E. Everyday.

109. In terms of the labor market demand for people with a degree in my major, in the career area in which I am most interested,
   A. I have yet to decide on a career area and/or academic major.
   B. I don’t have much of an idea of what I will face upon graduation.
   C. I have a general, although somewhat vague, picture of what I will face upon graduation.
   D. I have investigated things enough to be pretty clear about what I will face upon graduation.

110. I can clearly state my plan for achieving the goals I have established for the next 10 years.
   A. No, because I have no specific goals for the next 10 years.
   B. No, because I don’t like making detailed plans for long-range goals.
   C. No, because I haven’t worked out my plan completely.
   D. Yes.

111. Within the past month,
   A. I took the initiative to bring several people together to resolve a mutual problem.
   B. I joined with several people to resolve a mutual problem.
   C. I have not encountered a problem that needed a group effort to solve.
   D. I have avoided situations that required me to work with other people in solving problems.

112. Within the last 12 months, I have attended a play or classical music concert when not required for a class.
   A. Yes
   B. No, I don’t like those kinds of things.
   C. No, I just haven’t gotten around to it.
   D. No, there aren’t such things available here.
113. If I thought my friends would disapprove of a decision I made, I would most likely ..
   A. try to keep them from finding out (keep it a secret).
   B. tell them and pretend I didn’t care what they thought.
   C. tell them and explain my reasoning for this decision.
   D. make up something to mislead them from knowing the truth.

114. In the past 12 months, I have taken an active part in activities or projects designed to improve the community, such as a charity drive, clean up campaign, or blood drive:
   A. Never
   B. Once
   C. Twice
   D. Three times
   E. Four or more times

115. I have more than one drink (i.e., 1.5 ounces of liquor, 5 ounces of wine, or 12 ounces of beer).
   A. Never
   B. Once a week or less
   C. Two to three times a week
   D. Most days
   E. Everyday

116. Over the past 12 months at this college, I have ...
   A. taken the initiative to set up conferences with an academic advisor.
   B. kept appointments with an academic advisor when she/he scheduled them.
   C. avoided dealing with my academic advisor.
   D. not investigated how obtain academic advising.
   E. not been at this college long enough to get involved in academic advising.

117. In the past year,
   A. I have discussed my career goals with at least 2 professionals in the field that interests me most.
   B. I have had minimal exposure to people in the career field that interests me most.
   C. I know several professionals in the career field in which I am most interested, but I haven’t talked to them about entering the field.
   D. I have yet to decide on a career area.

118. My plans for the future are consistent with my personal values (for example, importance of service to others, religious beliefs, importance of luxuries, desire for public recognition).
   A. No, my future plans are unclear and 1am undecided about my personal values.
   B. No, my future plans are clear, but I am undecided about my personal values.
   C. No, my future plans are unclear, but I am clear about my personal values.
   D. Yes, I have recently begun to think about how my values will shape my future.
   E. Yes, I thought about this a lot and have a clear plan.
119. Each day,
   A. I depend on my memory to make sure that I get done what needs to be done, and that works for me.
   B. I keep a calendar or make a "To Do" list of what needs to be done each day and that works for me.
   C. I dislike planning what I need to do; I just let things happen and that works for me.
   D. I don’t make detailed plans about what I need to do each day, and as a result I forget important things.

120. Within the past 12 months, I have visited a museum or an art exhibit when not required for a class.
   A. Yes
   B. No, I don’t like those kinds of things.
   C. No, I just haven’t gotten around to it.
   D. No, there aren’t such things available here.

121. In regard to social issues (e.g., homelessness, environmental pollution, or AIDS),
   A. I don’t think much about them.
   B. I am concerned, but haven’t taken any specific actions.
   C. I contribute money to organizations that address the issue(s), but that is the extent of my involvement.
   D. I am actively involved in organizations that address the issues(s).

122. I have a mature working relationship with one or more members of the academic community (faculty member, student affairs/services staff member, administrator).
   A. Yes
   B. No, I don’t like dealing with them.
   C. No, I have tried to form relationships, but haven’t been successful yet.
   D. No, I don’t know any.
   E. No, I don’t have time for that kind of thing.

123. When thinking about occupations I am considering entering,
   A. I don’t know what is required in order to be competitive for a job.
   B. I haven’t decided which occupations interest me most.
   C. I have a general idea of what is required.
   D. I can list at least 5 requirements.
124. I have developed strategies to maximize my strengths and to minimize my weaknesses in order to accomplish my goals in life.
   A. No, I don’t know myself that well.
   B. No, I haven’t figure out how to do that.
   C. No, I don’t have a clear picture of my life goals.
   D. Yes, I have done this, but I’m not very confident about my strategies.
   E. Yes, I have done this, and I am confident that my strategies will be effective.

125. I have one or more goals that I am committed to accomplishing and have been working on for over a year.
   A. No, I don’t like making definite goals.
   B. No, I have tried, but have been unable to follow through.
   C. No, I have difficulty making realistic long range plans.
   D. Yes.

126. Over the past year, I have frequently participated in cultural activities.
   A. No, that isn’t something that I enjoy or consider important.
   B. No, there haven’t been any cultural activities available in which I could participate.
   C. I have attended when others have encouraged or invited me.
   D. Yes, I have taken advantage of as many opportunities as I could manage.
   E. Yes, only when required by the college.

127. Within the past 12 months, I contributed my time to a worthy cause in my community (campus or town/city).
   A. No
   B. 1-10 hours
   C. 11-20 hours
   D. 21-30 hours
   E. 31 or more hours

128. Within the past 12 months,
   A. I haven’t attended any non-required lectures, programs, or activities dealing with serious intellectual subjects.
   B. I have attended 1 or 2 non-required lectures or programs dealing with serious intellectual subjects.
   C. I have attended 3 or 4 lectures or programs dealing with serious intellectual subjects that were not required for any of my courses.
   D. I have attended 5 or more lectures or programs dealing with serious intellectual subjects that were not required for any of my courses.
129. In terms of practical experience in the career area I plan to pursue after college, I have ...
   A. yet to decide on a post-college career area.
   B. had no experience.
   C. had very little experience.
   D. had some experience.
   E. had a great deal of experience.

130. I am involved in hobbies or leisure activities today that I see myself continuing to pursue 10 years from now.
   A. Yes
   B. No
   C. I don’t know

131. In addition to my academic studies,
   A. I spend much of my free time involved in organized activities on campus or in the community.
   B. I spend most of my free time “ goofing off” or watching television.
   C. I spend most of my free time with friends doing things we enjoy.
   D. I spend most of my time working to support myself and/or caring for my family.

132. In regards to college organizations specifically related to my chosen occupational field, I have ...
   A. yet to decide on a post-college occupational field.
   B. investigated joining one or more, but have not actually joined.
   C. joined one or more, but am not very involved.
   D. joined one or more and am actively involved.

133. I have investigated what I must do in order to satisfy my need or desire for material goods, such as cars, clothes, and a home once I complete my education.
   A. No, I’m unsure about how important material goods are to me.
   B. No, I haven’t thought much about what I will need to do.
   C. No, I have given some thought to this, but things are still unclear.
   D. Yes, I’m somewhat sure that I will be able to satisfy my needs/desires.
   E. Yes, my current plans are likely to meet my needs or desires.

134. I have formed a personal relationship (friendly acquaintanceship) with one or more professors.
   A. Yes, but I find it difficult to talk to him/her (them).
   B. Yes, we often enjoy interacting with each other.
   C. No, I would like to but haven’t taken any action.
   D. No, I would like to and have tried unsuccessfully.
   E. No, because that isn’t important to me.
135. Considering beginning-level positions in business, industry, government, or education for which I would be eligible when I complete my education, I...

A. can name 3 or more.
B. can name only 2.
C. can name only 1.
D. cannot name any.
E. haven’t made a decision about my academic major/concentration; therefore, I don’t know for what I might be qualified.

136. I have considered the kinds of trade offs (in areas such as family time, leisure time, job status, income, or time with friends) I will need to make in order to have the kind of lifestyle I want to have 5 years after completing my education.

A. I haven’t thought about this at all.
B. I have thought about this in general.
C. I have a fairly clear idea of the tradeoffs required.
D. I have a very clear idea of the trade offs required.

137. I have been actively engaged in a student organization or college committee in the past 6 months.

A. Yes
B. No, I don’t have time because of my job(s) and/or family responsibilities.
C. No, I am not interested.
D. No, I haven’t been in college long enough.
E. No, but I plan to do so soon.

138. When thinking about narrowing the number of career areas I wish to explore, I have identified specific personal abilities and limitations which I can use to guide my thinking.

A. I have identified specific personal abilities and limitations which I can use to guide my thinking.
B. I have some general ideas about what I would be successful in.
C. I have only a vague sense of where I can best use my skills or minimize my shortcomings.
D. I have never thought about careers in this way.

139. I am purposefully developing intellectual skills and personal habits that will assure that I continue to learn after completing my formal education.

A. I haven’t thought about this.
B. I rely completely on course requirements to do this.
C. I think about this some times.
D. I do this systematically.
140. Within the past 3 months, I have had a serious discussion with a faculty member concerning something of importance to me.
   A. No, I don’t like talking to faculty members.
   B. No, I have tried, but was unsuccessful.
   C. No, I haven’t found one who seemed willing to interact in that way.
   D. Yes, I initiated such a discussion.
   E. Yes, I responded to a faculty member’s initiative.

141. Within the past 3 months,
   A. I haven’t thought seriously about my career.
   B. I have read about a career I am considering.
   C. I have been involved in activities directly related to my future career.
   D. I have thought about my career, but things are still too unsettled for me to take any action yet.

142. I have weighed the relative importance of establishing a family in relation to other life goals.
   A. No, my desire to establish a family is too uncertain.
   B. No, my life goals are too uncertain.
   C. Yes, but my priorities tend to change.
   D. Yes, my priorities about these goals are clear.

143. While in college I have acquired practical experience directly related to my educational goals through an internship, part-time work, summer job, or similar employment.
   A. No, I haven’t been enrolled long enough.
   B. No, I haven’t thought about it very much.
   C. No, I have yet to establish any specific educational goals.
   D. Yes, I did it to satisfy program requirements.
   E. Yes, I did it on my own initiative.

144. I have established a specific plan for gaining practical experience in the career area I plan to pursue after college.
   A. No, I have yet to decide on a career area.
   B. No, but that is something I should be doing.
   C. No, that isn’t something I want to do.
   D. Yes, but I haven’t actually acted on my plan.
   E. Yes, and I have begun implementing my plan.
145. I have considered how my present course of study will impact my goals for the future.
   A. No, I haven’t thought about this at all.
   B. Yes, I have thought about this, but it’s unclear how my studies will shape my future.
   C. Yes, I have a fairly clear idea about how my studies will shape my future.
   D. Yes, I have a very clear picture of how my studies will shape my future.

146. I have developed a financial plan for achieving my educational goals.
   A. No, my parent(s) are taking care of it.
   B. Yes, I have a plan which depends on the continuation of the present level of funding.
   C. No, I haven’t thought much beyond the current term.

147. I carefully investigated the intellectual abilities and necessary academic background needed to be successful in my chosen academic major.
   A. No, I have yet to make a definite decision about an academic major/concentration.
   B. No, I chose my major/concentration solely on the basis of what I enjoyed most.
   C. No, I have narrowed the choice down to a few areas, but haven’t really investigated majors in that way.
   D. No, I never thought about it in that way.
   E. Yes.

148. I am acquainted with at least one person who has a disability.
   A. Yes.
   B. No, I have not met anyone with a disability.
   C. No, I am not interested in knowing anyone with a disability.

149. Within the past 3 months, I have read a non-required publication related to my major field of study.
   A. No, I have yet to decide on an academic major/field of study.
   B. No, I don’t have time to read such things.
   C. No, that would be too boring.
   D. Yes.

150. I am acquainted with at least 3 persons who are actively involved in the kind of work I visualize for myself in the future.
   A. Yes.
   B. No, I haven’t met many people doing the work I visualize for myself.
   C. No, I have yet to decide on a post-college occupational area.
   D. No, I don’t think that is very important.
151. I often have trouble visualizing day-to-day work in the career area I have selected.
   A. Yes, because I have yet to decide on a career area.
   B. Yes, because I don’t know what routine work in my career area is really like.
   C. Yes, because I don’t like to think about that.
   D. No, I can visualize work in that area, but I’m not sure that it’s realistic.
   E. No, I have a clear and realistic picture of work in my career area.

152. Within the past 12 months, I have had a serious conversation about my long-term educational objectives with an academic advisor or other college official.
   A. No, I don’t know to whom to talk.
   B. No, I have tried, but no one will help me.
   C. No, but I want to do that.
   D. No, I don’t want my options limited.
   E. Yes.

153. While in college, I have visited a career center or library to obtain information about a chosen career.
   A. No, but I will do that when I find time.
   B. No, I don’t need career information.
   C. No, there is no place or person that deals with careers on my campus.
   D. Yes.

   END
Appendix D

Human Subjects Institutional Review Board
Letter of Approval
Date: May 19, 2008

To: Andrea Beach, Principal Investigator
Margaret Wiedenhoft, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number: 08-05-17

This letter will serve as confirmation that your research project entitled “Study Abroad Program Design, Personal Development, and Intercultural Effectiveness” has been approved under the expedited category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may only conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: May 19, 2009
Appendix E

Student Consent Form
Dear Students,

I would like to invite you to participate in a web-based survey. I am currently in the process of my dissertation research studying the relationship between study abroad program design and its influence on the personal growth and intercultural effectiveness of students who study abroad. I am selecting you because you have either already participated in long-term study abroad program, or you will be participating in one soon.

Michigan College students are ideal for this type of research, as there are a variety of study abroad programs from which students may select. Some of the characteristics I will be studying include the type of living situation (host family, dorm), language level (if applicable), and the opportunity to participate in an organized activities in the local community. Because it will be important to combine the survey results with the information from the study abroad application (such as reported level of language, previous experience abroad, and study abroad program), participants will be required to sign-in to use the survey with their student address. Once the additional data have been combined with the survey results, all personal identifiers will be removed. All data will be stored off-campus in an external hard drive.

The findings in this study may benefit students by providing a better understanding of the experience of study abroad and provide insight on how to better advise students to understand a study abroad experience. In addition, I have the opportunity to participate in educational research that may serve to better inform those who work in the field of international education.

A link to this web-based survey is below. Your user name will be your student email address. The email will include a password. The first screen you view will be a consent form to participate in this study. By clicking the "I accept", you will be giving consent to participate in the research study. The survey should take you approximately 30 minutes to complete. The survey asks questions about your priorities and choices in regards to academic decisions and your personal identity and social life. Some of the questions are about health and lifestyle choices. Your replies will be kept confidential.

As a thank-you for your time during a very busy time of year, I will deliver exam week "goodie bags" which will include some sweet and salty snacks and small items with the "K" logo. Participants who complete the survey will also be invited to a catered lunch from Jimmy John's. For those of you interested in receiving a copy of the summarized results, a report should be available in the fall of 2008. You may contact me to receive a copy of the report.
Thank you in advance for your assistance. If you have any questions or concerns, please me at 269-337-7133 or mwieden@kzoo.edu. You may also contact my dissertation chair, Dr. Andrea Beach at Western Michigan University (269-387-1725) or andrea.beach@wmich.edu.

To participate in the survey, please go to: http://sdtla.appstate.edu/kalamazoo/

On the right side of the page you will see a "Log In" box. Enter the following "Username" and "Password":

Username : xxxxxxx
Password : xxxxxxxx

If successful, the log in box should say "Hello kxxxxx". You may now click on the "SDTLA Survey" link on the top right of the page.

If you must leave in the middle of the survey, the site will remember where you left off. You may log-in and complete the SDTLA later.

For more information on the SDTLA, please visit http://sdtla.appstate.edu