

**CREATING THE GLOBAL STUDENT: INCREASING STUDENT PERCEPTION OF
GLOBAL COMPETENCY AND SKILLS FOR INTERNATIONAL CAREERS IN A
UNIVERSITY INTERNATIONAL CERTIFICATE PROGRAM**

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This study investigates the impact of students' participation in the certificate program offered by the Asian Studies Center (ASC) at the University of Pittsburgh on their perception of global competency and skills development for international careers. Undergraduate and graduate students who were enrolled in the ASC's certificate program as of March 16, 2012 (n=125) participated in an on-line student survey. Data are used to provide a descriptive analysis, significance tests, and a multiple regression analysis that examine six research questions.

The descriptive analysis explores students' characteristics, satisfaction with the certificate program, international experience, foreign language capability, and the extent to which the certificate program increases their global competency and skills for international careers. Tests were conducted to examine whether the differences in pre-post increases in students' perception of their global competency and skills development for international careers were statistically significant for all respondents as well as between disaggregated groups. The multiple regression analysis tests the correlation between three independent variables (courses taken in the certificate program, center activity participation, and students' international experience) and each of the two dependent variables (students' perception of increased global competency and students' perception of improved skills for international careers).

Findings show that significantly different changes in students' perception of their global competency and skills development for international careers exist before their participation in the

certificate program and after their participation in the certificate program. Students who stayed 1-6 months in an Asian country have the most significant increases in their perception of their global competency after their participation in the certificate program. Senior students have the most significant increases in their perception of their global competency and skills for international careers after their participation in the certificate program.

Students' international experience and courses taken in the certificate program are important variables related to their perception of increased global competency and improved skill for international careers. The effect of students' international experience is greater than courses taken in the certificate program on their perception of their increased global competency and improved skills for international careers.

TABLE OF CONTENTS

PREFACE.....	XV
1.0 INTRODUCTION.....	1
1.1 CONTEXT.....	1
1.2 AREA STUDIES CENTERS/PROGRAMS IN THE U.S. HIGHER EDUCATION INSTITUTIONS.....	2
1.3 THE DEVELOPMENT OF ASIAN STUDIES CENTERS IN THE U.S.	5
1.4 RESEARCH QUESTIONS.....	7
1.5 DEFINITION OF TERMS	9
1.6 LIMITATIONS OF THE STUDY	10
1.7 SIGNIFICANCE OF THE STUDY	11
1.8 ORGANZATION OF THE DISSERTATION	11
2.0 THEORETICAL FRAMEWORK.....	13
2.1 GLOBALIZATION THEORY.....	13
2.1.1 Economic Globalization	15
2.1.2 Political Globalization	17
2.1.3 Cultural Globalization	19
2.1.4 Globalization and Education	20
2.2 HUMAN CAPITAL THEORY	23

2.2.1	Human Capital and Global Economy.....	24
2.2.2	Demand for Language Skills and Area Expertise in the U.S.....	25
2.2.3	Human Capital and Participation in the ASC’s Certificate Program.....	26
2.3	SUMMARY	27
3.0	LITERATURE REVIEW.....	30
3.1	INTRODUCTION	30
3.2	AREA STUDIES IN THE UNITED STATES	31
3.2.1	The Historical Evolution of Area Studies in the U.S.....	31
3.2.2	Major Funding Support.....	33
3.2.3	Area studies in the Age of Globalization	39
3.3	THE IMPACT OF AREA STUDIES CENTERS/PROGRAMS	41
3.3.1	The Impact of Area Studies Centers/Programs on Students’ Global Competency	42
3.3.2	The Impact of Area Studies Centers/Programs on Skills Development for International Careers.....	50
3.3.3	Summary	55
4.0	RESEARCH METHODS	57
4.1	RESEARCH QUESTIONS.....	57
4.2	SURVEY RESEARCH METHODS	59
4.2.1	Survey Research Methods.....	59
4.2.2	On-line Surveys.....	60
4.2.3	CEAC-developed Survey Instrument	62
4.2.4	Research Procedures	64

4.2.5	Summary	72
5.0	DATA ANALYSIS	75
5.1	REPRESENTATIVENESS OF THE SAMPLING	75
5.2	RELIABILITY.....	78
5.3	RESEARCH RESULTS FROM 2012 COHORT.....	79
5.3.1	Students' Characteristics and Demographic Information.....	79
5.3.2	Students' Satisfaction with the Certificate Program.....	82
5.3.3	Students' International Experience	85
5.3.4	Students' Foreign Language Capability.....	86
5.3.5	The Impact of Participation in the Certificate Program on Students' Perception of Their Global Competency	87
5.3.6	The Impact of Participation in the Certificate Program on Students' Perceptions of Their Skills Development for International Careers.....	92
5.4	PAIRED T-TESTS.....	96
5.5	COMPARISON OF 2012 COHORT TO 2009 COHORT.....	99
5.5.1	Students' Characteristics and Demographic Information.....	99
5.5.2	Students' Satisfaction with the Certificate Program.....	102
5.5.3	Students' International Experience	104
5.5.4	Students' Foreign Language Capability.....	105
5.5.5	The Impact of Participation in the Certificate Program on Students' Perception of Their Global Competency	108
5.5.6	The Impact of Participation in the Certificate Program on Students' Perceptions of Their Skills Development for International Careers.....	110

5.5.7	Summary	112
5.6	DISAGGREGATED FINDINGS BETWEEN GROUPS OF 2012 DATA	114
5.6.1	Degrees Students Were Pursuing.....	116
5.6.2	Credit Completion Status	116
5.6.3	Gender	118
5.6.4	Race.....	119
5.6.5	Single Longest Duration Students Stayed in an Asian Country	119
5.6.6	Foreign Language Ability	121
5.7	MULTIPLE REGRESSION ANALYSIS OF 2012 DATA.....	121
5.7.1	Perceived Increased Global Competency	122
5.7.2	Perceived Improved Skills for International Careers	125
6.0	DISCUSSION, RECOMMENDATIONS AND CONCLUSION.....	128
6.1	OVERVIEW OF THE STUDY	128
6.2	DISCUSSION OF FINDINGS.....	130
6.2.1	Research Question One: What Are the Characteristics of the Sample of Students Enrolled in the ASC's Certificate Program?	130
6.2.2	Research Question Two: What is Students' Satisfaction with the ASC's Certificate Program?	132
6.2.3	Research Question Three: What International Experience Do ASC Students Have?	134
6.2.4	Research Question Four: What Foreign Language Capability Do ASC Students Have?	136

6.2.5	Research Question Five: How Does College Students' Participation in the ASC's Certificate Program Impact Their Perception of Global Competency?.	137
6.2.6	Research Question Six: How Does College Students' Participation in the ASC's Certificate Program Impact Their Perception of Skills Development for International Careers?.....	139
6.3	IMPLICATIONS OF THE STUDY.....	140
6.3.1	Implications for Faculty International Experience	140
6.3.2	Implications for Student International Experience.....	142
6.3.3	Implications for Senior Students' Career Preparation.....	144
6.3.4	Implications of Comparison between 2009 Data and 2012 Data.....	145
6.3.5	Recommendations for Future Research	149
6.4	CONCLUSION	151
	APPENDIX A	152
	APPENDIX B	154
	APPENDIX C	160
	BIBLIOGRAPHY	161

LIST OF TABLES

Table 1. Current School/College in Which Students were Enrolled	81
Table 2. Students' Rating of Courses Offered in the Certificate Program	83
Table 3. Center Activities Students Have Attended	84
Table 4. Students' International Experience during Their Time at the Certificate Program	85
Table 5. Students' Perception of Global Competency Before and After Participation in the Certificate Program.....	89
Table 6. Percentage of Students Who Rated Aspects of Global Competency as "Competent" or "Very Competent" Before and After Participation in the Certificate Program	91
Table 7. Students' Perception of Knowledge and Skills for International Careers Before and After Participation in the Certificate Program	93
Table 8. Percentage of Students Who "Agreed" or "Strongly Agreed" Their Skills for International Careers Before and After Participation in the Certificate Program.....	95
Table 9. Students' Plan to Pursue an International Job Before and After Participation in the Certificate Program.....	96
Table 10. <i>t</i> -test Results Comparing Pre-tests and Post-tests on Students' Perception of Global Competency	97

Table 11. <i>t</i> -test Results Comparing Pre-tests and Post-tests on Students' Perception of Skills for International Careers	98
Table 12. Comparison of Data regarding Current School/College.....	100
Table 13. Comparison Data regarding Degree Program Students were Pursuing	101
Table 14. Comparison Data regarding Gender	101
Table 15. Comparison Data regarding Race	101
Table 16. Comparison Data regarding Courses Offered in the Certificate Program	103
Table 17. Comparison Data regarding Center Activities Students Have Attended.....	104
Table 18. Comparison Data regarding Students' International Experience	105
Table 19. Comparison Data regarding Student Perception of International Experience.....	105
Table 20. Comparison Data regarding Students' Foreign Language Background	106
Table 21. Comparison Data regarding Students' Foreign Language Ability	106
Table 22. Comparison Data regarding the Helpfulness of the Certificate Program	107
Table 23. Comparison Data regarding Highest Level of Foreign Language Courses	107
Table 24. Comparison Data regarding Helpfulness of Other Language in Jobs	108
Table 25. Comparison of Percentage of Students who Increased Their Ratings of Global Competency as "Competent" or "Very Competent" on Post Assessments	109
Table 26. Comparison of Cumulative Frequency Percentage of the Top Two Ratings in Students' Skills for International Careers after Participation in the Program.....	111
Table 27. Comparison Data regarding Students' Plan to Pursue an International Job before and after Participation.....	112
Table 28. Regression Analysis Summary for Predicting Perceived Increased Global Competency	124

Table 29. Regression Analysis Summary for Predicting Perceived Improved Skills for
International Careers 127

LIST OF FIGURES

Figure 1. Theoretical Framework of Students' Participation in the ASC's Certificate Program .	28
Figure 2. Survey Responses	65
Figure 3. Connection between Research Questions and Survey Instrument	70
Figure 4. Distribution of Degree Students Were Pursuing	76
Figure 5. Distribution of Students' Current School/College	77
Figure 6. Groups Categorized by Students' Characteristics	115
Figure 7. Plot of Means by Test and Credit Completion Status in Perceived Global Competency	117
Figure 8. Plot of Means by Test and Credit Completion Status in Perceived Skills Development for International Careers	118
Figure 9. Plot of Means by Test and Single Longest Duration in an Asian Country in Perceived Global Competency	120

PREFACE

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1.0 INTRODUCTION

1.1 CONTEXT

Compared with many other nations, the United States is far from adequate in providing students with opportunities to develop proficiency in foreign languages and cultures (Hamayan, 1986; Schultz, 2001). The lack of proficiency in foreign languages and cultures is evident at both K-12 education and higher education levels. The U.S. education system provides a small number of long-sequence K-12 language programs designed to train students in the linguistic and cultural skills essential to communicate successfully in the U.S. and abroad (Rhodes & Pufahl, 2009). The lack of continuity in foreign language learning between many secondary schools and colleges reflects the current patterns of foreign language learning at the higher education level. There are also too few students enrolled in foreign language courses at colleges and universities and too little foreign language study opportunities sufficient for most students to develop the level of fluency needed for communication (Jackson & Malone, 2009).

Similarly, many U.S. students appear to know less about the beliefs, cultures, and history of other countries than their foreign counterparts (O'Connell & Norwood, 2007). The general lack of knowledge and understanding of other parts of the world is an impediment to U.S. continued leadership in the world community. In 2001, President George W. Bush encouraged young people to participate in activities that increase their knowledge of global issues,

languages, history, geography, literature, and the arts of other countries (Committee for Economic Development, 2006).

The drive for proficiency in foreign languages and knowledge of other countries has motivated the development of international education programs that focus on foreign languages and area studies. Federal government funded area studies centers in higher education institutions represent effective approaches to producing professionals with foreign language and area expertise.

1.2 AREA STUDIES CENTERS/PROGRAMS IN THE U.S. HIGHER EDUCATION INSTITUTIONS

Area studies is reported by Szanton (2003) as “a cover term for a family of academic fields and activities joined by a common commitment to: (1) intensive language study; (2) in-depth field research in the local language(s); (3) close attention to local histories, viewpoints, materials, and interpretations; (4) testing, elaborating, critiquing, or developing grounded theory against detailed observation; and (5) multi-disciplinary conversations often crossing the boundaries of the social sciences and humanities” (p. 4). Szanton’s definition of area studies emphasizes a multidisciplinary nature of area studies involving research and scholarship in the fields of social sciences and humanities to provide a comprehensive analysis and interpretation of language, culture, and history of another society. In addition, Lambert (1990) reported that most Americans focus their studies on one or more countries in Latin America, Eastern Europe, the Middle East, Africa, South and Southeast Asia, and East Asia.

Area studies centers/program and area studies departments, represent two major forms of area studies institutionalized in the U.S. higher education system. According to Szanton (2003), area studies centers/programs, when contrasted with area studies departments, do not normally award degrees; however a variety of center activities bring about intellectual development for both new and established scholars who are interested in a particular country or region. By collaborating with faculty and graduate students from various disciplines (e.g., social sciences, the humanities, and professional schools), area studies centers are able to support activities, ranging from multi-disciplinary lecture series, workshops, research, and conferences, to advanced language courses and public outreach activities (Szanton, 2003).

The Nature of Area Studies Centers

The multidisciplinary nature of area studies centers involving research and scholarship in different disciplines is an important avenue of collaboration in strengthening the area studies field. Hall and Tarrow (1998) pointed out that the interdisciplinary exchange that brings together interested scholars focusing on a particular region of the world reinforces the value of area studies centers. Based on their perspective, much of the most influential work in the social sciences is attributable to interdisciplinary exchange through which scholars obtain information beneficial to their work. Area studies centers are much needed to break down the control of the already existing disciplinary-based departments over the organization of knowledge and teaching. Furthermore, interdisciplinary exchange builds a bridge to intellectual contacts between students, faculty members and foreign visitors recruited by the centers. The roles that foreign scholars play are crucial in that they often provide their American counterparts with insights about other parts of the world and inform them of diverse research agendas and approaches being developed elsewhere (Hall & Tarrow, 1998).

In addition to various activities, area studies centers provide programs that pave the path to the expansion of knowledge of foreign languages and international societies in U.S. higher education. It is noteworthy that study abroad programs funded through Title VI grants are effective approaches to training area studies scholars who in return often make tremendous contributions to the area studies education in the United States. Many U.S. students traditionally have a strong inclination to studying abroad in English-spoken European countries, while countries in which English is not spoken as a mother tongue are often under-targeted. Title VI funding plays a significant part in expanding the number of study abroad programs, especially in non-traditional and under-targeted areas of the world (U.S. Department of Education Office of Postsecondary Education, 2011).

Study abroad programs – particularly in the non-Western world including most of Africa, Asia, and Latin America – benefit Title VI funded area studies centers in various ways. For instance, area studies centers are able to strengthen topical course offerings across the curriculum, develop innovative curricula that emphasize experiential learning, offer internships and service learning opportunities, increase competency in non-European languages, expand the number of students completing requirements for certificates, broaden collaboration with disciplines and professional schools that have not traditionally been included in area studies, intensify linkages with foreign host institutions, and gain support from Asian, African, and Latin American heritage communities throughout the U.S. (U.S. Department of Education Office of Postsecondary Education, 2011).

In general, area studies centers – even though they normally do not award degrees – are important contributors of enhanced knowledge of foreign languages and areas in which these languages are spoken. Through their cooperation with various disciplines situated within U.S.

universities or abroad, area studies centers are able to not only design a variety of center activities, but also broaden their influences upon the involved disciplines drawing on center resources. It is important to note that study abroad programs, particularly in currently non-traditional destination areas of the world, serve as a catalyst to strengthen the study of areas that are not traditional foci of most U.S. students and consequently increase the number of area specialists in these non-traditional areas.

1.3 THE DEVELOPMENT OF ASIAN STUDIES CENTERS IN THE U.S.

Ellings and Hathaway (2010) recognized the importance of understanding Asian languages and cultures as the opportunities and challenges associated with Asia grab many of the U.S.'s greatest interests overseas. They cited Asia's rising power in economics and politics, growth in regional organization, and impact on the national security and non-traditional security as stimulus for deep knowledge of the region.

Ellings and Hathaway gave brief historical contexts for understanding the promotion of Asian studies in the U.S. They noted that this promotion process in the U.S. started in the 1900s when several universities, such as Columbia University, University of Washington, University of Chicago, and Princeton University, founded Asian studies departments. In the 1920s and 1930s, area studies programs were initiated in many U.S. universities and Asian studies at the same time gained considerable attention to respond to national security issues, especially following World War II.

It is important to note the significant role the Association for Asian Studies (AAS) has played in the development of Asian studies centers across the nation. The first "area"

organization in the United States was founded in 1943 as the Far Eastern Association and later reorganized as the AAS in 1956 (Cumings, 1997). Yang (2010) described the AAS as a scholarly, non-political, and non-profit professional association open to all persons interested in Asia. AAS has expanded over the last five decades into a learned society that emphasizes the study of all Asia and supports all academic disciplinary and interdisciplinary approaches to Asian studies. The AAS has been recognized as the largest organization of its kind with nearly 7,000 members worldwide.

Area studies programs rely heavily on support from private foundations and government agencies (Goss & Wesley-Smith, 2010). Ellings and Hathaway (2010) asserted the integral role of private foundations in supporting Asian studies, citing the Luce Foundation, Rockefeller Foundation, and Ford Foundation as significant funding agencies. In the 1930s the Luce Foundation piloted funding to promote Asian studies. In 1952, the president of the Rockefeller Foundation, Dean Rusk, emphasized the significant role of the foundation in promoting Asian studies. Between 1959 and 1973, Ford Foundation funding contributed substantially to the development of Asian studies centers. In addition, the passage of the national Title VI program benefited Asian studies centers with its special focus on less-commonly taught languages. As described by Ellings and Hathaway, “the act supported language area centers for expanding postsecondary language education and related subjects” (p. 5). Title VI funding enabled the development of Asian studies centers in many universities over the past half century.

As Asia plays an increasingly important role in the global economy, politics, and culture, the field of Asian studies in the 21st century is “entering a new growth spurt” (Yang, 2010, p. 22). Yang indicated that the growing interests in Asia result in steadily increasing Asian studies majors at the undergraduate and graduate levels, greater popularity of classes on contemporary

Asia, and special efforts of professional schools (especially in business and law schools) in nurturing 21st century students by developing programs with a particular focus on Asian studies. Flourishing as well during this period are the general development and expansion of Asian studies centers. In the last few decades, Asian studies centers are springing up on many university campuses across the nation. The latest data from the AAS show that 215 universities located in 49 states have established Asian studies programs and centers (Association for Asian Studies, undated).

Asian studies centers in U.S. higher education institutions often play a significant part in promoting enhanced knowledge of Asian languages, culture, and societies. As Asian studies centers continue to evolve in the coming decades, the U.S. will strengthen its capacity to train the next generations of Asia specialists. Facing Asia's ascendance on the world stage, the U.S. will be better prepared to build sustainable ties with Asian countries in economics, politics, health, natural environment, or cultural exchange when equipped with an adequate understanding of the region.

1.4 RESEARCH QUESTIONS

The University of Pittsburgh Asian Studies Center (ASC),¹ an internationally recognized area studies center, mirrors a typical model of creating American professionals who are better able to demonstrate proficiency in Asian languages and area expertise. In this dissertation, I use the ASC as a case study to explore the following research questions:

¹ ASC was designed as an interdisciplinary international program. Students have disciplinary majors in the university's departments and schools and they earn a certificate in the ASC. So ASC awards certificate attainment rather than degrees.

1. What are the characteristics of the sample of students enrolled in the ASC's certificate program?
2. What is students' satisfaction with the ASC's certificate program?
3. What international experience do ASC students have?
4. What foreign language capability do ASC students have?
5. How does college students' participation in the ASC's certificate program impact their perception of global competency?
 - a. How do ASC certificate program courses impact students' perception of global competency?
 - b. How does ASC activities participation impact students' perception of global competency?
 - c. How does students' international experience impact their perception of global competency?
6. How does college students' participation in the ASC's certificate program impact their perception of skills development for international careers?
 - a. How do ASC certificate program courses impact students' perception of skills development for international careers?
 - b. How does ASC activities participation impact students' perception of skills development for international careers?
 - c. How does students' international experience impact their perception of skills development for international careers?

It is important to note that the last two research questions are created on the basis of the hypotheses that area study centers play crucial roles in developing globally competent students (O'Connell & Norwood, 2007) and preparing students for international careers (U.S. Department of Education Office of Postsecondary Education, 2011). Hence, this study will test these hypotheses and offer findings to address the research questions.

1.5 DEFINITION OF TERMS

Terms explored in this study include *area studies*, *area studies centers*, *global competency*, and *skills for international careers*. These terms are at the heart of the six research questions of this study; hence explanation of these terms is an important prerequisite for understanding the survey instrument and findings. The purpose of this section is to give definitions of these terms synthesized from an extensive literature review.

Area studies: Area studies are defined as an interpretation of language, culture, and history of another society through a multidisciplinary lens. Area studies are mainly focused on the following global regions: Latin America, Eastern Europe, the Middle East, Africa, South and Southeast Asia, and East Asia.

Area studies centers: The area studies center is one of two different types of area studies institutionalized in the U.S. higher education system. In many cases, area studies centers, instead of awarding degrees, provide activities through collaboration across different disciplines such as the social sciences, the humanities, and professional schools.

Global competency: Global competency is synthesized into five common components: (1) understanding of world history and international affairs, (2) foreign language proficiency, (3) awareness of cross-cultural difference, (4) open attitude toward people of different culture, and (5) competitive skills to perform in international tasks.

Skills for international careers: Skills for international careers are summarized in the following four major points: (1) knowledge of international affairs, (2) foreign language proficiency, (3) cross-cultural skills, and (4) cognitive skills. In particular, cognitive skills constitute skills in critical thinking, creativity, problem-solving, communication, and teamwork.

1.6 LIMITATIONS OF THE STUDY

The limitations of the study are fourfold. First, this study targets undergraduate and graduate students enrolled in the ASC certificate program at one institution, which may present a threat to external validity (the ASC at the University of Pittsburgh may not be representative of Asian studies centers in other U.S. higher education institutions). Therefore, findings obtained from undergraduate and graduate students in this particular institution may not be generalizable to a population of undergraduate and graduate students in other institutions.

The other three limitations to this study relate to the research methods. First, the participants are not randomly selected. This study targets the entire population of students enrolled in the ASC's certificate program as of March 16, 2012. Students who completed the survey fall into the sample of the study. Second, the on-line student survey used to collect data contains mostly close-ended questions and is more difficult to gather in-depth information compared to in-depth interviews or focus group interviews (The Health Communication Unit, 1999). Third, findings drawn from a single group (e.g., students enrolled in the ASC's certificate program) are sometimes viewed as a limitation to the study. Gaining perspectives from a wider range of stakeholders is another venue through which I not only obtain additional findings, but also test the consistency of the findings. Program administrators and faculty members, for example, could be important stakeholders sharing their viewpoints of the impact of students' participation in the ASC's certificate program on their perception of their global competency and skills development for international careers.

1.7 SIGNIFICANCE OF THE STUDY

There is a limited amount of research on the impact of area studies centers on students' perception of their global competency and skills development for international careers. In this regard, findings of this study add to the literature in the field of area studies, with a special emphasis on the impact of area studies centers on students' global competency and skills development for international careers. In addition, this study serves to evaluate the effectiveness of an area study center within a higher education context. Other international education programs with similar missions might gain insights from the ASC at the University of Pittsburgh, increasing their program capacity and allowing them to educate competent students who are ready to participate in a globalized world.

1.8 ORGANIZATION OF THE DISSERTATION

This dissertation is organized into six chapters. Following the Introduction in Chapter 1, I explain my theoretical framework using globalization theory and human capital theory in attempts to offer a comprehensive set of explanations of college students' motivation for participating in area studies centers. Chapter 3 includes literature focusing on area studies in the United States, and the impact of area studies centers on developing students' global competency and skills for international careers. Chapter 4 outlines the research methods used, including sections on illuminating research questions, research approaches, and research procedures involved to investigate the guiding research questions.

Chapter 5 places emphasis on data analysis, which is comprised of seven subsections. I make an effort to test the representativeness of the sampling in two characteristics (degree students were pursuing and students' current school/college), internal consistency of the survey instrument, and significant difference in changes prior to and after students' participation in the certificate program. Findings gleaned from the 2012 cohort are presented and compared with those from the 2009 cohort. Disaggregated findings by students' characteristics—such as the degree students are pursuing, credit completion status, gender, race, single longest duration students stayed in an Asian country, and foreign language ability—are attempts to test whether there are statistically significant differences in pre-post changes in students' perceptions of their global competency and skills development for international careers between groups. Finally, I create a multiple regression model to determine whether courses taken in the certificate program, center activity participation, and students' international experience predict their perception of increased global competency and improved skills for international careers. Chapter 6 offers a discussion of notable findings, implications for area studies centers to nurture globally competent students for international careers, and recommendations for future research.

2.0 THEORETICAL FRAMEWORK

The theoretical framework that guides this study is globalization theory and human capital theory. The stimulus for college students' participation in the ASC's certificate program can be analyzed and interpreted from these two theoretical perspectives. In other words, globalization theory and human capital theory serve to contextualize college students' motivations for participating in the ASC's certificate program.

2.1 GLOBALIZATION THEORY

It was during the early or the middle 1980s when the term *globalization* was recognized as a significant concept, although its widespread use did not develop until the 1990s (Robertson, 1992). Robertson (1992) notes that “globalization as a concept refers to both the compression of the world and the intensification of consciousness of the world as a whole” (p. 8). This concept denotes the interconnectedness of the world and the accelerated awareness that the world is a single entity. Globalization has proceeded with a renewed focus on international development in the 1990s when the term *modernization* became inextricably linked to the discussion of the globalization concept. Although conceived in much broader terms by theorists in the 1990s, the term globalization aligns well with the notion of a strengthened global interdependence and accelerated sense of the global whole (Robertson, 1992). Robertson's definition of globalization

points out the quintessence of the concept that often emphasizes the increased interdependence of people, institutions, and nation-states all around the world.

Globalization takes many different forms and meanings (Wiarda, 2007). Theorists define globalization in a number of different ways and therefore its definition is multifaceted and multidimensional (Al-Rodhan, 2006; Waters, 1995; Wiarda, 2007).

Torres (2002) summarized globalization as “the product of the emergence of a global economy, expansion of transnational linkages between economic units creating new forms of collective decision making, intensification of transnational communications, and the creation of new regional and military order” (p. 364). This definition implies that social, financial, cultural, and military intensification among the nation-states shrinks international boundaries and results in a single global entity.

Waters (1995) defined globalization as “a social process in which the constraints of geography on social and cultural arrangements recede and in which people become increasingly aware that they are receding” (p. 3). Recognizing the independence of people and institutions in the world, Waters detailed the multidimensionality of interdependency. Consistent with the viewpoints of early social theorists such as Max Weber and Talcott Parsons, Waters’ view of globalization centered around three different aspects of social life: the economy, the polity, and the culture, while focusing most heavily on the culture (Anderson, 2001).

Similarly, Wiarda (2007) asserted that “globalization means we are all part of a steadily shrinking and interdependent world” (p. 3). Wiarda further argues that globalization encompasses various dimensions, including five factors: economy, politics, military, culture, and technology. Reyes (2001) emphasized that globalization as a phenomenon implies an unprecedented growing scale of integration among different regions and nation-states in the

world as it relates to finances, trade, and communications. Reyes (2001) summarized economic, political, technological, and cultural ties as crucial elements of the theory of globalization, emphasizing that cultural and economic factors are the most influential aspects in every society. In this sense, economic and cultural aspects appear to dominate the focus of the discussion of globalization.

The principal characteristics of globalization summarized by different globalization theorists provide an integrated theoretical framework or rationale for participating in area studies centers. Notably, economic, political, and cultural elements of globalization theories appear to be the center of analysis. The increasingly interdependent global economy—coupled with emerging global politics and global culture intrinsically linked to a global economy—explain the incentives for participating in area studies centers.

2.1.1 Economic Globalization

The economic aspect of globalization is often viewed most prevalently, and as a relatively recent occurrence (Anderson, 2001). Gao (2000) stressed that economic globalization is an inevitable trend as a consequence of a greater level of cross-boundary businesses, mobility of international capital, and rapid advancement of technologies. The fast spread of marketization throughout the world, the advancement of information and technologies, and the growing cross-border division of labor, drive the economies of different countries to become more integrated than ever before (Gao, 2000).

In his book *Lexus and Olive Tree*, Friedman (2000) defined globalization as:

The inexorable integration of markets, nation-states and technologies to a degree never witnessed before – in a way that is enabling individuals,

corporations and nation-states to reach around the world farther, faster, deeper and cheaper than ever before, and in a way that is enabling the world to reach into individuals, corporations and nation-states farther, faster, deeper, cheaper than ever before. (p. 8)

Friedman (2000) echoed globalization as mainly the growing interdependence of world economies, addressing that the increased flow of international capital and technological advancement paved the way for integration of a global market. Notably, Friedman placed stronger emphasis on the economic value of globalization and identified free-market capitalism as a driving idea behind globalization. Friedman agreed that disseminating the concept of free-market capitalism to nearly every country in the world is a primary manifestation of globalization, and that opening a country's economy to free trade and markets enables it to be competitive if it aims to attract foreign investment.

Friedman's viewpoints on free-market capitalism across national borders coincide well with the concept of capitalist globalization brought by Sklair. In her book *Globalization: Capitalism and Its Alternatives*, Sklair (2002) attributed capitalist globalization to "the rise of transnational corporations, the rapid spread of free trade, the oft-cited weakening of states and governments, the penetration of mass media to all corners of the globe, and the denationalization and privatization of former state monopolies" (p. 4). The declining power of nation-states to monopolize their economies, nation-states' openness to free trade, the burgeoning of transnational corporations, and the pervasive mass media because of advances in information and communication technologies are important contributors of capitalist globalization.

Furthermore, major transnational corporations were regarded as the most influential globalizing entities and as a result a capitalist global system is the most powerful actor in the

global system (Sklair, 2001). The owners of major transnational corporations, addressed by Sklair as *transnational capitalists*, dominated the interests of the capitalist global system and are the single driving force of capitalist globalization (Sklair, 2002). Under this circumstance, transnational corporations function as indispensable avenues through which the transnational capitalists, the dominant class, can obtain their material basis (Sklair, 2001).

2.1.2 Political Globalization

In addition to stressing their predominant status in transnational economic practices, Sklair (2001) regarded *transnational capitalists* as “the major locus of transnational political practices” (p. 8) and posited, “the most notable feature of transnational political practices in the last decades of the twentieth century was the tremendous upsurge in redemocratization or the transition to democracy in previously authoritarian states” (p. 154). In this sense, *transnational capitalists* are also playing an active role on the world’s political stage, with their efforts to transmit democratic political systems to developing nations. Through engagement in these types of political practices, transnational corporations, on the one hand, ensure their influential roles in developing nations, and on the other hand best serve their economic interests. Sklair’s viewpoints on transnational political practices in the era of capitalist globalization bring attention to the intricate relationship between capitalism and political culture around the globe.

Li, Winther, and Sorensen (2009) described a global economic system with a vertical order of capitalism and a horizontal order of political democracy. The capitalist political order “must serve the economic order on which the hegemony of the dominant classes is based” (p. 12). Thus, political democracy provides the infrastructure through which the dominant *transnational capitalists* can achieve their economic goals.

Furthermore, Li and Clark (2009) discussed the connection between a free market economy and liberal democracy after the end of the Cold War. They critiqued the neo-classical economics paradigm in which a free market economic system entails a common liberal democratic political culture. They argued that free markets and liberal democracy, as a triumph of developed nations, such as the United States and the United Kingdom, impose this dominant paradigm upon developing nations. In this paradigm, the interests of dominant capitalists are served at the expense of the interests of subordinate classes. Democratic practices are not implemented if the interests of dominant classes of developed nations are challenged, as market power often defines political power. The ideology of free market and liberal democracy is therefore not a universal political-economic model, as the dominant capitalists mainly enjoy economic and political freedom (Li & Clark, 2009).

Similarly, Ikenberry (2007) reemphasized Li and Clark's position on the hegemonic status of dominant economic classes in the context of a free market economy. He recognized that the global power structure and global world economy are intertwined, indicating a postwar American hegemonic system as the political foundation to manage an open world economy. Ikenberry saw American hegemony as an important force tying major democracies together and promoting liberal democracy around the world. The United States took leadership in creating liberal multilateral rules, free markets, democratic communities, and regional partnerships in the postwar era.

American political hegemony reinforced the stability and openness of the world economy. Economic openness and integration would help the U.S. fulfill its international goal of moving developing nations toward liberal democracy (Ikenberry, 2007). Ikenberry expressed his concern over the rationalization of American hegemony as globalization. If American hegemony

rejects an international order, it may be a threat to sustainable globalization, “the global array of actors such as states, firms, groups, and individuals who have a vested interest in a stable and open world economy is massive and still growing” (p. 58).

2.1.3 Cultural Globalization

Cultural globalization refers to the process of how culture flows across the globe (Kumaravadivelu, 2008). Increasing processes of global connectivity enable foreign cultures to penetrate local communities and for cultural boundaries between nation-states to blur. Drawing from different groups of globalization theorists, Kumaravadivelu’s synthesis boils down to three themes in cultural globalization: cultural homogenization (Americanization), cultural heterogenization (localization), and cultural *glocalization* (both homogenization and heterogenization).

According to Kumaravadivelu (2008), cultural homogenization is Americanization forcing nations into one homogeneous global culture. Wiarda held a similar view that American culture was at the heart of a global culture. Wiarda (2007) asserted American culture to be an extremely powerful globalizing force, especially considering that the English language is learned in almost all corners of the world, while Americans generally learn far less foreign languages. Wiarda’s concern over opposition to Americanization points to Kumaravadivelu’s second theme of cultural globalization: cultural heterogenization.

Kumaravadivelu (2008) asserted that in cultural heterogenization locals dismiss the preeminence of American culture, revitalizing local culture and identities in response to the perceived threat of the imposition of a global culture. Cultural heterogenization resists the idea of “a single unified global culture” (p. 44) and makes tremendous efforts to strengthen local

identities. However, although localizers are reluctant to accept Western cultural beliefs, they are quick to accept Western consumer goods. They argue that a spread of cultural fads from the West does not necessarily mean cultural domination by the West (Kumaravadivelu, 2008).

Lastly, Kumaravadivelu explained cultural *glocalization* as the global becoming localized and the local becoming globalized. Cultural *glocalization* combines globalization and localization. The global elements are incorporated into the local and the local is modified to accommodate the global (Kumaravadivelu, 2008). In this sense, cultural *glocalization* might alleviate or even resolve the tension between cultural homogenization and cultural heterogenization. One successful example cited by Kumaravadivelu was McDonald's chain stores in many Middle Eastern countries where American fast food is tailored to meet local religious, cultural and ethnic demands. In cultural *glocalization*, foreign culture is not imposed at the expense of local culture; instead, there exists recognition that distinctive cultural identities play roles in the global system.

2.1.4 Globalization and Education

A more globally connected world poses challenges to education. Hugonnier (2007) synthesized five educational challenges in terms of economy, culture, social cohesion, issues becoming global, and internationalization of higher education. Driven by these challenges, educational policy makers and practitioners need to work toward policies and practices to help individuals overcome difficulty relating to globalization.

Hugonnier (2007) pointed out that enhanced competition among nations resulting from accelerated world economies require schools to teach updated knowledge and skills, and produce lifelong learners. Given growing cultural exchange between nations and greater social

heterogeneity, he suggested that individuals develop values such as tolerance, cooperation, and solidarity, and learn more foreign languages and cultures. In addition, Hugonnier suggested that schools shoulder the responsibility of raising consciousness for world citizenship when issues, such as protection of the environment, poverty reduction, and terrorism, are becoming global concerns. The internationalization of higher education is directly linked to globalization and is considered a prerequisite for world economic integration and cross-border mobility of workers. Developing nations' efforts in working toward the democratization of higher education are of great importance in order to establish a robust higher education system (Hugonnier, 2007)

Hugonnier's views on the significant role of education in the era of globalization support individuals' participation in an international area studies program. Moreover, the economic, political and cultural aspects of globalization theory described above provide contextual understanding of and implications for educational practices, such as a foreign language study and area studies programs.

Hugonnier's views on the significant role of education are consistent with Sklair's theory of economic globalization. As stated in the previous section, capitalist economy is an important feature of economic globalization. Since *transnational capitalists* sometimes obtain their material basis from transnational corporations (Sklair, 2001), these Western-oriented corporations seek to replace relatively expensive workers in the domestic market with cheaper labor from developing nations (Neubauer, 2007). Outsourcing is a primary means for *transnational capitalists* to promote their economic interests. In this case, an integrated world economy creates borderless competition, demanding that individuals invest in updated knowledge and skills to increase their competencies in a competitive global market.

Furthermore, Hugonnier suggested that individuals need to develop values such as tolerance, cooperation and solidarity and nurture the consciousness of world citizenship. This is different than cultural homogenization (Americanization) and cultural heterogenization (localization), but similar to cultural glocalization (Kumaravadivelu, 2008). Hugonnier explains that globalization does not necessarily advance homogeneity of society at the expense of local cultures, but favors the combination of global elements and local cultures.

It is important to understand that cultural *glocalization* does not negate the status of American hegemony in the global economic system; rather it implies the new role of the U.S. in globalization today. U.S.-led developed nations advocate liberal democracy throughout the globe (Sklair, 2001; Li & Clark, 2009; Ikenberry, 2007), which in turn benefit their interests in global economic activities. Kumaravadivelu's McDonald's example coincides with what Li and Clark suggested for liberal democracy: that the interests of dominant economic powers should not override the interests of subordinate classes. Therefore, Hugonnier's emphasis on developing tolerance and respect for foreign culture suggests an important prerequisite for the U.S. in order to fulfill its global economic goals, as well as its political goals.

The discussion of globalization and its impact on education imply the importance of participating in an international program focusing on languages and area studies. The ASC at the University of Pittsburgh aims to produce professionals proficient in Asian languages and related area knowledge, representing an educational model that responds to the challenges posed by globalization.

Asian countries increased global influence has led to increased economic integration with the U.S., resulting in more political activities and cultural exchanges among these countries than ever before. Professionals who are proficient in Asian languages and area knowledge are in

greater need to strengthen partnerships between the U.S. and many Asian countries in a global system. More importantly, through Asia-related studies individuals are better able not only to raise their sense of being a global citizen who values difference, cooperation and world democracy, but also to increase their competencies and skills in the global market. Taken together, participating in the ASC can be an important educational experience spurred by the requirements of globalization.

2.2 HUMAN CAPITAL THEORY

To understand human capital theory it is essential to recognize three prominent economists, Theodore Schultz, Gary Becker, and Jacob Mincer. In his book *Investment in Human Capital: The Role of Education and of Research*, Schultz (1971) promoted the idea that human beings are capital goods, and that human capital is associated with the acquisition of knowledge and skills. Schultz argued that treating human beings as capital goods did not devalue them, emphasizing that human beings could enhance their welfare by investing in themselves.

More specifically, Schultz (1971) described human capital as “skills, knowledge, and similar attributes that affect particular human capabilities to do productive work” (p. 35). Human capital is a set of knowledge, skills, and abilities that enable individuals to produce and perform in the workforce. According to Schultz, human capital is less quantifiable, differing from physical capital, which has fixed capital value. However, both can yield profits if invested appropriately.

Schultz (1971) synthesized five ways to develop human capital. These included health facilities and services that affect the well-being of people, on-the-job training, formal education

from the elementary through university level, adult education programs that include agricultural extension programs, and migration due to changing job opportunities. Similarly, in his book *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, Becker (1975) cited on-the-job training, schooling, and health services and activities as primary forms of investment in human beings to increase their productivity.

In *Studies in Human Capital*, Mincer (1993) defined human capital as accumulated human work capacity. Although it cannot be traded and investment in it is often associated with non-market activities (e.g., education), human capital qualifies as capital in the same sense as physical capital. Mincer cited that while human capital is intangible compared to physical capital, human beings are marketable assets. In this context, human beings' knowledge and skills are capital that is developed through investment in activities, such as formal education, job training, labor mobility, and health maintenance.

2.2.1 Human Capital and Global Economy

The rise of the global economy presents challenges to individuals and corporations. At an individual level, the global economy requires a person to acquire and update knowledge and skills in order to compete in the global labor market. At the corporate level, a corporations' competitiveness is heavily dependent on its stock of human capital in a market-oriented economy. In this context, the global economy increases the attention on and significance of human capital in unprecedented ways. As Marshall (2005) stressed, human capital not only drives individual and social progress, but also plays an important role in an increasingly competitive and knowledge-intensive global economy.

The relationship between education and the global economy is particularly important. Spring (1998) described the relationship between education and the global economy as integral. The increased importance of education is in part a product of an integrated and competitive global economy. Sound education policy and practice contribute much to the development of human capital; thus, meeting the needs of the global economy. Leading multilateral educational organizations (i.e., the Organisation for Economic Co-Operation and Development [OECD], the United Nations, etc.) confirm education as an aid to the development of a market economy by increasing the productivity of individuals. Knowledge and skills are instrumental to economic production. A corporation's hiring decisions are largely based on an individual's knowledge and skills in relation to productivity. In a free market, corporations depend on the available stock of human capital. Corporate success is greatly tied to its ability to transfer human capital into increased production and growth (Spring, 1998).

2.2.2 Demand for Language Skills and Area Expertise in the U.S.

Human capital theory holds that investment in human capital will result in higher individual and organizational productivity. However, human capital does not automatically lead to higher productivity. Without enough market demand for or motivation to use specific knowledge and skills, productivity will not increase (Hietala, 2005). The U.S. General Accounting Office (GAO) reported that although a changing security environment and increasing economic globalization have increased the need for personnel proficient in foreign languages, the supply of such labor has not met the demand. GAO cited gaps in foreign language skills, indicating that there is great need for not only translators and interpreters, but also staff with foreign language skills, which

are critical for successful job performance. Shortages of foreign language professionals are particularly apparent in many Middle Eastern, Asian, and Austronesian languages.

It is also worth noting that the demand for foreign language skills is not limited to federal agencies. In an increasingly globalized marketplace, American businesses' need personnel with foreign language skills and cultural expertise to address economic challenges and maintain its economic advantage (O'Connell & Norwood, 2007). Transnational corporations require employees who are fluent in foreign languages to engage in interconnected businesses and compete in the global market, and increase their international presence. Additionally, domestic markets require knowledge and skills due to growing immigration. A more culturally diverse domestic population also demands personnel with foreign language and culture skills. Thus, the occupation fields requiring more foreign language skills and cultural expertise have expanded to include law enforcement, education, health care, and social services.

2.2.3 Human Capital and Participation in the ASC's Certificate Program

Human capital theory provides motivation for participating in the ASC's certificate program. This is particularly true in the era of globalization. Drawing from human capital theory, individuals often acquire Asian languages and area knowledge in order to become more competitive in the global market. Echoing Spring's (1998) assertion that education and the global economy are intertwined, students develop their human capital by acquiring Asian language skills and area knowledge through the ASC, likely increasing their employability in an era when language competency and area expertise are in great demand. Thus, much of the agenda for education promotes educational policies and practices to develop human capital that meets the needs of the global economy.

Based on Hietala's (2005) argument, human capital increases productivity only when there is demand for the knowledge, skills and abilities learned. In the era of globalization, demand for Asia professionals is growing significantly in a wide variety of occupations. This demand is particularly high in government and business. For instance, positions for Asia professionals in federal agencies often go unfilled, with shortages particularly in positions that require Asian language proficiency in Korean, Mandarin, Japanese, and Bahasa Indonesia (General Accounting Office, 2002). Given the increasingly important role that Asian countries play in the global economy, professionals who are proficient in Asian languages and area knowledge will continue to be in high demand.

2.3 SUMMARY

A theoretical framework drawn from globalization and human capital theories guides this study. Economic, political and cultural aspects of globalization theory are integrated to provide rationales for college students' participation in the certificate program. Human capital theory suggests that the global economy and an increasing demand for international expertise push students to participate in the ASC's certificate program (Figure 1).

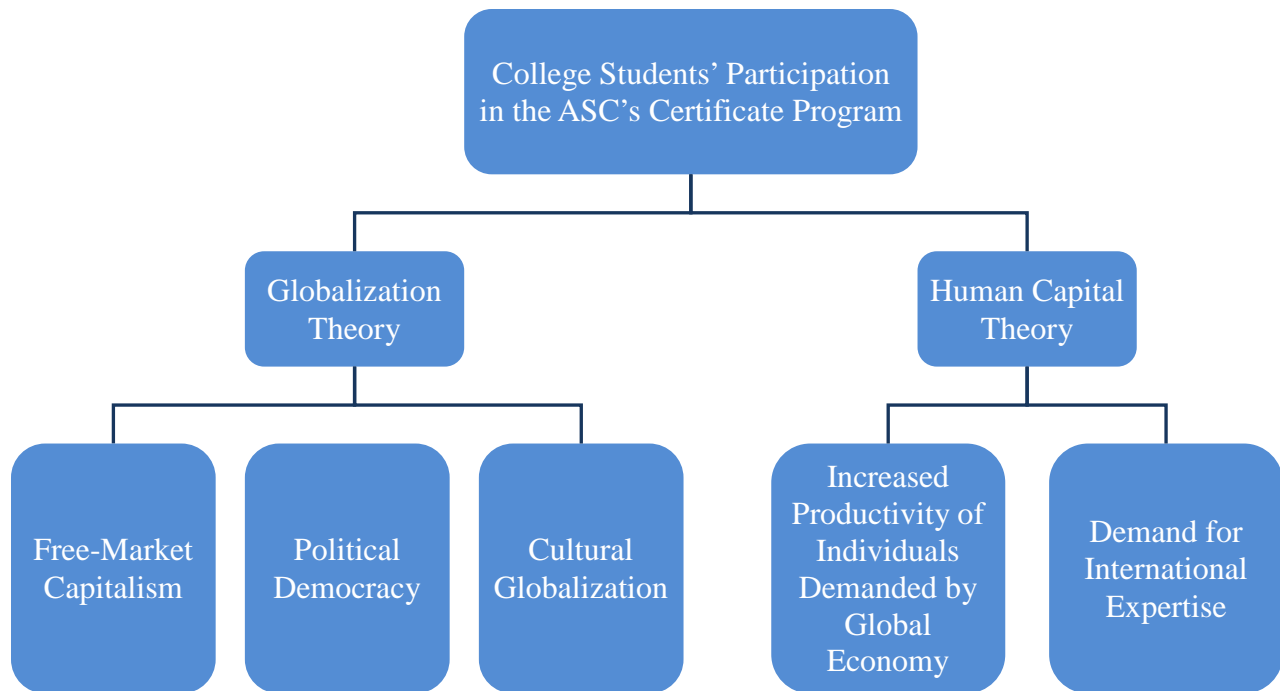


Figure 1. Theoretical Framework of Students' Participation in the ASC's Certificate Program

The economic aspect of globalization theory indicates that free-market capitalism increases international competition as jobs move from developed countries to developing countries. *Transnational capitalists*, a dominant class in the capitalist global system, achieve their economic interests through outsourcing labor from developed to developing countries. Free market capitalism is tightly linked to liberal democracy. A common political culture helps *transnational capitalists* to achieve their economic interests. The hegemony of transnational capitalism promotes a brand of liberal democracy where transnational capitalists engage in political activity primarily to achieve their economic interests. This brand of liberal democracy is not universal. Cultural *glocalization* means the incorporation of global elements into local cultures, and local cultures cater to the global elements. Cultural *glocalization* is not merely Americanization or localization; yet it is a combination of globalization and localization.

The importance of foreign language and area studies can be traced to these three components of globalization theory. Through foreign language and area studies, students are able

to increase their competitiveness in the labor market, spread the ideals of democracy, recognize the interests of developing countries, and understand local cultures' role in a globalized world.

Human capital theory implies investment in foreign language and area studies can increase individuals' productivity at work. Especially in the context of the global economy, foreign language and area expertise are expected to be valuable assets for economic growth. In the knowledge-based economy, individual and corporate capacity in foreign language and area expertise holds significant market value. Human capital increases productivity when there is enough demand for the knowledge, skills, and abilities acquired. Higher demand leads to higher productivity. As demand for foreign language and area experts expands to various occupations (e.g., government, business, education, health care, and social work), people's investments in such knowledge and skills become more rational.

3.0 LITERATURE REVIEW

3.1 INTRODUCTION

This chapter reviews literature on area studies in the U.S., and the impact of area studies centers on developing students' global competency and skills for international careers. The first part of this chapter is focused on area studies in the U.S., providing an overview of the history of area studies, major funding support contributing to the development of area studies and area studies centers, and the current status of area studies in the age of globalization. The second part of this chapter is focused on literature directly related to the impact of area studies centers on students' development of global competency and skills for international careers. To illustrate the impact of area studies centers on student global competency, I provide a rationale for students' development of global competency in order to compete in a global economy.

To understand how global competency is developed, it is important to know what characterizes global competency. Definitions of global competency proposed by a variety of scholars and professionals are explored. Since area studies centers are housed in higher education institutions, how higher education institutions play a role in developing global competency in students is examined, before moving to the analysis of the role of the area studies centers in developing global competency in students.

Regarding literature on the impact of area studies centers on skills development for international careers, I first explore skills demanded in international careers. Skills demanded in international careers include international knowledge, foreign language and cultural skills, and cognitive skills. After skills demanded in international careers are identified, literature on how area studies centers play a part in developing these skills is examined.

3.2 AREA STUDIES IN THE UNITED STATES

Area studies in the U.S. now mostly focus on the non-Western world and develop at an astonishing rate. The Cold War led to increased attention in the U.S. on the role of area studies in developing citizens' understanding of foreign countries. This section includes a summary of the historical evolution of area studies in the U.S., the major funding support for the development of area studies and area studies centers/programs, and the current status of area studies in response to the global environment.

3.2.1 The Historical Evolution of Area Studies in the U.S.

The precursor to area studies in the U.S. dates from the early 1900s, with the development of university programs and government agencies that assist learning about other parts of the world. By the 1930s, academic initiatives largely dedicated to the creation of knowledge about distant parts of the world included Russian and the Slavic study at Harvard University, East Asian study at Yale and Columbia University, Latin American study at the University of California, study of Middle East and South Asian at the University of Chicago, and South Asian study at the

University of Pennsylvania. During the interwar years, government agencies played an equally important role, undertaking initiatives to confront challenges from other parts of the world. The State Department trained many Americans ready to dedicate themselves to careers as diplomats representing American interests in other countries (Lambert, 1984). World War II led the U.S. to sharpen its perceived need for comprehensive knowledge about other parts of the world. It was after World War II that area studies, especially in the non-Western world, expanded substantially in the U.S.

In *Learning Places: The Afterlives of Area Studies*, Jervis (2003) cited that U.S. area studies began in the mid-1940s. With the onset of the Cold War, the U.S. government had greater need to learn about regions of the world that were newly important for American security. He further cited that field of postwar area studies was largely shaped by the need for foreign intelligence. Thus, U.S. area studies focused largely on the regions of the world such as Russia, Central and Eastern Europe, and East Asia in which communism had the strongest influence. During the early years of the Cold War, collaboration between universities and intelligence agencies reached a surprisingly high level. With the passage of the National Defense Education Act, the intelligence emphasis continued and became more explicit role in the contemporary era of area studies (Jervis, 2003).

Lambert (1984) found the World War II years to be critical to the development of area studies. The model of universities and government agencies collaboratively training military personnel in foreign languages and the areas in which these languages were spoken was the embryo of campus-based language and area studies. Although coming into being in the interwar years and primarily serving for the military services, a campus-based integrated program that

combined language instruction with various disciplinary courses in relation to a country or a region continued into the postwar years and underwent rapid growth.

During the postwar years, area studies entered into the epoch of intellectual engagement of higher education institutions. Between 1958 and 1970, the number of PhDs working in area studies as well as campus-based language and area studies programs increased substantially (Lambert, 1984). Since World War II, area studies in U.S. higher education have increasingly focused on the non-Western world. By the early 21st century, thousands of colleges and universities conducted international-oriented teaching and research on Africa, Asia, Latin America, the Middle East, and the former Soviet Union. Prior to 1940, U.S universities produced fewer than 60 PhDs on the contemporary non-western world. Materials with respect to all across the world are central components of thematic courses in the social sciences, humanities, and professional schools (Szanton, 2003).

3.2.2 Major Funding Support

Although colleges and universities made tremendous investment through their own resources in promoting area studies, the major contributor to the astonishing expansion of area studies and area studies centers/programs housed in the colleges and universities was external financial support (Lambert, 1984). The principal funding foundations devoted to the expansion were the big three: the Ford Foundation, the Rockefeller Foundation, and the Carnegie Corporation of New York. In addition, support from Title VI of the Higher Education Act (HEA) and the Fulbright-Hays Act served as a crucial catalyst for the expansion of area studies.

The Ford Foundation

The Ford Foundation is recognized as the major player and principal external funding source for area studies in the U.S. (Lagemann, 1992; Lambert, 1984; Szanton, 2003). Founded in 1936 by Henry and Edsel Ford, the Ford Foundation provided funding to many kinds of organizations focusing on scientific, educational and charitable purposes for the public welfare (Ford Foundation, 2011). In the decades that followed the death of Henry Ford in 1947, the Ford Foundation switched its attention to international issues and granted larger amounts of money to leading universities for international research. Grants from the Ford Foundation, to a large extent, spurred the development of area studies (Goldstein, 2007). As addressed by Smith and Bender (2008), “between 1952 and 1966, the Ford Foundation invested \$270 million in area studies, making area studies a ‘core component’ of U.S. higher education” (p. 4).

Funded by the Ford Foundation, a variety of programs supported the acquisition of foreign languages and area knowledge. Fellowships to individual scholars and students were effective avenues to enhance the body of knowledge about foreign areas (Berman, 1983; Fleishman, Kohler, & Schindler, 2007). When compared with other foundations such as the Rockefeller and Carnegie, the scale of the activities provided by the Ford Foundation was remarkable. Notably in 1953, Ford’s Board of Overseas Training and Research granted \$488,150 to 97 young Americans to begin or continue studies in Asia, and the Near and Middle East. This fellowship program aimed to stimulate increased knowledge of these areas and to produce area experts to meet national needs and contribute to foreign policy formulation (Berman, 1983).

Another notable Ford Foundation fellowship was the Foreign Area Fellowship Program (FAFP). Established in 1950, the FAFP was the first large-scale national competition to promote area studies training in the U.S. Providing its first awards in 1951 for inter-disciplinary language

training and dissertation research, by 1972 the FAFP supported the training and research of 2,050 doctoral students in the social sciences and humanities in almost every region of the world (Szanton, 2003). The FAFP was an essential first step in training area studies scholars, increasingly in demand for building foreign area studies centers (Fleishman, Kohler, & Schindler, 2007)

In 1972, the Ford Foundation turned over the management of the FAFP, its centerpiece program, to the Social Science Research Council (SSRC) and the American Council of Learned Societies (ACLS) (Berman, 1983; Goldstein, 2007; Szanton, 2003). The Ford Foundation's long-term commitment to the support of area studies at key universities was an influential and legitimate approach to strengthening Americans' knowledge about foreign. Over the next 30 years, the Ford Foundation continued contributing massive grants to the SSRC and the ACLS, enabling them to fund nearly 3000 area studies dissertation fellowships, and numerous field development workshops, conferences, and publication programs. During this same period of time, the Ford Foundation funded \$120 million in grants to 15 major U.S. research universities to establish interdisciplinary area studies centers (Szanton, 2003). As Berman (1983) noted, "the Ford Foundation almost singlehanded established the major area-studies programs in American universities" (p. 102).

The Rockefeller Foundation

The Rockefeller Foundation is a prominent private philanthropic organization founded in 1913 by John D. Rockefeller Sr., John D. Rockefeller Jr., and Frederick Taylor Gates. The central mission of the Rockefeller Foundation is to promote the wellbeing of mankind throughout the world. Since 1913, the Foundation's philanthropic mission is to support work that

expands opportunities and strengthens resilience to meet social, economic, health and environmental challenges (Rockefeller Foundation, 2012).

Although dwarfed by the Ford Foundation, the Rockefeller Foundation made significant efforts in promoting international area studies programs in U.S. higher education institutions. After World War II, the Rockefeller Foundation funded the first area studies program at an American university (Berman, 1983; Fleishman, Kohler, & Schindler, 2007). A Russian Institute affiliated with Columbia University's new school of International Affairs was established in 1945 with a Rockefeller Foundation grant of \$250,000. Along with the Carnegie Corporation, which partnered with the Rockefeller Foundation, several universities received large grants to develop their capabilities to build area studies programs in the following few years (Berman, 1983).

Also noteworthy, the Rockefeller Foundation launched a 12-year program in area studies in 1949. Rockefeller Foundation grants were distributed to the universities in countries across the globe, including the U.S., Canada, Great Britain, France, Turkey, Germany, India, and Japan (Rockefeller Foundation, 2012). In the decades that followed, the Rockefeller Foundation played a crucial role in expanding the capabilities of American universities in area studies.

The Carnegie Corporation of New York

The Carnegie Corporation of New York is a large philanthropic institution founded by Andrew Carnegie in 1911 to promote the advancement and diffusion of knowledge and understanding (Carnegie Corporation of New York, 2009). Coinciding with the Ford Foundation and the Rockefeller Foundation's efforts to strengthen Americans' understanding of various parts of the world, the Carnegie Corporation played a leading role in supporting area studies programs in American universities.

World War II and its immediate aftermath was the advent of the Foundation's deepened interest in international fields. Recognizing the United States' growing need for scholarly and policy experts in international affairs, the Carnegie Corporation, in partnership with the Ford Foundation, launched area studies programs in major American universities, among which the establishment of a Russian Research Center at Harvard University in 1948 was a significant milestone (Columbia University Libraries, undated). By 1956, the Carnegie Corporation granted over \$1.5 million to Harvard's Russian Research Center; an impressive grant making effort at that time (Gregorian, 1999).

The Carnegie Corporation's investment in the Russian Research Center spurred rapid growth in area studies programs. By 1961, Carnegie Corporation funded the creation of area research centers across the nation to study Russia and Eastern Europe, the Near East, South Asia, East Asia, Africa, and Latin America (Katz, 2010). Still today, the Corporation continues to play an important part in helping Americans expand the pool of knowledge in foreign languages and area studies.

Title VI of the HEA and Fulbright-Hays Act

Two important Acts that strengthen foreign language and area studies in the U.S. are Title VI of the Higher Education Act (HEA) and the Fulbright-Hays Act. Title VI of the Higher Education Act (HEA) builds domestic capacity of producing foreign language and area experts, while the Fulbright-Hays Act offers opportunities for American area experts to conduct research and study overseas.

Title VI of the National Defense Education Act of 1958 was renamed as the Higher Education Act (HEA) in 1965. The launch of Sputnik in 1957 by the Soviet Union was a stimulus for the passage of the HEA Title VI (O'Connell & Norwood, 2007; U.S. Department of

Education Office of Postsecondary Education, 2011). Title VI, referred to as the “Language Development” section, focuses on uncommonly taught languages. It supports Language Area Centers, known as National Resource Centers (NRCs), for expansion of postsecondary language instruction, focusing particularly on uncommon languages and related subjects, modern foreign language fellowships, research on teaching and learning, and language institutes to provide advanced language training (U.S. Department of Education Office of Postsecondary Education, 2011). Title VI programs’ emphasis in the learning of non-Western world reflects the original intention to strengthen expertise in underrepresented world areas (U.S. Department of Education Office of Postsecondary Education, 2011).

Under Title VI, higher education institutions and related entities receive a variety of grants to enhance instruction in foreign language and area studies. Among several distinct activities authorized by Title VI, National Resource Centers (NRCs) and Foreign Language and Area Studies (FLAS) fellowships remain large-scale central activities, as approximately three-fifths of the Title VI funds are used for these two activities (Kuenzi, 2008). NRCs represent a key force for strengthening U.S. language and area expertise; keeping pace with the demands of a changing world. By the 21st century, Title VI funding supported around 125 university-based area studies centers designated as NRCs (Szanton, 2003). FLAS fellowships serve to support graduate training programs at many NRCs, providing opportunities both domestically and abroad during either summer or the academic year to intensively study less-commonly taught languages and international areas (U.S. Department of Education Office of Postsecondary Education, 2011).

Title VI programs have made valuable and broad contributions to the field of language and area studies. Title VI grants strengthen foreign language teaching and learning at the K-12

level, and area studies at the undergraduate, graduate and postgraduate levels. With a series of ongoing reform movements, Title VI continues to meet new imperatives, while maintaining its basic purposes since inception to foster language and area expertise (Lambert, 1991).

The Fulbright-Hays Act of 1961 is another important Act addressing training needs for non-Western language and area experts. It was named after Senator J. William Fulbright who was instrumental in persuading Congress to pass the Mutual Education and Cultural Exchange Act of 1961, commonly known as the Fulbright-Hays Act (Scarfo, 1998; U.S. Department of Education Office of Postsecondary Education, 2011). Section 102(b) of this Act placed an exclusive emphasis on strengthening foreign language and area studies throughout the U.S. education system (Scarfo, 1998).

Differing from Title VI programs, which largely build domestic capacity to strengthen foreign language and area expertise, the Fulbright-Hays Act provides language and area experts with opportunities to conduct research and study overseas. Programs supported by the Fulbright-Hays Act include Doctoral Dissertation Research Abroad (DDRA), Faculty Research Abroad (FRA), Group Projects Abroad (GPA), and Seminars Abroad (SA). These programs serve as important overseas complements to the Title VI domestic programs. Fulbright-Hays Act is therefore often viewed as an overseas counterpart to the Title VI domestic agenda (Scarfo, 1998; U.S. Department of Education Office of Postsecondary Education, 2011).

3.2.3 Area studies in the Age of Globalization

Goss and Wesley-Smith (2010) stressed that area studies faced increasing challenges with the rise of neoliberal ideology in the 1990s. Neoliberal perspectives on globalization demanded the development of new economic and political institutions, and thus new forms of global

knowledge emerged. Goss and Wesley-Smith went on to address the economic crisis in area studies, evident in declining funding from both federal and private agencies, including the Social Science Research Council and the Mellon, MacArthur and Ford foundations. Facing the new global environment, these agencies appeared no longer firm in their long-standing commitment to the field of area studies. Advocates of a universal approach to inquiry began to challenge the need for specialized area-based knowledge in the new world order. University-based global and international studies programs and centers became competitors of area studies for funding, students, and scholarly creditability (Goss & Wesley-Smith, 2010).

Ludden (1998) posited that the new globalization of the 1990s heated up universal theories in disciplinary approaches. The interaction of universal disciplinary knowledge and area-specific knowledge produced a new form of global knowledge that contained both the universality of social science and the area-specificity of the humanities. Although not categorized as area studies, this global knowledge encompassed area-specific knowledge and defined participation of area studies in the global agenda. According to Ludden, the global agenda creates numerous new opportunities for area studies to serve a variety of interest groups, including the social sciences, business schools, public policy institutes, medical schools, NGOs, United Nations organizations, private enterprise, and governments. Thus, the context of globalization expands the scope of area studies in universities. Currently, many area studies programs associate with schools in different disciplines.

Globalization presents new perspectives on area studies and the area studies reflect the global interests. Kenneth Prewitt, President of the Social Science Research Council (SSRC) indicated the SSRC's traditional support for area studies that develop knowledge about particular countries or regions must take global trends into consideration (Hall & Tarrow, 1998). However,

Hall and Tarrow (1998) argued that focusing on global trends to analyze domestic problems threatens to undermine understanding of particular countries or regions. In their opinions, the danger in focusing on globalization lies in limited knowledge of internal complexities of particular countries or regions; as people increasingly use global trends to examine domestic issues, diminishing attention to local contexts.

Hall and Tarrow's argument inspires additional concerns about the direction of area studies in the age of globalization. The global environment requires the incorporation of global knowledge into area studies; however, attention to the global development might be detrimental to knowledge about particular countries or regions. The debate over area studies in the era of globalization brings about a number of considerations for researchers in their work. To understand current area studies, it is essential not only to recognize general methodological tools that highlight the importance of the global environment, but also to acquire adequate knowledge of particular countries or regions.

3.3 THE IMPACT OF AREA STUDIES CENTERS/PROGRAMS

This section provides a comprehensive review of the literature regarding the impact of area studies centers/programs on developing student global competency and skills for international careers. An investigation of globalization, particularly economic perspectives, presents the rationale for the development of global competency. The literature review explores definitions of global competency from a variety of scholars. The role that higher education plays in nurturing globally competent students in response to the interconnected global economy is also examined, leading to a particular focus on university-based area studies centers.

Skills requirements for international careers stimulated by the integrated global economy are reviewed. The literature review highlights the importance of skills, such as language and area expertise, cross-cultural skills and cognitive skills, which are highly desirable in international careers. The role of area studies centers in developing key skills for international careers is elaborated in the last section of the literature review.

3.3.1 The Impact of Area Studies Centers/Programs on Students' Global Competency

Global Competency in a Global Era

Globalization is considered a driving force that highlights the necessity of a set of global competencies required of people to participate in the global environment (Sutton, 2005). According to Held (1991), globalization is “the intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa” (p. 9). Globalization means the interdependent world in which modern communications, transportation and the Internet integrate more and more countries and people together in newer and more complex ways (Wiarda, 2007). As globalization “blurs national boundaries” (Torres, 2002), competencies required of people are expanded from national contexts into international contexts. The ability to compete globally with people from all over the world is an important prerequisite for the U.S. to engage successfully and fulfill its continued global leadership.

Many people view globalization as a purely economic phenomenon, a combination of rapid technological advancement, massive capital mobility, and burgeoning international trade (Mott, 2004). An interconnected global economy makes the task of developing people's global competency increasingly important. The economic perspectives of globalization emphasize that

the world's most prosperous economies rely more on people, their knowledge, and their ideas and less on resources (Mott, 2004). Employees with global knowledge and skills enable corporations to maintain competitive advantages in a knowledge-based global economy. As suggested by Skryme (1997), a knowledge-intensive company entails human capital and competencies as a crucial component of value.

Many Americans' limited knowledge of international and global phenomena beyond their national borders presents challenges to compete in a world of differences (Barker, 2000). Building global competency in students draws increasing attention from policy makers and educators who view education at all levels as essential to train globally competent students ready to live in a globalized world. In order to understand how global competency can be developed, it is important to grasp its definition.

Defining Global Competency

A report published by the Council on International Education Exchange in 1988 first emphasized global competency. Known in international education circles as a predominant influence on the concept of global competency, this report suggested American universities send students on exchange programs to universities abroad outside the traditional Anglo-European setting to developing countries where English is not the dominant language (Hunter, White, & Godbey, 2006). There is no single definition of global competency upon which everyone agrees. A variety of scholars proposed definitions of global competency and identified the knowledge, skills, and attitudes that characterize global competency.

Lambert (1993), considered by many scholars as the father of the global competency initiative, identified five dimensions of global competency: (1) knowledge; (2) empathy; (3) approval; (4) foreign language competence; and (5) task performance. He specified that a

globally competent person possesses knowledge of world geography, people and events; has empathy with people from other nations and cultures; demonstrates a positive attitude relating to global affairs; acquires foreign language skills to cope adequately in the foreign setting; and has the ability to perform international-oriented tasks.

Hunter, White, and Godbey (2006) noted that there is a limited body of research with the expressed purpose of defining the term “global competency” or identifying its requisite knowledge, skills, attitudes, and experiences. They summarized a study conducted by Hunter (2004), which aimed to promote higher education officials to create curriculum and activities to nurture globally competent graduates. The study adopted a dual method, using a Delphi Technique to define global competency and a survey to determine the knowledge, skills, attitudes, and experiences necessary to become globally competent. The Delphi Technique drew from 17 participants, including human resource managers of top transnational corporations, senior international educators, United Nations officials, intercultural trainers, and foreign government officers. The resulting characteristics of globally competent people were “having an open mind while actively seeking to understand cultural norms and expectations of others, leveraging this gained knowledge to interact, communicate and work effectively outside one’s environment” (as cited in Hunter, White, & Godbey, 2006, p. 17). Hunter, White, and Godbey noted the inevitable relationship between thought and action reflected in this definition; implying that today’s education aligns with a business model where learning is associated with productivity and capability.

The survey targeted 133 representatives from universities recognized in the “Profile of Success at Colleges and Universities – Internationalizing the Campus 2003” and transnational corporation human resource officials serving on the National Foreign Trade Council’s Expatriate

Management Committee and Global Mobility Roundtable. Findings revealed that in order to become globally competent, a person must understand his/her own cultural norms and expectations in order to develop an open attitude toward diversity have a good grasp of globalization, world history, and global events and see cultural differences to confront competition globally, collaborating effectively with people across cultural borders, and successfully engaging in both social and business settings in other nations (Hunter, White, & Godbey, 2006). In general, the knowledge, skills, attitudes, and experiences required of a globally competent person includes an open mindset that embraces diversity, the ability to understand global issues, the capacity to engage in international community linguistically and culturally, and the skills to perform successfully in the global markets.

In addressing the focus of global education for schools, teachers, and students, Reimers (2010) pointed out three interdependent dimensions of global competency: (1) a positive disposition toward cultural difference and a framework of global value to engage in difference, (2) an ability to speak, understand and think in foreign languages, and (3) the skills to integrate across disciplinary domains to understand global affairs and events and a capacity to think critically and creatively about the complexity of current global challenges. Reimers consistently agreed with the importance of foreign language, cultural skills, and an open attitude toward difference in contributing to global competency. More importantly, Reimers highlighted an interdisciplinary model to nurture knowledge and skills leading to a globally competent student. Reimers' concept of tri-dimensional global competency suggests that quality global education attends to each dimension.

The National Education Association (2010) defined global competency as:

The acquisition of in-depth knowledge and understanding of international issues, an appreciation of and ability to learn and work with people from diverse linguistic and cultural backgrounds, proficiency in a foreign language, and skills to function productively in an interdependent world community.

(p.1)

In this definition, the key elements of global competency are: (1) the awareness of international and global events, (2) appreciation of cross-cultural difference and the capacity to acknowledge other points of view about global issues, (3) proficiency in foreign languages, and (4) competitive skills that prepare people to compete in the global marketplace (National Education Association, 2010).

The Global Studies Program at the University of Pittsburgh used a definition of global competency created by its staff as a foundation (Hunter, 2004). As synthesized by Hunter about the definition of global competency provided by William Brustein, the former director of the University of Pittsburgh's University Center for International Studies (UCIS), the dimensions of global competency include the ability to work effectively in distinctive international environments, a consciousness of current global issues, understanding of global organizations/institutions and business activities, the capability for effective communication across linguistic and cultural boundaries, and the ability to adapt to a diverse cultural environment (Hunter, 2004).

Although proposed by aforementioned different scholars and committees, the concept of global competency reflects a notable consistency in its integral components. Included in these components are knowledge and understanding of global affairs, the ability to understand people of different nations and cultures, positive attitudes toward people of different cultures, foreign

language competency, and the capacity to communicate effectively in a cross-cultural environment and perform successfully in the global marketplace.

Global Competency in Higher Education

Higher education institutions are responsible for developing professionals who are globally competent. Reimers (2009) addressed the essential role of higher education institutions in contributing to the key dimensions of global competency. Citing a recent Committee for Economic Development report showing fewer than 1% of college students study languages critical to national security and about 9% study any modern foreign language, Reimers suggested colleges and universities create foreign language requirements, establish offerings in area studies and international comparative studies in different disciplines, and provide broader opportunities for study abroad and faculty development in international studies. This suggestion places greater emphasis on foreign language learning and area studies within disciplinary domains to produce globally competent students. In addition, Reimers' suggestion that higher education institutions conduct elementary and secondary school professional development to strengthen global expertise and foreign language skills promotes cohesive efforts in supporting international education in schools. In this sense, students can benefit from teachers and administrators who are equipped with global knowledge and consequently build their competencies before they enter higher education.

The American Council on Education (ACE) (2002) stressed that global transformations of the past decade have created an unprecedented need for Americans to expand their international knowledge and skills. The global competency of U.S. people is seen as essential for America's international preparedness. The nation's educational system bears the responsibility to produce individuals with global competency. This responsibility is of paramount importance, as

the demands for qualified professionals who understand foreign languages, cultures, systems, and global issues are far greater than current supply. In particular, a partnership between the federal government and higher education institutions serves as an effective approach to produce experts on global issues, international knowledge and skills, and cross-cultural understanding. Federal support of foreign language, area and international studies, and international business programs at U.S. universities is a national policy to strengthen international education and “provide a storehouse of knowledge and produce high-level experts to address national security, economic, and educational challenges” (American Council on Education, 2002, p. 15).

Brustein (2007) proposed internationalized education at U.S. higher education institutions to achieve the goal of preparing globally competent students, stressing global competency as essential for U.S. national security and success in the global marketplace. It is essential that higher education institutions take on the role of producing students who are considered globally competent. Nevertheless, training globally competent graduates is not promising in U.S. higher education. Brustein cited many challenges confronting international educators, including redesigning curriculum to expose students to local and regional cultural contexts, gaining faculty buy-in to integrate global competency into curricula, financing study abroad, integrating international students into campus life, and preparing students for foreign language learning. In confronting these challenges, Brustein called on concerted efforts of administrators, faculty, staff, students, international educators to create and implement a comprehensive and coherent curriculum to prepare graduates to engage in an increasingly globalized world (Brustein, 2007).

Global Competency in Area Studies Centers

In the United States, area studies are firmly rooted in the university setting (Lambert, 1990). Szanton (2003) summarized two distinct types of area studies institutionalized in U.S.

universities: Area Studies Departments, and Area Studies Centers, Institutes, or Programs. One of the most striking differences between these two types of area studies is that Area Studies Departments usually offer degrees while Area Studies Centers, Institutes, or Programs do not. An important feature of Area Studies Centers, Institutes, or Programs is that they often draw in faculty and graduate students from various disciplines, including social sciences, humanities and professional schools, supporting a wide variety of center activities (Szanton, 2003).

The distinction of two types of area studies provides a justification that the ASC at the University of Pittsburgh, the target of this study, falls into the category of area studies centers. The latter part of this section will be centered around Brustein and Lambert's points with respect to the impact of area studies centers on student global competency.

Brustein (2007) provided insights into a unique model of international area studies programs at the higher education level. According to Brustein (2007), aligning international area studies concentration to a disciplinary major is critical to achieving global competency. He was strongly in favor of the interdisciplinary model in which students earn area studies certificates relevant to their disciplines; stressing that integration of disciplinary expertise and area/international studies helps students to become globally competent critical thinkers. This interdisciplinary training was proven to be an effective approach for hiring decisions of the heads of multinational corporations, government offices, and NGOs. These organizations gain substantial added value in graduates equipped with a combination of disciplinary expertise, international area knowledge, foreign language, and study abroad experience (Brustein, 2007).

Lambert (1993) highlighted the creation of global competency as the overarching goal of international education. In addressing the development of a general global competency, Lambert (1993) cited the training of academic international specialists as one important educational

process through which to nurture globally competent Americans. According to him, the principal point of the training of these specialists is the acquisition and creation of knowledge. However, empathy is also an indispensable quality for analysis and successful field work.

The training of language and area specialists is regarded by Lambert as the best organized because of long-term federal funding granted to university centers that specialize in specific world regions. The training they receive coincides with the core activities of area studies centers, which include “a mix of a core concentration of courses in the theory and methodology of a particular discipline, a broad multidisciplinary mix of courses dealing with the region or topic, a concentration of courses in one discipline focused on the topic or region, and varying amounts of language education” (Lambert, 1993, p. 321).

3.3.2 The Impact of Area Studies Centers/Programs on Skills Development for International Careers

Skills Demanded in International Careers

The globalized world spurs the creation and development of international-oriented jobs, which as a result drives the growing need for foreign language skills, intercultural skills, and international knowledge. According to the report *Education for Global Leadership: The Importance of International Studies and Foreign Language Education for U.S. Economic and National Security* published by the Committee for Economic Development (CED) in 2006, globalization drives the demand for a U.S. workforce that possesses knowledge of other nations and cultures and foreign language competency. As the number of jobs tied to overseas concerns increases, global knowledge and skills are demanded in future business, government, health care, and law enforcement careers.

O'Connell and Norwood (2007) expressed their concern that U.S. students' general lack of foreign language ability, cultural skills, and international knowledge poses critical challenges to national security and global economic competition. They cited growing needs for language skills and area expertise in a variety of careers, including government, business, law, health care, and education. It is notable that they indicate the most acute unmet need for professionals equipped with language skills and area expertise is in government, particularly for those with competency in critical languages of use in national security agencies. An increasing global marketplace urgently needs professionals with language skills and area expertise to address economic challenge and strengthen American business. Also worth noting is that the needs of professionals are not limited to government and business but also are reflected in law, health care and education, which are driven by the changing world environment (O'Connell & Norwood, 2007).

In addition, Bickson and Law (1994) conducted research to identify the characteristics professionals needed to perform successfully in the global business environment. Responses from both participating multinational corporations and participating universities led them to summarize cognitive, social and personal skills, academic knowledge, non-academic training and experiences, foreign language competency, and cross-cultural competency as essential to success in a global-oriented firm. It should be noted that soft skills, including cognitive skills, social skills and personal traits, were rated higher by the multinational corporations than hard skills, which included academic knowledge and non-academic training and experiences. These soft skills are closely associated with cross-cultural competency, a new human resource increasingly required by globalization, which involves both domain knowledge relating to other cultures and

social and personal skills that enhance cross-cultural communication and collaboration (Bickson & Law, 1994).

A similar study conducted by Kedia and Daniel (2003) resonated the demand for corporate employees with international competency, including international knowledge and skills in foreign language. Findings of this study were obtained from questionnaires sent to CEOs and HR Directors of Fortune 500, INC 500 companies, and contact companies of Centers for International Business Education Research (CIBERs) and Business and International Education (BIE) grantees. Notable findings revealed that a vast majority of companies agreed that increased international expertise of their staff would increase their overall business either somewhat or a great deal. A majority of companies also indicated placing a greater emphasis on international knowledge and language skills among management and employees over the next ten years. Also worth noting from this study, U.S. business needs in global markets may be better met with a greater emphasis on the less commonly taught languages of Asia, which implies additional international business education programs particularly focusing on Asia need to be developed (Kedia & Daniel, 2003).

Foreign language and area studies centers under Title VI of Higher Education Act serve as a catalyst to address the increased needs of professionals with foreign language, culture skills, and area expertise. As O'Connell and Norwood (2007) reported, the international education programs that focus on foreign languages and area studies under Title VI of Higher Education Act are key for the nation's global competitiveness. The subsequent section, therefore, will be focused on the role of area studies centers in developing skills for international careers.

Skills Development for International Careers in Area Studies Centers

As stated in the previous section, skills needed to successfully perform in international careers consist of foreign language skills, cross-cultural skills, international expertise and cognitive skills. How international area studies centers can develop these skills in students and prepare them for international careers appears to be worthy of investigate.

Breuning and Ishiyama (2006) conducted a study investigating the benefits of international studies major programs at primarily undergraduate colleges and universities in the Midwest. Their findings based on university websites revealed that the international studies programs were geared to provide students with skills for a career in an increasingly interdependent world. The benefits that international studies programs can provide are substantive knowledge about either a specific region of the world or global issues, desirable skills for careers, acquisition of a foreign language, study abroad experience, intercultural competency, thinking, analysis and problem solving skills, writing and speaking skills, and quantitative skills (Breuning & Ishiyama, 2006).

The intriguing feature of area studies centers lies in its interdisciplinary model in which the centers situated in universities cooperate with other departments to provide interdisciplinary training. Interdisciplinary learning benefits graduates as it relates to competencies desired in their future careers. When incorporated into employees' particular disciplinary area, foreign language and cultural skills and area expertise give them additional competency in a globally positioned company. Professionals who demonstrate proficiency in a foreign language as well as knowledge and skills in another professional area acquire a competitive advantage in their international careers (Grosse, 2004; Inman, 1987). The competitive advantage of foreign language and cultural knowledge lies in a great emphasis on the integration of careers and foreign language

studies, which meets a critical need in both disciplines and leads to increasingly successful global interactions (Inman, 1987).

Investment in cognitive skills is becoming a critical prerequisite for participation in globally competitive markets. Cognitive skills, according to the American Psychological Association (2007), are “all forms of knowing and awareness, such as perceiving, conceiving, remembering, reasoning, judging, imagining and problem solving.” The Learning Enhancement Corporation (2008) emphasized the increasing importance of cognitive skills development as it relates to workforce development. Cognitive skills, such as creativity, critical thinking, problems solving, leadership, communications, and collaboration were demanded in employment and highlighted as essential for employees to succeed in the global marketplace (Learning Enhancement Corporation, 2008; Partnership for 21st Century Skills, 2008).

Studies indicate a relationship between cognitive skills and job performance. In a synthesis of hundreds of studies, Hunter (1986) concluded that general cognitive skills predict job performance. Hunter’s study reported an indirect causal path between cognitive ability and job performance, stating that job knowledge is a key predictor of job performance and general cognitive ability is highly correlated with job knowledge, and therefore general cognitive ability is a key predictor of job performance. This path analysis supported that the daily work uses major cognitive processes, such as planning and judgment and memory, and such processes are associated with general cognitive ability, in this regard general cognitive ability has a stronger correlation with job performance than its impact on job knowledge. Furthermore, the validity of cognitive ability predicting job performance showed variation across all levels of jobs, including “manual” jobs and “mental” jobs. Not surprisingly, findings indicated that the more complex the job, the better cognitive ability predicts performance levels (Hunter, 1986).

Hunter's study on the validity of cognitive skills predicting job performance may serve as a stimulus for the development of cognitive skills in college students. Cognitive skills developed through foreign language and area studies centers are gaining significance. Many studies have shown that the cognitive aspects of foreign language and culture learning contribute to an individual's critical thinking skills and creativity development (Bialystok, 2001; Bialystok et al., 2005; Schultz, 2001). According to Fuchsen (1989), it is necessary to acquire new learning strategies and develop abilities to overcome new challenges when involved in foreign language learning. As students are immersed in a different language and culture, they may need to invest a large amount of learning strategies in order to master this challenge. This learning process paves the way to new ways of thinking and problem solving, and teamwork skills, which are desirable qualities required of graduates in competitive global markets.

3.3.3 Summary

Literature reviewed above suggests that area studies centers have an impact on students' global competency and skills development for international careers. Globalization highlights the importance of developing global competency in individuals who are expected to play a crucial role in the knowledge-based global economy. A variety of literature imply that individuals who are considered globally competent understand in-depth global issues, have the empathy with and understanding of people of different cultures, possess the ability to interact with the international community linguistically and culturally, and have the capacity to fulfill international-oriented tasks in competitive global markets.

Higher education institutions can play an essential role in nurturing globally competent students. Researchers identified global competency as critical for the U.S. to address national

security needs and enhance competitiveness in the global market. They suggested that higher education institutions can create opportunities, such as offering in foreign languages, area studies, and study abroad, delivering programs for elementary and secondary school teachers and administrators, and building a partnership with the federal government to fulfill the task of producing international experts who are globally competent. Particularly, area studies centers in higher education institutions, featured by its interdisciplinary model, serve as effective avenues to produce globally competent students.

The growing need for foreign language and culture skills, and area expertise in a variety of careers, especially government and business, is significant. In addition to international skills and knowledge of foreign languages and cultures, researchers found cognitive skills, along with associated cross-cultural competency, to be desired in a global business environment. Area studies centers, to some extent, contribute to the development of these skills, which are useful for students preparing for international careers.

4.0 RESEARCH METHODS

4.1 RESEARCH QUESTIONS

The literature reviewed suggests that area studies centers have an impact on student global competency and skills development for international careers. The ASC at the University of Pittsburgh is an internationally recognized area studies center that promotes the study of Asian languages and related areas. The ASC does not award degrees but does award an Asian studies certificate upon completion of the required credits. A combination of Asian language training and multidisciplinary area studies required for the certificate enables students to acquire both communicative and cultural competence (ASC at the University of Pittsburgh, 2012). Given Asia's increased global economic power, the increasing interdependency between many Asian countries and the U.S. has led to the growing need for professionals with Asian language skills and Asian-related knowledge in global job markets. Therefore, students' knowledge and skills learned through the ASC's certificate program might be expected to contribute to their global competency and skills development for international careers.

Using ASC as a case study, this dissertation investigates the following research questions:

1. What are the characteristics of the sample of students enrolled in the ASC's certificate program?
2. What is students' satisfaction with the ASC's certificate program?

3. What international experience do ASC students have?
4. What foreign language capability do ASC students have?
5. How does college students' participation in the ASC's certificate program impact their perception of global competency?
 - a. How do ASC certificate program courses impact students' perception of global competency?
 - b. How does ASC activities participation impact students' perception of global competency?
 - c. How does students' international experience impact their perception of global competency?
6. How does college students' participation in the ASC's certificate program impact their perception of skills development for international careers?
 - a. How do ASC certificate program courses impact students' perception of skills development for international careers?
 - b. How does ASC activities participation impact students' perception of skills development for international careers?
 - c. How does students' international experience impact their perception of skills development for international careers?

This dissertation utilized a survey method to address research questions. In the section that follows, I discuss literature on survey methods, with a particular emphasis on on-line surveys. I then describe the survey instrument developed by the Collaborative for Evaluation and Assessment Capacity (CEAC) and used in this dissertation. Finally, I review the research procedures used in this dissertation, including a description of participants, an explanation of participant recruitment, organization of the survey instrument, connections between the survey instrument and research questions, reliability of survey instrument, and data analysis procedures.

4.2 SURVEY RESEARCH METHODS

4.2.1 Survey Research Methods

Pinsonneault and Kraemer (1993) identified three defining characteristics of survey research. First, survey research is a quantitative method used to describe some aspects of a population being studied. Second, survey research involves data collection by asking people structured questions. Third, data are collected from a sample of the population being studied and efforts are made to show that findings can be generalized to the entire population.

According to Glasow (2005), a survey is a data collection method to conduct survey research. A survey is a systematic method of collecting quantitative information from a sample of a population under study, allowing the researcher makes inference about the population (The Health Communication Unit, 1999; Kelley et al., 2003). In other words, a survey that primarily encompasses close-ended questions is quantitative in nature and findings drawn from a selected portion of the population are generalizable to the population.

Pinsonneault & Kraemer (1993) reiterated that a survey is “a means for gathering information about the characteristics, actions, or opinions of a large group of people” (as cited in Glasow, 2005, p. 77). Furthermore, Glasow (2005) emphasized that surveys are constructed in a way that the researcher can draw data to test expected relationships among independent and dependent variables. As Kelley, et al., (2003) described, surveys can be used to “seek explanations and provide data for testing hypotheses” (p. 261).

Surveys have a number of advantages over other research methods. Surveys are capable of collecting data from a large number of stakeholders, in a short period of time, and for a relatively low cost (The Health Communication Unit, 1999; Kelley et al., 2003; Glasow, 2005).

Surveys require minimal investment to develop and administer (Bell, 1996). Standardized, structured questionnaires can reduce bias that can be generated by other approaches, such as interviews (The Health Communication Unit, 1999). In many cases, information about attitudes that is difficult to obtain through observational methods can be obtained more easily and efficiently through surveys (McIntyre, 1999).

4.2.2 On-line Surveys

There are two major types of survey methods: self-administered paper or online surveys, and interviews conducted in person or on the telephone (Fink, 2009). Paper surveys, face-to-face interviews, and telephone interviews are traditional modes of conducting surveys. With the development of technology and the increased access to the Internet, on-line surveys are an increasingly viable option.

On-line surveys are primarily e-mailed or website hosted surveys. Rather than completing a conventional pen-and-paper mailed survey, a respondent completes an emailed questionnaire digitally and returns it to the researcher by email or a respondent connects to a survey using a URL, completes it, and submits it on-line (Fricker & Schonlau, 2002; Sackmary, 1998). Truell (2003) emphasized the increasing use of a combination approach for survey data collection by researchers. With the combination approach, researchers contact participants through email and then participants who agree to participate are given a hyperlink to a website where they can complete the survey.

On-line surveys provide a number of important benefits for researchers. Sackmary (1998) divided the advantages of on-line surveys into seven categories: cost benefits, time benefits,

flexibility, completion, sampling advantages, interactivity, and context. His summary was based on a thorough literature review concluded that on-line surveys:

- Are about one-third the cost of mail surveys;
- Are much faster than any other data collection approach;
- Are highly flexible, easy-to-make, and inexpensive to revise and reformat;
- Provide higher levels of answer completion because technology can require question completion before continuing;
- Can more easily and cheaply reach an international population;
- Permit interaction between the researcher and respondents on questions and comments; and
- Fit a population of Internet users that tends to be well-educated, resulting in less bias problems.

This dissertation adopted a survey research method, using an on-line survey to gather data. Reasons for choosing to conduct an on-line survey are as follows: (1) this study targets a large number of participants, (2) data is expected to be collected in a short period of time, (3) the participants (college students) are Internet-savvy and have access to high-speed Internet, (4) this study tests statistical relationship between dependent and independent variables, (5) this study aims to gain information from participants about attitudes and perceptions, (6) a web-based survey through SurveyMonkey is time effective for data analysis as the data can be directly exported into a spreadsheet without the need for data entry, and (7) the survey was already developed, piloted, and used to create a baseline data set.

This dissertation's on-line survey was administered through a combination approach, using email to distribute a hyperlink to the web-based survey. Participants were contacted via

email for an invitation to participate in the study. The email message contained a hyperlink to a website through which participants who agreed to participate were able to complete the survey. To increase the response rate, I sent follow-up reminder emails to participants every two weeks. In total, I sent out 3 rounds of follow-up reminder emails.

4.2.3 CEAC-developed Survey Instrument

In 2009, the Collaborative for Evaluation and Assessment Capacity (CEAC) evaluated the effectiveness of certificate programs offered by the University Center for International Studies' (UCIS) six centers. The evaluation work particularly focused on assessing students' global competency, career preparation, and personal growth. It was the prototype on which this dissertation was based. Therefore, this study used the CEAC-developed survey entitled "International Certificate Student Survey" (Trahan, Tananis, & Ciminillo, 2009), with a few changes made to better accommodate this dissertation's focus. This dissertation focuses solely on the ASC.

The Influence of the UCIS Evaluation Project on This Dissertation Study

My involvement with the UCIS evaluation project focused on data analysis and report writing. It was this evaluation project that provided me with an inspiration for this dissertation study. Some of my research interests are students' perception of their global competency, career preparation, and personal growth. In the context of the global economy, students' perception of their global competency and skills for international careers appear to be increasingly important. For this reason, I chose students' perception of their global competency and skills development for international careers to be the two major themes investigated in this dissertation study.

In 2010, I presented findings from the UCIS evaluation project at the annual American Evaluation Association (AEA) Conference. It was an initial effort to add academic hue to the UCIS evaluation project. Through the AEA presentation, I strengthened my interest in conducting a dissertation study on this topic. In reviewing literature on area studies, area studies centers, global competency, and skills for globalized careers, I gained insights into transferring my evaluation work into a dissertation study.

Survey Instrument Development

In 2008, UCIS contracted with CEAC to assist in evaluating the international certificate programs offered by the six UCIS centers. CEAC took the lead role in constructing the survey instrument for the evaluation, drawing constant feedback from point people of the six UCIS centers.

A review of center websites, CEAC's previous evaluations of the Pennsylvania Governor's School for International Education, and literature on international education were helpful in preparations for survey development. The website review provided information on the mission of each UCIS center. CEAC's evaluation of the Pennsylvania Governor's School for International Education was useful in designing questions, particularly relating to global competency. Literature on similar international programs was another important reference source for survey development (Trahan, Wang, Tananis, & Ciminillo, 2009). For example, questions regarding international experience and global competency were drawn from University of Minnesota's senior survey of study abroad, which served as part of a curriculum integration initiative to motivate students to study abroad. University of Ottawa's spring 2005 undergraduate survey was considered helpful in constructing questions relating to student characteristics and students' satisfaction with courses provided by certificate programs. In addition, Breuning and

Ishiyama's (2006) study investigating the benefits of majoring in international studies was useful in creating questions concerning foreign language capability, global competency and skills for career preparation.

CEAC completed a draft survey in March 2009 and started a revision process in collaboration with the point people of the six UCIS centers. The iterative process lasted around a month and resulted in a final survey that had gone through seven revisions. In April 2009, the survey was launched on SurveyMonkey and administered to program participants via an emailed link.

4.2.4 Research Procedures

Participants

The ASC offers a certificate program to college students, including both undergraduate and graduate students, across different disciplines at the University of Pittsburgh. This dissertation survey targets these two groups of students who enrolled in the ASC's certificate program as of March 16, 2012.

Recruitment of Participants

In March 2012, I sent a recruitment email, including a hyperlink to the on-line Asian Studies Certificate Student Survey, to 292 students participating in certificate program. In the recruitment email, I explained the risks and benefits of participating in the survey. After two weeks, I sent the first follow-up reminder email to students to encourage participation in the survey. Since this was an anonymous study and I could not identify the students who had not participated in the survey, the reminder email was sent to the whole group of students. In total, three follow-up emails were sent to students.

Figure 2 below demonstrates the number of respondents after each recruitment email was sent. Data collection was completed by the end of April 2012. 125 of 292 students participated in the survey, representing a 42.8% response rate.

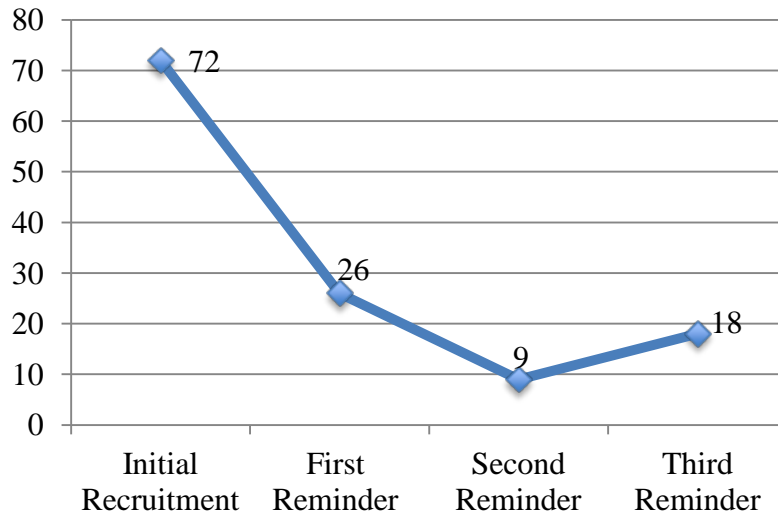


Figure 2. Survey Responses

The Organization of Survey Instrument

As stated in the previous section, this dissertation used the CEAC-developed survey entitled “International Certificate Student Survey” (Trahan, Tananis, & Ciminillo, 2009), with a few changes made. I deleted some questions that did not closely relate to the dissertation’s research questions. The whole section on personal growth was deleted. Also, I deleted some questions from the sections of students’ demographics, satisfaction with the certificate program, international experience, and foreign language capability.

Considering the more sophisticated analysis involved in this dissertation, I made modifications in question type and rating scales for a handful of questions. For example, center activity participation and students’ international experience, were changed into dichotomous

variables using “Yes or No” as response options. In addition, questions about courses taken in the ASC’s certificate program were changed into a matrix question type. Consistent with the section of global competency in the established survey, skills for international careers, was modified into a retrospective pre-post question type.² The rating scale for this question became a 4-point Likert scale (1=Strongly Disagree; 2=Disagree; 3=Agree; 4=Strongly Agree).

I added a few questions to the global competency section, as well as the section on skills for international careers. New questions to the section of global competency came from a research questionnaire conducted by William Hunter in his dissertation study entitled “Knowledge, Skills, Attitudes, and Experiences Necessary to Become Globally Competent.” Literature on skills demanded in international careers guided the creation of new questions and revision of old questions in the skills for international careers section.

In the end, the survey instrument consisted of six sections: (1) students’ characteristics and demographic information, (2) students’ satisfaction with the certificate program, (3) students’ international experience during participation in the certificate program, (4) students’ foreign language capability, (5) the impact of students’ participation in the certificate program on their perception of global competency, and (6) the impact of students’ participation in the certificate program on their perception of skills development for international careers.

Students’ Characteristics and Demographic Information. This section aimed to gather information about a student’s gender, age, race, citizenship, current school/college, degree pursuing, year beginning the degree, year planning to graduate from current program of study,

² Different than traditional pre-post questions that are asked twice in a time span, a retrospective pre-post question is designed to ask students to share information before and after their participation in the certificate program at the same time in one survey.

year beginning the certificate, credits completed in the certificate program, highest degree students plan to obtain, and enrollment status (full-time/part-time).

Students' Satisfaction with the Certificate Program. Questions in this section asked students to assess courses included in the certificate program and center activities sponsored by the ASC. The assessment of courses focused on the content of the courses available to them, quality of teaching they received, course guidance received from certificate program academic advisor, level of academic rigor, and opportunities provided to engage in educational experiences outside the classroom. In addition, students were asked to provide information about the center activities they attended, and their overall assessment of their experiences with the certificate program.

Students' International Experience. This section included questions about students' international experiences during their time in the certificate program, the longest period of time students' spent in an Asian country, and students' perception of international experiences they had through the certificate program. Students were also asked to list the city and country in which they studied, and the length of time they spent outside the U.S.

Students' Foreign Language Capability. In this section, students were asked to indicate their ability in languages other than English. Students assessed the role of the certificate program in helping them learn a foreign language, and the knowledge of a foreign language in their career choices.

Impact of Students' Participation in the Certificate Program on Their Perception of Global Competency. Retrospective pre-post questions were designed for this section to measure students' perception of global competency. These questions sought information about how students perceived the impact of the certificate program on their understanding of international

issues, appreciation of other cultures, foreign language ability, and skills to work in an international environment.

Impact of Students' Participation in the Certificate Program on Their Perception of Skills Development for International Careers. This section included retrospective pre-post questions to measure students' perceptions of knowledge and skills that prepare them for international careers. Students were asked to rate their knowledge of international issues, acquisition of a foreign language and culture, and cognitive skills.

Link to the Six Research Questions

Each section of the survey questions reflects the six research questions. Specifically, the first four research questions can be directly addressed through the first four and the last survey sections. The last two research questions are linked to questions in the global competency and skills development for international careers sections. These two questions were created to test the relationship between students' participation in the certificate program and their perception of global competency and skills development for international careers. Three sub-questions were designed under each of these two research questions, which constitute multiple independent variables in the relationship tested in this dissertation.

Figure 3 details how the last two research questions are addressed in the survey. The figure also displays the connection between multiple independent variables (courses taken in the ASC's certificate program, center activities participation, and students' international experience), and dependent variables (students' perception of their global competency, and skills development for international careers).

Stated more specifically, question 10, courses taken in the ASC's certificate program, includes a series of questions on a 4-point scale (1=Poor; 2=Fair; 3=Good; 4=Excellent).

Question 13 contains a series of questions asking about center activities that students attended and was designed as a dichotomous question (Yes or No). Similarly, question 14 was designed as a dichotomous question to provide a series of questions asking students about their international experiences. The dependent variables, student global competency (Question 23) and skills development for international careers (Question 24), were designed as retrospective pre-post questions.

Both of these two dependent variables were designed as a series of questions, covering main components of global competency and skills demanded for international careers synthesized from literature reviewed. Specifically, global competency includes questions asking students' perception of knowledge of international affairs and globalization, cross-cultural skills, foreign language proficiency, and skills to perform international task. Skills for international careers contain students' perceptions of their international knowledge, foreign language ability, cross-cultural skills, and cognitive skills including critical thinking, creativity, problem-solving, communication, and teamwork.

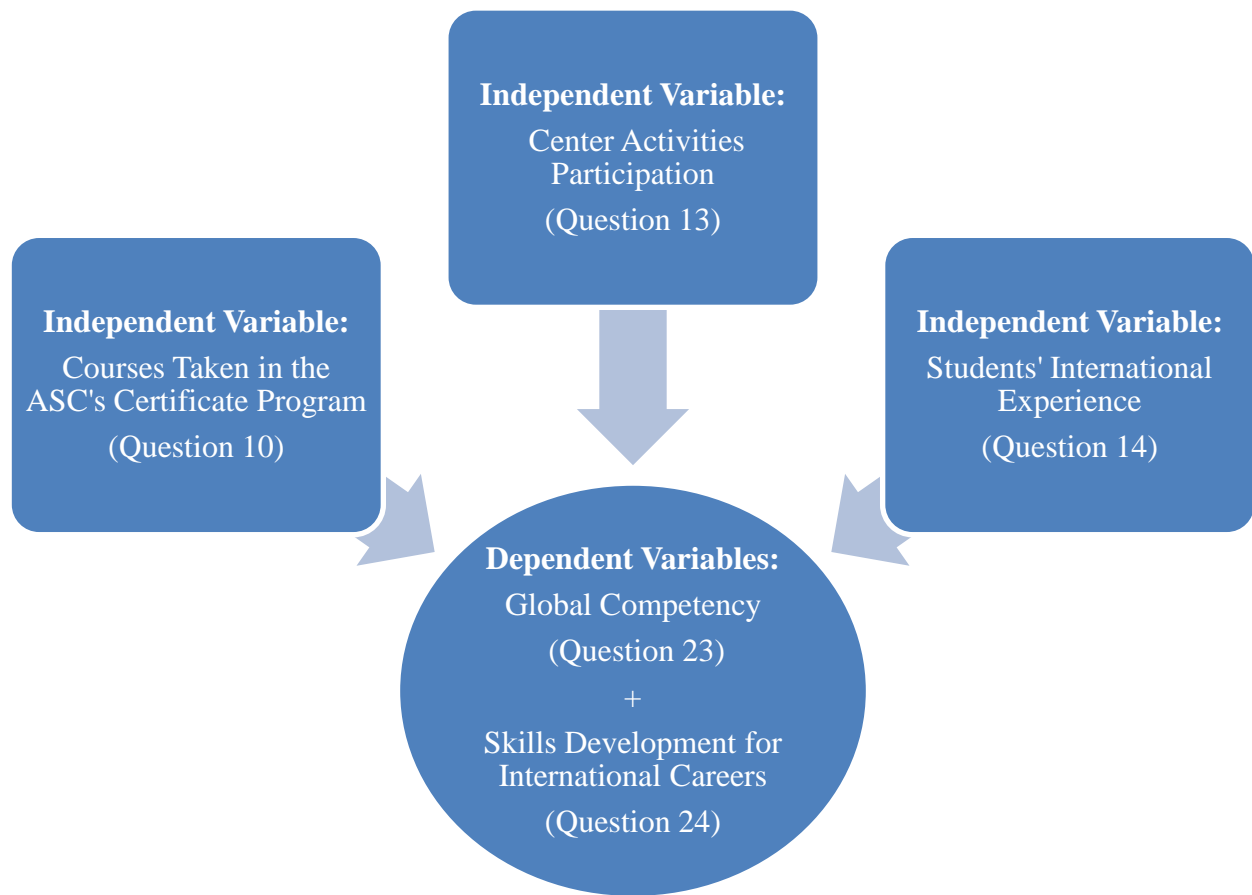


Figure 3. Connection between Research Questions and Survey Instrument

Survey Reliability

This dissertation used an established student survey, which was a collaborative product between CEAC and the point people from six centers of the UCIS at the University of Pittsburgh. CEAC reviewed center websites, literature on international education, and its previous evaluations of the Pennsylvania Governor’s School for International Education in preparation for the survey development. CEAC initiated a draft survey and sent it to the point people in each of the UCIS centers for review and feedback. The iterative process lasted around a month and resulted in a final survey that had gone through seven revisions.

A pilot test on the CEAC-developed survey has been conducted. To further ensure questions were designed in an appropriate way, the CEAC staff participated in the survey prior to

collecting data from the students. Problems identified by the CEAC staff were immediately corrected. In April 2009, each of the enrolled certificate students was asked by their academic advisors to participate in the survey. CEAC sent three follow-up emails to each certificate student to encourage participation (Trahan, Wang, Tananis, & Ciminillo, 2009). Results indicated that many respondents increased in their perspectives that they were competent or very competent after participating in their certificate program. The majority of respondents rated that their certificate program improved their knowledge and skills important to career opportunities in their major field to some degree or to high degree.

Data Analysis Procedures

This dissertation's data analysis first tested whether the sampling of 125 students represents certain characteristics of the population of 292 students. Stratified sampling method provides a theoretical framework through which the representativeness of survey respondents can be tested. I used two components of students' characteristics, the degree students are pursuing and their current school/college, to compare survey respondent proportion and population proportion in the strata.

I conducted a reliability test of the survey instrument by using Cronbach's Alpha. The dependent variables global competency and skills developed for international careers are multi-item variables. Similar to the dependent variables, one of the independent variables, courses taken in the ASC's certificate program, constitutes a series of questions. Cronbach's Alpha was used to test internal consistency between items.

I calculated frequency distributions across all questions, organized by survey sections. I then conducted a paired t-test to test if there was a significant difference in pre-post increases in

students' perception of global competency and skills for international careers between students' retrospective pre- and post-participation in the certificate program.

I conducted a disaggregated analysis, using two-way ANOVA tests. Disaggregation was based on groups categorized by degree students are pursuing, credits completion status, gender, race, and single longest duration students stayed in an Asian country, and foreign language ability. The purpose of the tests is to see if there is a statistically significant difference in the change of students' perception of their global competency and skills development for international careers from pre to post between groups.

The relationship between the independent variables, courses provided by the certificate program, center activities participation, and students' international experience, and dependent variables, students' perception of their increased global competency and improved knowledge and skills for international careers, were investigated through regression analysis. Multiple linear regression models were built to test if there is a correlation between the above-mentioned independent variables and dependent variables. Statistical Package for the Social Sciences (SPSS) 20 served as the tool for all of the analyses.

In addition, I compared findings from this dissertation survey to the student survey conducted by CEAC in 2009. Conducting a comparative analysis between two cohorts of different years strengthens the study. Consistency of findings yielded from two different groups increases the likelihood of generalizing findings to a greater population.

4.2.5 Summary

This dissertation utilized a survey research method to investigate the research questions. An on-line survey was conducted to draw information from a sample of the population (n=125).

Currently enrolled undergraduate and graduate students in the ASC's certificate program were recruited to participate in the survey.

My involvement with CEAC's UCIS evaluation project inspired this dissertation study to investigate the impact of students' participation in the ASC's certificate program on their perception of global competency and skills development for international careers. My presentation on the UCIS evaluation project at the annual American Evaluation Association conference in 2010 was preparation for transferring the evaluation project into this dissertation study.

In this study, I made changes to the CEAC-developed survey by adding a few new questions to the sections of global competency and skills for international careers, and modifying question types and rating scales for a handful of questions. The survey instrument used included six sections: (1) students' characteristics and demographic information, (2) students' satisfaction with the certificate program, (3) students' international experience during participating in the certificate program, (4) students' foreign language capability, (5) the impact of students' participation in the certificate program on their perception of global competency, and (6) the impact of students' participation in the certificate program on their perception of skills development for international careers.

The survey instrument reflects collaborative efforts between CEAC and the point people from UCIS's six centers. Center website, literature on international education, and CEAC's previous evaluations of the Pennsylvania Governor's School for International Education contributed substantially to the development of the draft survey. Review and feedback from the point people in each of the UCIS centers provided strength to the survey instrument. The survey

went through a pilot test, as students enrolled in each of UCIS center's certificate program participated in the survey.

SPSS 20 was used to analyze data. Data analysis included a test of representativeness of the sample, a reliability test of the survey instrument, frequency distributions across all questions, paired t-tests, two-way ANOVA tests, and multiple linear regressions. Furthermore, findings drawn from 2009 sample were used to compare with 2012 sample in attempts to make a generalization to a greater population.

5.0 DATA ANALYSIS

5.1 REPRESENTATIVENESS OF THE SAMPLING

Among the 292 students who were enrolled in the ASC's certificate program as of March 16, 2012, 125 students participated in the survey. If the 125 respondents sample was representative of the student population, findings should not be different from those drawn from the entire population. Stratified sampling method allows for testing for representativeness of the sample, ensuring that specific subgroups are represented in the sampling (Castillo, 2009; Black, 1999). In a stratified sampling, the proportion of each stratum (subgroup) in the sample is equal to the proportion of each stratum in the population (Easton & McColl, 1997). It should be noted that for this dissertation study, a stratified sampling method was not used to select participants for the survey; rather students self-selected into the sample by participating in the survey.

The literature of the stratified sampling method provides a theoretical basis for comparing the survey respondent proportion in the strata with the population proportion in the strata to test the representativeness of the sample. In this dissertation study, I used two elements of the population, degree students are pursuing and their current school/college, to compare the survey respondent proportion to the population proportion in the strata.

Figure 4 illustrates that the percentage of students pursuing a Bachelor's degree is 57.3% in the sample and 55.5% in the population, the percentage pursuing a Master's degree is 19.4%

in the sample and 17.5% in the population, and the percentage pursuing a doctoral degree is 23.4% in the sample and 27.1% in the population. Chi-square test for goodness of fit shows that the proportions of students pursuing a Bachelor's, Master's and doctoral degree in the sample are almost the same as in the population, $\chi^2(2) = .91, p = .63$.

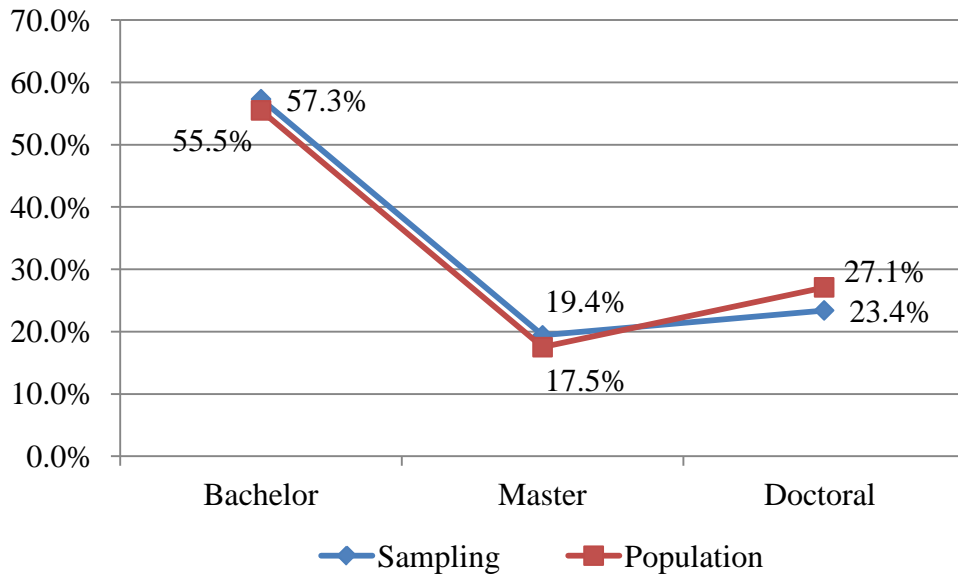


Figure 4. Distribution of Degree Students Were Pursuing

Similarly, Figure 5 shows little difference in the percentages of survey respondents in the School of Arts and Sciences, Graduate School of Public and International Affairs, School of Education, College of Business Administration, School of Medicine, School of Law, University Honors College, School of Engineering, School of Information Sciences, and School of Social Work and the percentages in the population in the aforementioned schools and colleges.

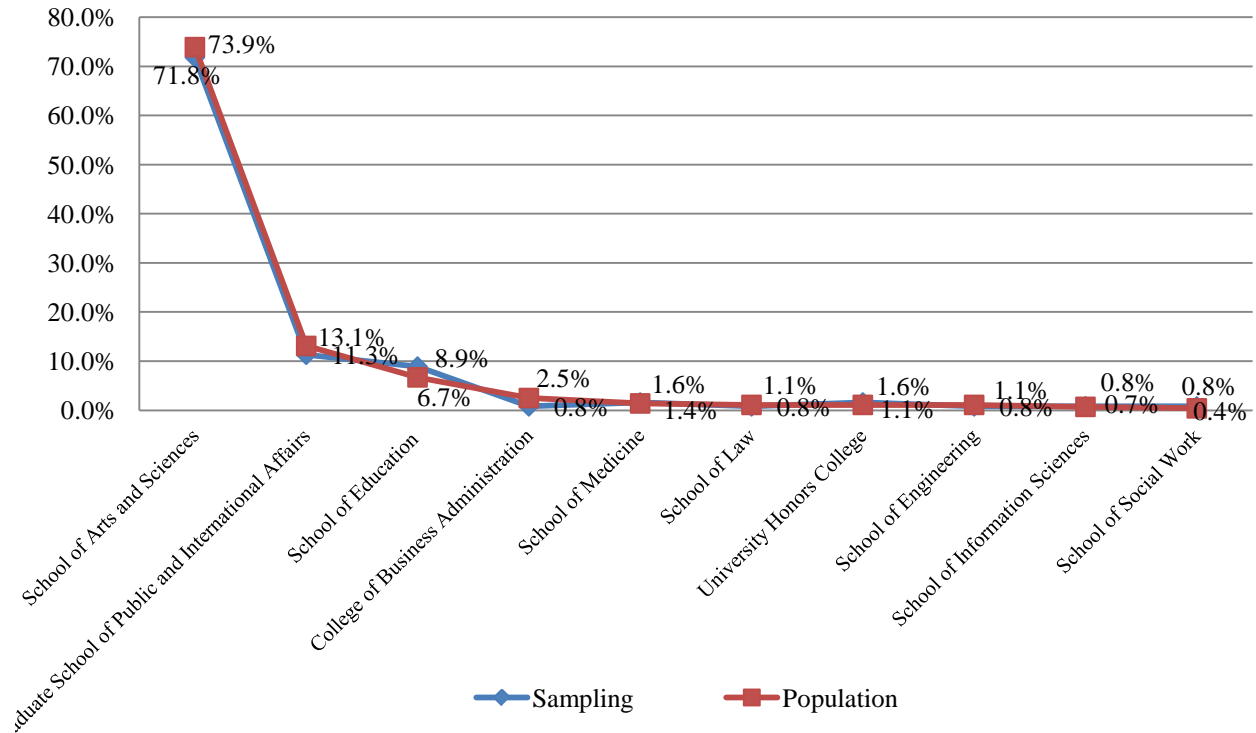


Figure 5. Distribution of Students' Current School/College

Overall, the proportions of students in the sample pursuing a Bachelor's degree, Master's or doctoral degree and enrolled in the School of Arts and Sciences, Graduate School of Public and International Affairs, School of Education, College of Business Administration, School of Medicine, School of Law, University Honors College, School of Engineering, School of Information Sciences, and School of Social Work are almost the same as the proportions in the population. Chi-square test for goodness of fit shows that the sample is representative of the population in terms of respondents' current school/college, $\chi^2(3) = 1.25, p = .74$.

The sample is stratified by the degree students are pursuing and their current school/college. Findings obtained from the sample of 125 survey respondents are expected to show little difference from findings obtained from the entire population of 292 students. Thus for certain characteristics being checked, the sample is considered representative of the population.

5.2 RELIABILITY

The dependent variables, students' perception of their global competency and skills development for international careers, were designed as multi-item questions with Likert-type scales. Similarly, the independent variable, courses taken in the ASC's certificate program, constituted a series of questions with Likert-type scales. This section tests the internal consistency of the question series that make up the above-mentioned variables.

Cronbach's Alpha tests the internal consistency, or average correlation, of a set of items in a survey instrument as a measure for its reliability (Santos, 1999). By comparing the reliability of a single-item question and a multi-item question, Gliem & Gliem (2003) found that Cronbach's Alpha provides reliability estimates for a multi-item question with Likert-type scales rather than a single-item question. The Cronbach's Alpha reliability coefficient ranges from 0 to 1. If the Cronbach's Alpha reliability coefficient is higher, the instrument is more reliable.

Cronbach's Alpha was computed at .931 for perceived global competency items on the pre-test assessment, and .929 on the post-test assessment. The scores indicate a high level of internal consistency for the set of questions regarding perceived global competency. To further determine the impact of each question in the set on overall assessment reliability, alpha scores were calculated after removing any items of concern. Only one question increased the alpha score of the pre-test from .931 to .935 after removal, and two increased the alpha score of the post-test from .929 to .930. Given the increases were minimal and the assessment was therefore a reliable measure, I did not remove these questions from a series of questions.

Cronbach's Alpha was computed at .911 for perceived skills development for international careers for the pre-test assessment and .871 on the post-test assessment. The scores indicate a high level of internal consistency for this question. Furthermore, only one question

increased the alpha score of the pre-test from .911 to .912 and post-test from .871 to .874 after removal. As the increase was minimal and the assessment was therefore a reliable measure, I did not remove this question from a series of questions.

Moreover, Cronbach's Alpha for courses taken in the ASC's certificate program was .843, demonstrating a high level of internal consistency. If removing the item of concern, no question increased the alpha score of the assessment and the assessment was reliable.

5.3 RESEARCH RESULTS FROM 2012 COHORT

This section provides a descriptive statistical analysis of the 125 respondents to the on-line survey conducted in this dissertation study. The findings are presented in the order of the survey questions, including students' characteristics and demographics, students' satisfaction with the certificate program, students' international experience during their participation in the certificate program, students' foreign language capability, the impact of students' participation in the certificate program on their perception of global competency (pre-post difference), and the impact of students participation in the certificate program on their perception of skills development for international careers (pre-post difference).

5.3.1 Students' Characteristics and Demographic Information

Data on students' characteristics and demographics include gender, age, race, citizenship, current school/college, degree pursuing, year began pursuing the degree, year projected to graduate from

current program of study, year began pursuing the certificate, credits completed in the certificate program, highest degree that students plan to obtain, and enrollment status (full-time/part-time).

There are more female students (n=76, 74.5%) than male students (n=26, 25.5%) who participated in the survey. Many respondents are between 19 and 24 years old (n=60, 60.6%), 17 respondents between 25 and 29 years old (17.1%), 12 respondents between 30 and 34 years old (12.1%), 6 respondents between 35 and 39 years old (6.0%), and 4 respondents between 40 and 44 years old (4.0%). About half of respondents are White (n=52, 51.5%), one third are Asian or Pacific Islander (n=39, 38.6%), less than ten are Multi-racial (n=9, 8.9%), and only one is Hispanic (1.0%). Almost three fourths of respondents are U.S. citizens (n=74, 72.5%), one fourth are international students (n=23, 22.5%), and a handful are U.S. permanent residents (n=5, 4.9%). International student respondents reported being citizens of a variety of countries, including China, Japan, South Korea, Hungary, India, Indonesia, Latvia, and Russia.

Regarding current school/college in which respondents were enrolled, more than 70.0% answered the School of Arts and Sciences. About 20.0% of respondents were enrolled in the Graduate School of Public and International Affairs and School of Education, respectively. A couple of respondents were enrolled in University Honors College (1.6%). Only one respondent (.8%) was enrolled in College of General Studies, College of Business Administration, School of Dental Medicine, School of Engineering, School of Information Sciences, School of Law, School of Medicine, or School of Social Work, respectively (Table 1).

Table 1. Current School/College in Which Students were Enrolled

Current School/College	n	%
School of Arts and Sciences	89	71.8%
Graduate School of Public and International Affairs	14	11.3%
School of Education	11	8.9%
University Honors College	2	1.6%
College of General Studies	1	.8%
College of Business Administration	1	.8%
School of Dental Medicine	1	.8%
School of Engineering	1	.8%
School of Information Sciences	1	.8%
School of Law	1	.8%
School of Medicine	1	.8%
School of Social Work	1	.8%
Total	124	100.0%

Regarding degree program they were pursuing, more than half of students answered that they were pursuing a Bachelor's degree (n=71, 57.3%), while about a quarter of students were pursuing a Master's degree (n=24, 19.4%) and a Doctoral degree (n=29, 23.4%), respectively. About one fourth of respondents began pursuing their degrees in 2008 (n=32, 25.8%), 2009 (n=25, 20.2%), and 2011 (n=27, 21.8%). Around 10.0% of respondents began pursuing their degrees in 2010 (n=18, 14.5%) and 2007 (n=12, 9.7%), 1.6% of respondents in 2003 (n=2), and .8% in 2000, 2002, 2005 and 2012 (n=1). In addition, less than half of respondents plan to graduate in 2012 (n=52, 43.0%), less than one third in 2013 (n=36, 29.8%), less than one fifth in 2014 (n=23, 19.0%), less than 10.0% in 2015 (n=8, 6.6%), and less than 2.0% in 2016 (n=2, 1.7%).

In terms of the year when they began participating in the Asian studies certificate program, around one fourth of respondents indicated 2011 (n=34, 27.4%) and 2010 (n=31, 25.0%), and nearly one fifth indicated 2009 (n=22, 17.7%) and 2008 (n=19, 15.3%). Less than 10.0% of respondents began participating in the Asian studies certificate program in 2012 (n=8, 6.5%) and 2007 (n=5, 4.0%), and less than 1.0% in 2000, 2002, 2003, 2005, and 2006 (n=1, .8%).

Around one fourth of the respondents indicated having already completed between 10 and 19 credits (n=30, 24.8%), less than 9 credits (n=28, 23.1%), and between 20 and 29 credits (n=28, 23.1%) in the certificate program. Less than one fifth of the respondents indicated they have already completed between 30 and 39 credits (n=20, 16.5%), and less than one tenth indicated between 50 and 59 credits (n=8, 6.6%) and between 40 and 49 credits (n=7, 5.8%).

An overwhelming majority of respondents indicated being full-time students (n=113, 91.9%), while the remaining 8.1% (n=10) indicated part-time. Many respondents cited Doctoral degree (n=54, 43.9%) and Master's degree (n=50, 40.7%) as the highest degree they planned to obtain, while less than one fifth indicated Bachelor's degree (n=19, 15.4%).

5.3.2 Students' Satisfaction with the Certificate Program

Findings regarding respondents' satisfaction with the certificate program consisted of their assessment of the overall experience in the certificate program, courses they have taken in the program, and the ASC sponsored activities they have attended. In addition, respondents provided comments on the most helpful and least helpful parts of the certificate program.

The majority of respondents rated their overall experience in the certificate program as good or excellent (n=86, 78.2%). When asked to rate courses offered in the certificate program,

many respondents gave a positive assessment. In particular, a large number of respondents rated the content of the courses available to them (n=88, 78.6%), the quality of teaching they received (n=99, 88.4%), and the level of academic rigor (n=92, 82.1%), as good or excellent (Table 2).

Table 2. Students' Rating of Courses Offered in the Certificate Program

Courses Offered in the Certificate Program (n=112)	Poor		Fair		Good		Excellent		Cumulative Frequency Percentage of Good and Excellent	
	n	%	n	%	n	%	n	%	n	%
The content of the courses available to you	4	3.6%	20	17.9%	62	55.4%	26	23.2%	88	78.6%
The quality of teaching you received	1	.9%	12	10.7%	60	53.6%	39	34.8%	99	88.4%
The selection of courses available to satisfy your certificate program	14	12.5%	27	24.1%	43	38.4%	28	25.0%	71	63.4%
The course guidance you have received from your certificate program academic advisor	10	8.9%	31	27.7%	52	46.4%	19	17.0%	71	63.4%
The level of academic rigor	2	1.8%	18	16.1%	68	60.7%	24	21.4%	92	82.1%
The quality of opportunities your course provided to engage in educational experiences outside of the classroom	8	7.1%	26	23.2%	49	43.8%	29	25.9%	78	69.6%

For six of seven ASC activities, over one third of respondents answered that they attended (Table 3). It should be noted that the majority of respondents have attended international week, and cultural festivals (n=86, 77.5%), lectures (n=72, 64.9%), and art exhibitions, musical and dramatic performances (n=65, 58.6%).

Table 3. Center Activities Students Have Attended

Center Activities (n=111)	n	%
International week, and cultural festivals	86	77.5%
Lectures	72	64.9%
Art exhibitions, musical and dramatic performances	65	58.6%
Film screenings	50	45.0%
Workshops	39	35.1%
Student research conference/symposium	38	34.2%
Educational public service/outreach programs	19	17.1%

Regarding the most helpful part of the certificate program, half of eighty-five respondents emphasized the benefits of courses taken in the certificate program. Particularly, many respondents indicated language study as useful, addressing the practical nature of learning a foreign language. Some students reported that the wide selection of courses provided them with good opportunities to, not only broaden their knowledge, but also incorporate Asian studies into their interest area.

In addition, some respondents felt scholarship opportunities were helpful in facilitating their involvement in program activities, such as study abroad. Events organized by the ASC were also regarded as helpful in that these events provide students with opportunities to network with other people and learn about interesting research topics. Also worthwhile to note, respondents cited their satisfaction with professors and the high level of teaching and guidance received.

Fifty-three respondents commented on the least helpful part of the certificate program. A large number of responses centered on course issues. For example, some respondents expressed their dissatisfaction with a low quality of courses. Some respondents indicated that courses scheduled at the same time added difficulty in their efforts for course planning. Moreover, some

respondents mentioned that courses focusing on East Asian countries predominantly outnumber those targeting countries in Southeast Asia, and Near and Middle East Asia. They felt the certificate program could be enhanced if it provided more courses focusing on areas other than East Asia. Also, some respondents were disappointed at insufficient advising services provided to guide their course selection.

5.3.3 Students' International Experience

This section demonstrates findings regarding students' international experience during their time in the certificate program, the single longest period of time students' spent in an Asian country, and students' perceptions of their international experience through the certificate program. Additionally, students were asked to list the country in which they studied, and the length of time they spent outside the U.S.

Table 4 shows respondents' international experience during their time in the certificate program. Notable findings were that a large number of respondents participated in international or intercultural activities on campus (n=94, 85.5%), traveled to an Asian area (n=78, 70.9%), and hosted, tutored or had sufficient interaction with international students (n=72, 65.5%).

Table 4. Students' International Experience during Their Time at the Certificate Program

International Experience (n=110)	n	%
Participated in international or intercultural activities on campus	94	85.5%
Traveled to Asian area	78	70.9%
Hosted, tutored or had sufficient interaction with international students	72	65.5%
Studied abroad as a graduate or undergraduate student	54	49.1%
Participated in credit-bearing internship or volunteer experience abroad	22	20.0%

According to respondents who studied abroad as a graduate or undergraduate, China, Japan, and South Korea were the countries most frequently cited. The length of time respondents studied in a foreign country ranged from one month to two and a half years.

Additionally, roughly one third of the respondents indicated their single longest period of time spent in an Asian country was either more than 12 months (n=34, 31.2%) or less than 6 months (n=33, 30.3%). About 10.0% of respondents indicated their single longest period of time spent in an Asian country was between 7 and 12 months (n=12, 11.0%) and less than 4 weeks (n=14, 12.8%). 14.7% (n=16) of respondents indicated they never spent time in an Asian country.

Regarding perception of their international experience through the certificate program, many respondents stated that their certificate program was a long-term investment in their future careers (n=68, 64.8%) and an essential part of their education (n=58, 55.2%). 21.0% (n=22) of respondents perceived their certificate program as an extra or additional cost of their education.

5.3.4 Students' Foreign Language Capability

Questions regarding foreign language capability are comprised of respondents' language ability other than English, their assessment of the role of the certificate program in helping them learn a foreign language, and their knowledge of a foreign language in their career choices.

About two thirds of the respondents grew up in a country where English is the official language (n=74, 67.3%). About one third grew up in a country where English is not the official language (n=36, 32.7%). A large number of respondents can speak more than one language (n=103, 93.6%). Regarding the highest level foreign language course taken at the University of Pittsburgh, about one fourth of respondents indicated Third Year/Conversation, Grammar and

Composition (n=26, 26.5%). The rest of respondents were evenly distributed across Second Year/Intermediate (n=19, 19.4%), First Year/Elementary (n=18, 18.4%), Graduate Level (catalog #2000 and above) (n=18, 18.4%), and Fourth Year/Advanced Undergraduate (n=17, 17.3%).

When asked to rate their ability to speak a foreign language other than English, around one fourth of respondents stated that they can read fairly complex texts, understand ordinary native speakers, and carry on a discussion (n=27, 26.2%), they are fluent speakers with the accuracy and range of an educated native speaker of the language (n=26, 25.2%), and they can read simple prose with difficulty, follow simple conversation, and use the language to get around (n=24, 23.3%). Small percentages of respondents answered they can speak with sufficient fluency and accuracy to function in most social and professional situations (n=14, 13.6%), and they can speak the foreign language, but can't read it well (n=12, 11.7%).

Regarding the role of the certificate program in helping them learn a foreign language, more than half of the respondents felt it was helpful or very helpful (n=57, 52.3%), while less than one third felt it was somewhat helpful or not very helpful (n=31, 28.4%). Less than one fifth indicated "N/A" (n=21, 19.3%). It is notable that a large number of respondents agreed or strongly agreed that knowledge of other language will help them to get a job in the career that they are likely to pursue (n=91, 84.3%), while a small number disagreed or strongly disagreed (n=17, 15.8%).

5.3.5 The Impact of Participation in the Certificate Program on Students' Perception of Their Global Competency

This section provides findings regarding students' perception of their global competency before and after their participation in the certificate program. Questions are designed as retrospective

pre- and post-questions, which allow students to respond at the same time in one survey. Students were asked to rate their level of global competency in four major areas: understanding of international issues, appreciation of other cultures, foreign language ability, and skills to work in an international environment. Table 5 shows respondents' rating of their global competency in the four major areas, before and after their participation in the certificate program. The pre-post comparison suggests a shift from "Not Very Competent" and "Somewhat Competent" before participation to "Competent" and "Very Competent" after participation.

Table 5. Students' Perception of Global Competency Before and After Participation in the Certificate Program

Perceived Global Competency		Cumulative Frequency Percentage of Not Very Competent and Somewhat Competent		Cumulative Frequency Percentage of Competent and Very Competent	
		n	%	n	%
I am knowledgeable about how history has shaped the global problems and issues of today.	Now	27	25.7%	78	74.3%
	Before	63	60.0%	42	40.0%
I am knowledgeable about contemporary international and global issues.	Now	32	30.5%	73	69.6%
	Before	61	58.1%	44	41.9%
I understand how social forces (economic, political, cultural, etc.) impact current global issues and problems.	Now	29	27.6%	76	72.4%
	Before	68	64.7%	37	35.3%
I am knowledgeable about international humanities (arts, literature, music, film, etc.).	Now	37	35.3%	68	64.8%
	Before	70	66.6%	35	33.4%
I understand how the processes of globalization affect national interests.	Now	33	31.4%	72	68.6%
	Before	69	65.7%	36	34.3%
I understand how policy decisions on international issues are made.	Now	64	61.0%	41	39.0%
	Before	82	78.1%	23	21.9%
I am able to speak and understand at least one other language in the area covered by my certificate program.	Now	33	31.5%	72	68.5%
	Before	73	69.5%	32	30.4%
I am able to critically compare my culture with others.	Now	13	12.4%	92	87.6%
	Before	51	48.5%	54	51.4%
I understand the complexities of intercultural relationships and communication.	Now	21	20.0%	84	80.0%
	Before	49	46.7%	56	53.3%
I am good at seeing issues from another person or group's perspective.	Now	14	13.3%	91	86.7%
	Before	36	34.3%	69	65.7%
I am good at assessing intercultural performance in social and business settings.	Now	41	39.0%	64	60.9%
	Before	69	65.7%	36	34.3%
I am prepared to participate in social and business settings in the area covered by my certificate program.	Now	34	32.4%	71	67.6%
	Before	75	71.4%	30	28.6%
I am open to experiences, including those that could be emotionally challenging.	Now	15	14.3%	90	85.7%
	Before	63	34.3%	69	65.7%
I am prepared to engage in academic research and writing.	Now	25	23.8%	80	76.2%
	Before	58	55.2%	47	44.8%

It is important to note that more respondents rated their level of global competency as “Competent” or “Very Competent” on post-items (Table 6). The pre-post increases in the percentage of respondents who rated their level of global competency as “Competent” or “Very Competent” ranged from 17.1% in the question “I understand how policy decisions on international issues are made” to 39.0% in the question “I am prepared to participate in social and business settings in the area covered by my certificate program.”

It is also worthwhile to mention that over 30.0% more respondents rated their level of global competency as “Competent” or “Very Competent” on eight out of fourteen post-items. The eight questions in which respondents rated considerably higher on post-test assessments are:

- I am knowledgeable about international humanities (arts, literature, music, film, etc.) (31.4%).
- I am prepared to engage in academic research and writing (31.4%).
- I understand how the processes of globalization affect national interests (34.3%).
- I am knowledgeable about how history has shaped the global problems and issues of today (34.3%).
- I am able to critically compare my culture with others (36.2%).
- I understand how social forces (economic, political, cultural, etc.) impact current global issues and problems (37.1%).
- I am able to speak and understand at least one other language in the area covered by my certificate program (38.1%).
- I am prepared to participate in social and business settings in the area covered by my certificate program (39.0%).

Table 6. Percentage of Students Who Rated Aspects of Global Competency as “Competent” or “Very Competent” Before and After Participation in the Certificate Program

Perceived Global Competency	Pre-Test	Post-Test	Pre-Post Increase
I am knowledgeable about how history has shaped the global problems and issues of today.	40.0%	74.3%	34.3%
I am knowledgeable about contemporary international and global issues.	41.9%	69.6%	27.7%
I understand how social forces (economic, political, cultural, etc.) impact current global issues and problems.	35.3%	72.4%	37.1%
I am knowledgeable about international humanities (arts, literature, music, film, etc.).	33.4%	64.8%	31.4%
I understand how the processes of globalization affect national interests.	34.3%	68.6%	34.3%
I understand how policy decisions on international issues are made.	21.9%	39.0%	17.1%
I am able to speak and understand at least one other language in the area covered by my certificate program.	30.4%	68.5%	38.1%
I am able to critically compare my culture with others.	51.4%	87.6%	36.2%
I understand the complexities of intercultural relationships and communication.	53.3%	80.0%	26.7%
I am good at seeing issues from another person or group’s perspective.	65.7%	86.7%	21.0%
I am good at assessing intercultural performance in social and business settings.	34.3%	60.9%	26.6%
I am prepared to participate in social and business settings in the area covered by my certificate program.	28.6%	67.6%	39.0%
I am open to experiences, including those that could be emotionally challenging.	65.7%	85.7%	20.0%
I am prepared to engage in academic research and writing.	44.8%	76.2%	31.4%

5.3.6 The Impact of Participation in the Certificate Program on Students' Perceptions of Their Skills Development for International Careers

Findings in this section focus on students' perception of knowledge and skills that prepare them for international careers. Specifically, students were asked to rate their knowledge of international issues, acquisition of a foreign language and culture, and cognitive skills. Similar to the previous section, this section utilizes retrospective pre-post questions to measure students' perception of improvement in their knowledge and skills for international careers as a result of their participation in the certificate program.

Table 7 shows that there is a noticeable increase in respondents' rate of agreement on the fourteen post-items. Specifically, more respondents agreed or strongly agreed and fewer disagreed or strongly disagreed on all of the fourteen post-items.

Table 7. Students' Perception of Knowledge and Skills for International Careers Before and After Participation in the Certificate Program

Perceived Knowledge and Skills for International Careers		Cumulative Frequency Percentage of Strongly Disagree and Disagree		Cumulative Frequency Percentage of Agree and Strongly Agree	
		n	%	n	%
I am knowledgeable about current international issues.	Now	15	14.7%	87	85.3%
	Before	41	40.2%	61	59.8%
I am able to speak and understand a second language.	Now	5	4.9%	97	95.1%
	Before	38	37.2%	64	62.7%
I am knowledgeable about cultures other than my own.	Now	6	5.9%	96	94.1%
	Before	29	28.4%	73	71.6%
I am knowledgeable about technical and professional practices in other countries.	Now	35	34.3%	67	65.7%
	Before	63	61.7%	39	38.2%
I am able to work with people whose beliefs, values, and worldviews differ from my own.	Now	0	.0%	102	100.0%
	Before	7	6.9%	95	93.2%
I am able to lead a group.	Now	14	13.7%	88	86.2%
	Before	32	31.4%	70	68.7%
I am able to generate ideas.	Now	0	.0%	102	100.0%
	Before	11	10.8%	91	89.3%
I am able to work on a team.	Now	3	2.9%	99	97.1%
	Before	12	11.7%	90	88.2%
I am able to draw conclusions from data.	Now	2	2.0%	100	98.0%
	Before	19	18.6%	83	81.4%
I am able to generate solutions to problems.	Now	3	2.9%	99	97.1%
	Before	13	12.8%	89	87.2%
I am able to communicate with people effectively.	Now	5	4.9%	97	95.1%
	Before	16	15.6%	86	84.3%
I am able to manage time wisely.	Now	19	18.6%	83	81.4%
	Before	36	35.3%	66	64.7%
I am able to access information from a variety of external sources.	Now	2	2.0%	100	98.0%
	Before	30	29.4%	72	70.6%
I am able to succeed in an academic or professional career that involves working with complex information.	Now	8	7.8%	94	92.2%
	Before	24	23.5%	78	76.4%

The pre-post increases in the percentage of respondents who agreed or strongly agreed on the knowledge and skills for international careers ranged from 6.8% for the question “I am able to work with people whose beliefs, values, and worldviews differ from my own” to 32.4% for the question “I am able to speak and understand a second language” (Table 8). Additionally, five aspects of knowledge and skills were rated agree or strongly agree by over 20.0% more students after their participation in the certificate program:

- I am knowledgeable about cultures other than my own (22.5%).
- I am knowledgeable about current international issues (25.5%).
- I am able to access information from a variety of external sources (27.4%).
- I am knowledgeable about technical and professional practices in other countries (27.5%).
- I am able to speak and understand a second language (32.4%)

The last question in this section asks whether students planned/plan to pursue a job relating to international locations, content, and/or foreign languages prior to and after their experience with the certificate program. 76.2% of respondents answered “Yes” after their experience in the ASC certificate program, compared with 64.4% of respondents answering “Yes” prior to their experience in the program (Table 9). The percentages of respondents who answered “Unsure” prior to and after their experience with the certificate program did not show much difference.

Table 8. Percentage of Students Who "Agreed" or "Strongly Agreed" Their Skills for International Careers Before and After Participation in the Certificate Program

Perceived Knowledge and Skills for International Careers	Pre-Test	Post-Test	Pre-Post Increase
I am knowledgeable about current international issues.	59.8%	85.3%	25.5%
I am able to speak and understand a second language.	62.7%	95.1%	32.4%
I am knowledgeable about cultures other than my own.	71.6%	94.1%	22.5%
I am knowledgeable about technical and professional practices in other countries.	38.2%	65.7%	27.5%
I am able to work with people whose beliefs, values, and worldviews differ from my own.	93.2%	100.0%	6.8%
I am able to lead a group.	68.7%	86.2%	17.5%
I am able to generate ideas.	89.3%	100.0%	10.7%
I am able to work on a team.	88.2%	97.1%	8.9%
I am able to draw conclusions from data.	81.4%	98.0%	16.6%
I am able to generate solutions to problems.	87.2%	97.1%	9.9%
I am able to communicate with people effectively.	84.3%	95.1%	10.8%
I am able to manage time wisely.	64.7%	81.4%	16.7%
I am able to access information from a variety of external sources.	70.6%	98.0%	27.4%
I am able to succeed in an academic or professional career that involves working with complex information.	76.4%	92.2%	15.8%

Table 9. Students' Plan to Pursue an International Job Before and After Participation in the Certificate Program

	Yes	No	Unsure
Prior to my experience in the Asian studies certificate program, I planned to pursue a job related to international locations, content and/or foreign languages.	64.4% (n=65)	20.8% (n=21)	14.9% (n=15)
Now, after experience in the Asian studies certificate program, I plan to pursue a job related to international locations, content and/or foreign languages.	76.2% (n=77)	5.9% (n=6)	17.8% (n=18)

5.4 PAIRED T-TESTS

Using the retrospective pre-post design, a paired t-test was performed to test for a statistically significant difference in pre-post increases in students' perception of their global competency and skills development for international careers before and after their participation in the certificate program. In total, one hundred and five respondents completed the pre- and post-question series for global competency, and one hundred and two students completed the pre- and post-question series for skills development for international careers. The paired t-tests show a statistically significant increase in students' perception of their global competency and skills development for international careers after their participation in the certificate program.

Table 10 shows mean scores and t-test results for respondents' pre and post perception of their global competency. Respondents' mean scores increased in all of the questions from pre-to-post. The pre-post increases were statistically significant.

Table 10. *t*-test Results Comparing Pre-tests and Post-tests on Students' Perception of Global Competency

Perceived Global Competency	Pre		Post		Pre-post Increase in Mean Score	<i>t</i>
	Mean	Standard Deviation	Mean	Standard Deviation		
I am knowledgeable about how history has shaped the global problems and issues of today.	2.26	.971	2.95	.789	0.70	7.19
I am knowledgeable about contemporary international and global issues.	2.24	1.024	2.90	.919	0.66	6.95
I understand how social forces (economic, political, cultural, etc.) impact current global issues and problems.	2.14	.985	2.91	.900	0.77	7.53
I am knowledgeable about international humanities (arts, literature, music, film, etc.).	2.16	.992	2.85	.938	0.69	6.75
I understand how the processes of globalization affect national interests.	2.05	1.032	2.87	.991	0.82	8.03
I understand how policy decisions on international issues are made.	1.70	.898	2.24	.936	0.53	6.75
I am able to speak and understand at least one other language in the area covered by my certificate program.	1.98	1.047	2.88	.958	0.90	7.97
I am able to critically compare my culture with others.	2.56	.980	3.33	.793	0.77	7.34
I understand the complexities of intercultural relationships and communication.	2.56	.980	3.19	.845	0.63	6.90
I am good at seeing issues from another person or group's perspective.	2.83	.914	3.30	.748	0.48	5.56
I am good at assessing intercultural performance in social and business settings.	2.08	.958	2.63	.812	0.55	6.81
I am prepared to participate in social and business settings in the area covered by my certificate program.	1.95	.924	2.81	.878	0.86	8.92
I am open to experiences, including those that could be emotionally challenging.	2.89	.974	3.41	.805	0.52	5.83
I am prepared to engage in academic research and writing.	2.30	1.046	3.10	.936	0.80	7.61

Note. All *t* statistics are significant at $p < .001$.

In terms of respondents' perception of their knowledge and skills for international careers, respondents' mean scores increased on all of the questions pre-to-post. The pre-post increases were statistically significant (Table 11).

Table 11. *t*-test Results Comparing Pre-tests and Post-tests on Students' Perception of Skills for International Careers

Perceived Knowledge and Skills for International Careers	Pre		Post		Pre-post Increase in Mean Score	<i>t</i>
	Mean	Standard Deviation	Mean	Standard Deviation		
I am knowledgeable about current international issues.	2.57	.790	3.09	.646	0.52	6.73
I am able to speak and understand a second language.	2.71	.981	3.38	.646	0.68	7.76
I am knowledgeable about cultures other than my own.	2.93	.836	3.51	.641	0.58	7.53
I am knowledgeable about technical and professional practices in other countries.	2.29	.863	2.85	.750	0.56	7.78
I am able to work with people whose beliefs, values, and worldviews differ from my own.	3.33	.635	3.72	.453	0.38	6.29
I am able to lead a group.	2.84	.829	3.19	.685	0.34	4.78
I am able to generate ideas.	3.15	.651	3.46	.501	0.31	5.17
I am able to work on a team.	3.19	.714	3.49	.558	0.30	5.03
I am able to draw conclusions from data.	3.07	.693	3.43	.536	0.36	5.58
I am able to generate solutions to problems.	3.16	.656	3.37	.544	0.22	3.41
I am able to communicate with people effectively.	3.06	.701	3.40	.585	0.34	5.89
I am able to manage time wisely.	2.77	.743	3.06	.687	0.28	3.97
I am able to access information from a variety of external sources.	2.96	.770	3.51	.540	0.55	7.36
I am able to succeed in a professional career that involves working with complex information.	2.86	.797	3.37	.628	0.51	6.95

Note. All *t* statistics are significant at $p < .001$.

5.5 COMPARISON OF 2012 COHORT TO 2009 COHORT

It is useful to compare findings obtained from the 2009 cohort with findings for this study. One hundred and forty-two respondents represent the 2009 cohort, which demonstrates a similar sample size as the 2012 cohort consisting of one hundred and twenty-five students. In this section, the comparative analysis is focused on students' characteristics and demographics (current school/college, degree pursuing, gender, and race), students' satisfaction with the certificate program, students' international experience during their participation in the certificate program, students' foreign language capability, the impact of students' participation in the certificate program on their perception of global competency, and the impact of students' participation in the certificate program on their perception of skills development for international careers. Only questions that appeared in both the 2009 survey and the 2012 survey are compared.

5.5.1 Students' Characteristics and Demographic Information

The following tables compare 2009 data and 2012 data in respondents' characteristics and demographics, including current school/college, degree they were pursuing, gender, and race. 2009 data and 2012 data are similar in the percentages of respondents in different schools/colleges. The biggest difference is that 4.8% more 2009 respondents are in College of Business Administration (Table 12).

Table 12. Comparison of Data regarding Current School/College

Current School/College	2009 Data		2012 Data	
	n	%	n	%
School of Arts and Sciences	103	72.5%	89	71.8%
Graduate School of Public and International Affairs	16	11.3%	14	11.3%
School of Education	9	6.3%	11	8.9%
University Honors College	1	.7%	2	1.6%
College of General Studies	1	.7%	1	.8%
College of Business Administration	8	5.6%	1	.8%
School of Dental Medicine	0	.0%	1	.8%
School of Engineering	0	.0%	1	.8%
School of Information Sciences	1	.7%	1	.8%
School of Law	1	.7%	1	.8%
School of Medicine	0	.0%	1	.8%
School of Social Work	0	.0%	1	.8%
School of Health and Rehabilitation Sciences	1	.7%	0	.0%
School of Nursing	1	.7%	0	.0%
Total	142	100.0%	124	100.0%

2009 data and 2012 data show similar results in the degree the respondents were pursuing (Table 13). There are slightly more male respondents (3.7%) participating in the 2009 survey, while slightly more females (3.7%) participating in the 2012 survey (Table 14).

Race data do not generate big differences between 2009 and 2012 survey. A similar percentage of respondents in both 2009 survey and 2012 survey are Hispanic and multi-racial. More White students (5.2%) and black students (3.3%) participated in the 2009 survey than in the 2012 survey, while slightly more Asian students (8.6%) participated in 2012 (Table 15).

Table 13. Comparison Data regarding Degree Program Students were Pursuing

Academic Level	2009 Data		2012 Data	
	n	%	n	%
Bachelor's degree	82	58.6%	71	57.3%
Master's degree	29	20.7%	24	19.4%
Doctoral degree	29	20.7%	29	23.4%
Total	140	100.0%	124	100.0%

Table 14. Comparison Data regarding Gender

Gender	2009 Data		2012 Data	
	n	%	n	%
Female	85	70.8%	76	74.5%
Male	35	29.2%	26	25.5%
Total	120	100.0%	102	100.0%

Table 15. Comparison Data regarding Race

Gender	2009 Data		2012 Data	
	n	%	n	%
White	68	56.7%	52	51.5%
Asian or Pacific Islander	36	30.0%	39	38.6%
Multi-racial	8	6.7%	9	8.9%
Hispanic	1	.8%	1	1.0%
Black	4	3.3%	0	.0%
Other	3	2.5%	0	.0%
Total	120	100.0%	101	100.0%

5.5.2 Students' Satisfaction with the Certificate Program

The percentage of 2009 respondents (85.3%) who rated their overall experience in the certificate program as good or excellent is similar to the percentage of students in 2012 data (78.2%). Regarding students' satisfaction with courses offered in the certificate program, questions administered in two surveys were designed different formats. The six questions in the 2009 survey were designed as single questions, using two different 4-point Likert scales. The first four questions were designed as single questions, using two different 4-point Likert scales. The first four questions were designed on a scale with 1 being Poor and 4 being Excellent, yet the last two with 1 being Very low and 4 being High. In the 2012 survey, the six questions were designed as matrix questions with a same 4-point Likert scale with 1 being Poor and 4 being Excellent.

The comparison of findings between 2009 and 2012 data are reflected in the Cumulative Frequency Percentage (CFP) of students who chose the two highest ratings. Although the differences are miniscule, the percentage of 2009 respondents who rated good or excellent is higher than the percentage of 2012 respondents in all questions, except on the question "the level of academic rigor" (2009, 81.6%; 2012, 82.1%) (Table 16).

Specifically, 10.6% more 2009 respondents rated the content of the courses available as good or excellent, the quality of teaching they received were rated by 0.9% more 2009 respondents; the selection of courses available to satisfy their certificate program were rated by 2.8% more 2009 students; the course guidance they have received from their certificate program academic advisor were rated by 3.0% more 2009 respondents; and the quality of opportunities their course provided to engage in educational experiences outside of the classroom were rated by 3.5% more 2009 respondents.

Table 16. Comparison Data regarding Courses Offered in the Certificate Program

Courses Offered in the Certificate Program		Cumulative Frequency Percentage of Poor and Fair		Cumulative Frequency Percentage of Good and Excellent	
		n	%	n	%
The content of the courses available to you	2009	14	10.7%	116	89.2%
	2012	24	21.5%	88	78.6%
The quality of teaching you received	2009	14	10.8%	116	89.3%
	2012	13	11.6%	99	88.4%
The selection of courses available to satisfy your certificate program	2009	44	33.8%	86	66.2%
	2012	41	36.6%	71	63.4%
The course guidance you have received from your certificate program academic advisor	2009	43	33.6%	85	66.4%
	2012	41	36.6%	71	63.4%
The level of academic rigor		Cumulative Frequency Percentage of Very Low and Low		Cumulative Frequency Percentage of Adequate and High	
		n	%	n	%
	2009	24	18.4%	104	81.6%
		Cumulative Frequency Percentage of Poor and Fair		Cumulative Frequency Percentage of Good and Excellent	
		n	%	n	%
	2012	20	17.9%	92	82.1%
The quality of opportunities your course provided to engage in educational experiences outside of the classroom		Cumulative Frequency Percentage of Very Low and Low		Cumulative Frequency Percentage of Adequate and High	
		n	%	n	%
	2009	35	26.9%	95	73.1%
		Cumulative Frequency Percentage of Poor and Fair		Cumulative Frequency Percentage of Good and Excellent	
		n	%	n	%
	2012	34	30.3%	78	69.6%

Regarding center activities that students attended, the 2012 data shows greater percentages of respondents reporting “Yes” to all of the center activities (Table 17). Notably, 32.4% more 2012 respondents cited attending international week and cultural festivals, 29.7% more 2012 respondents cited attending art exhibitions, musical and dramatic performance, and 28.1% more 2012 respondents cited attending workshops.

Table 17. Comparison Data regarding Center Activities Students Have Attended

Center Activities	2009 Data		2012 Data	
	n	%	n	%
International week, and cultural festivals	64	45.1%	86	77.5%
Lectures	76	53.5%	72	64.9%
Art exhibitions, musical and dramatic performances	41	28.9%	65	58.6%
Film screenings	51	35.9%	50	45.0%
Workshops	10	7.0%	39	35.1%
Student research conference/symposium	31	21.8%	38	34.2%
Educational public service/outreach programs	10	7.0%	19	17.1%

5.5.3 Students’ International Experience

Comparison of students’ international experience data shows that a greater number of 2012 respondents indicated “Yes” to all of the international experience items than did 2009 respondents (Table 18). The percentages of 2012 respondents is 26.3% higher than the percentage of 2009 respondents in participation in international or intercultural activities on campus, 27.9% higher in travelling to Asian area/another country, and 20.2% higher in studying abroad as a graduate or undergraduate student.

Table 18. Comparison Data regarding Students' International Experience

International Experience	2009 Data		2012 Data	
	n	%	n	%
Participated in international or intercultural activities on campus	84	59.2%	94	85.5%
Traveled to Asian area/another country	61	43.0%	78	70.9%
Hosted, tutored or had sufficient interaction with international students	83	58.5%	72	65.5%
Studied abroad as a graduate or undergraduate student	41	28.9%	54	49.1%
Participated in credit-bearing internship or volunteer experience abroad	13	9.2%	22	20.0%

Table 19 compares 2009 and 2012 students' perceptions of their international experience through their Asian studies certificate. The comparison data indicate slightly higher numbers of 2012 respondents reporting their international experience through their Asian studies certificate as a long-term investment in their future career, and an essential part of their education.

Table 19. Comparison Data regarding Student Perception of International Experience

Perception of International Experience	2009 Data		2012 Data	
	n	%	n	%
A long-term investment in my future career	86	60.6%	68	64.8%
An essential part of my education	69	48.6%	58	55.2%
An extra, or additional cost of my education	29	20.4%	22	21.0%

5.5.4 Students' Foreign Language Capability

Comparison data in Table 20 shows that a smaller percentage of 2009 respondents grew up in a country where English is the official language (2009, 63.8%; 2012, 67.3%), and speak more than one language (2009, 81.9%; 2012, 93.6%).

Table 20. Comparison Data regarding Students' Foreign Language Background

		2009 Data		2012 Data	
		n	%	n	%
Grew up in a country where English is the official language	Yes	81	63.8%	74	67.3%
	No	46	36.2%	36	32.7%
Speak more than one language	Yes	104	81.9%	103	93.6%
	No	23	18.1%	7	6.4%

Differences in the percentages of 2009 and 2012 respondents' rating of their foreign language ability are small, ranging from 2.1% to 9.8% (Table 21). The percentages of 2009 and 2012 respondents at different levels of their foreign language ability are generally low. When comparing students' advanced level of foreign language ability, 19.2% of 2009 respondents reported they can speak with sufficient fluency and accuracy to function in most social and professional situations, as opposed to 13.6% of 2012 students. Also, 23.1% of 2009 respondents reported they are fluent speakers with the accuracy and range of an educated native speaker of the language, as opposed to 25.2% of 2012 respondents.

Table 21. Comparison Data regarding Students' Foreign Language Ability

Foreign Language Ability	2009 Data		2012 Data	
	n	%	n	%
I can read fairly complex texts, understand ordinary native speakers, and carry on a discussion.	31	29.8%	27	26.2%
I am a fluent speaker with the accuracy and range of an educated native speaker of the language.	24	23.1%	26	25.2%
I can read simple prose with difficulty, follow simple conversation, and use the language to get around.	27	26.0%	24	23.3%
I can speak with sufficient fluency and accuracy to function in most social and professional situations.	20	19.2%	14	13.6%
I can speak the foreign language, but can't read it well.	2	1.9%	12	11.7%

Table 22 indicates the percentage of 2009 respondents who regarded their participation in the certificate program as helpful or very helpful for learning a foreign language is nearly equal to the percentage of 2012 respondents.

Table 22. Comparison Data regarding the Helpfulness of the Certificate Program

		Not Very Helpful		Somewhat Helpful		Helpful		Very Helpful		N/A	
		n	%	n	%	n	%	n	%	n	%
How helpful was your participation in the certificate program for learning a foreign language?	2009	18	14.4%	21	16.8%	31	24.8%	34	27.2%	21	16.8%
	2012	11	10.1%	20	18.3%	31	28.4%	26	23.9%	21	19.3%

Regarding the highest level of foreign language course students have taken, the percentages of 2009 and 2012 respondents show little difference. 8.5% more 2009 respondents have taken a second year/intermediate course, and 5.2% more have taken a fourth year/advanced course (Table 23). On the contrary, 9.4% more 2012 respondents have taken third year/conversation, grammar and composition, and 4.9% more have taken a graduate level course (catalog #2000 and above).

Table 23. Comparison Data regarding Highest Level of Foreign Language Courses

Highest Level of Foreign Language Course	2009 Data		2012 Data	
	n	%	n	%
Third year/Conversation, Grammar and Composition	19	17.1%	26	26.5%
Second year/Intermediate	31	27.9%	19	19.4%
First year/Elementary	21	18.9%	18	18.4%
Graduate level (catalog #2000 and above)	15	13.5%	18	18.4%
Fourth year/Advanced	25	22.5%	17	17.3%

Table 24 compares 2009 and 2012 data for students’ perceptions that knowledge of other language helps them to secure a job in the career that they are likely to pursue: 93.5% of 2009 respondents agreed or strongly agreed compared to 84.3% of 2012 respondents.

Table 24. Comparison Data regarding Helpfulness of Other Language in Jobs

		Strongly Disagree		Disagree		Agree		Strongly Agree		Cumulative Frequency Percentage of Agree and Strongly Agree	
		n	%	n	%	n	%	n	%	n	%
Knowledge of other language will help you to get a job in the career that you are likely to pursue	2009	1	.8%	7	5.6%	32	25.8%	84	67.7%	116	93.5%
	2012	10	9.3%	7	6.5%	37	34.3%	54	50.0%	91	84.3%

5.5.5 The Impact of Participation in the Certificate Program on Students' Perception of Their Global Competency

Eleven questions about students’ perceptions of their global competency are used on both the 2009 and 2012 survey. Comparing the percentage of respondents who rated their ratings of global competency as “Competent” or “Very Competent” on post assessments, 2012 respondents demonstrated more pre-post increases in seven questions than 2009 respondents. Respondents in these two years show noticeable variations in pre-post increases in two of eleven questions (Table 25). Specifically, the two questions with the largest difference in respondent answers from 2009 to 2012 were “I am able to speak and understand at least one other language in the area covered by my certificate program” (10.6%) and “I am able to critically compare my culture with others” (13.7%). There was a significant difference in respondents’ answer “I am able to

critically compare my culture with others” between the 2009 cohort and the 2012 cohort, $z = -2.46$, $p < .05$.

Table 25. Comparison of Percentage of Students who Increased Their Ratings of Global Competency as “Competent” or “Very Competent” on Post Assessments

Perceived Global Competency	2009 Data	2012 Data	Difference	z
I am knowledgeable about how history has shaped the global problems and issues of today.	32.5%	34.3%	1.8%	-.31
I am knowledgeable about contemporary international and global issues.	36.6%	27.6%	-9.0%	1.57
I understand how social forces (economic, political, cultural, etc.) impact current global issues and problems.	37.5%	37.2%	-0.3%	.05
I am knowledgeable about international humanities (arts, literature, music, film, etc.).	25.9%	31.5%	5.6%	-1.01
I understand how the processes of globalization affect national interests.	27.5%	34.3%	6.8%	-1.20
I understand how policy decisions on international issues are made.	18.4%	17.1%	-1.3%	.28
I am able to speak and understand at least one other language in the area covered by my certificate program.	27.5%	38.1%	10.6%	-1.85
I am able to critically compare my culture with others.	22.5%	36.2%	13.7%	-2.46*
I understand the complexities of intercultural relationships and communication.	30.8%	26.7%	-4.1%	.74
I am good at seeing issues from another person or group’s perspective.	15.1%	21.0%	5.9%	-1.26
I am prepared to engage in academic research and writing.	24.2%	31.4%	7.2%	-1.31

* $p < .05$.

5.5.6 The Impact of Participation in the Certificate Program on Students' Perceptions of Their Skills Development for International Careers

Eleven questions about students' perceptions of their skills development for international careers are used in both 2009 and 2012 surveys. In the 2009 survey, these questions were designed in a way that students were asked to rate the degree to which their certificate program improved their knowledge and skills on a 4-point Likert scale (1 = Not at all; 2 = Minimal degree; 3 = Some degree; 4 = High degree). The 2012 survey, however, used a retrospective pre-post design for these questions, rating students' agreement on their knowledge and skills (1= Strongly Disagree; 2 = Disagree; 3 = Agree; 4 = Strongly Agree). For the purpose of comparison, the two highest ratings from the 2009 items are compared to the two highest rating on the 2012 post items.

The following Table 26 shows that on post assessments the percentages of 2012 respondents who chose the two highest ratings in their perception of their knowledge and skills for international careers are greater for all the items than 2009 respondents, excluding knowledge about current international issues. More specifically, over 20% more 2012 respondents chose the two highest ratings in the six aspects of knowledge and skills. The three aspects of knowledge of skills with the largest differences in respondent answers from 2009 to 2012 were "I am able to lead a group" (28.5%), "I am able to draw conclusions from data" (29.8%), and "I am able to work on a team" (35.4%). There were significant differences in respondents' answers in nine questions ($ps < .001$), yet no significant differences in respondents' answers in two questions "I am knowledgeable about current international issues" and "I am knowledgeable about cultures other than my own" between the 2009 cohort and the 2012 cohort.

Table 26. Comparison of Cumulative Frequency Percentage of the Top Two Ratings in Students' Skills for International Careers after Participation in the Program

Perceived Knowledge and Skills for International Careers	2009 Data	2012 Data	Difference	<i>z</i>
I am knowledgeable about current international issues.	87.1%	85.3%	-1.8%	.43
I am able to speak and understand a second language.	82.9%	95.1%	12.2%	-3.13**
I am knowledgeable about cultures other than my own.	88.0%	94.1%	6.1%	-1.73
I am knowledgeable about technical and professional practices in other countries.	50.4%	65.7%	15.3%	-2.52*
I am able to work with people whose beliefs, values, and worldviews differ from my own.	77.8%	100.0%	22.2%	-5.61***
I am able to lead a group.	57.8%	86.3%	28.5%	-5.13***
I am able to work on a team.	61.7%	97.1%	35.4%	-7.00***
I am able to draw conclusions from data.	68.2%	98.0%	29.8%	-6.35***
I am able to manage time wisely.	69.0%	81.4%	12.4%	-2.33*
I am able to access information from a variety of external sources.	75.2%	98.0%	22.8%	-5.34***
I am able to succeed in an academic or professional career that involves working with complex information.	69.3%	92.2%	22.9%	-4.67***

* $p < .05$; ** $p < .01$; *** $p < .001$.

2009 and 2012 cohorts showed increased interests in planning to pursue a job related to international locations, content and/or foreign languages after their experience in the certificate program (Table 27). The prior/after increase for “Yes” answer is about 12.0% for both cohorts.

Table 27. Comparison Data regarding Students’ Plan to Pursue an International Job before and after Participation

		Yes		No		Unsure	
		n	%	n	%	n	%
Prior to my experience in the Asian studies certificate program, I planned to pursue a job related to international locations, content and/or foreign languages.	2009	88	74.6%	11	9.3%	19	16.1%
	2012	65	64.4%	21	20.8%	15	14.9%
Now, after experience in the Asian studies certificate program, I plan to pursue a job related to international locations, content and/or foreign languages.	2009	103	86.6%	4	3.4%	12	10.1%
	2012	77	76.2%	6	5.9%	18	17.8%

5.5.7 Summary

The comparative analysis of the 2009 cohort and 2012 cohort serves to strengthen findings, showing mostly similarity in findings obtained from these two groups. Overall, the comparison across two groups did not yield notable differences in the focus areas of this study, except significant differences found in respondents’ answers in nine items of their perception of skills for international careers between the 2009 cohort and the 2012 cohort. Positive findings gained from both groups are helpful to better understand the ASC’s certificate program and its influence on students.

2009 data and 2012 data show similar results in students’ characteristics and demographics. In both groups, the majority of students are studying in School of Arts and Sciences, and Graduate School of Public and International Affairs; over half of students were pursuing a Bachelor’s degree; the majority of students are female, White or Asian.

The percentages of 2009 respondents and 2012 respondents who regarded their overall experience in the certificate program as good or excellent are similarly high. Many of 2009

respondents and 2012 respondents regarded courses offered in the certificate program as good or excellent. The question “the content of the courses available to them” reflects a bigger difference in the percentages of 2009 and 2012 respondents who rated good or excellent, as opposed to the other five questions.

2012 respondents demonstrated a higher level of participation in all of the center activities than 2009 respondents. Respondents in 2012 indicated a considerably higher level of participation in international or intercultural activities on campus, and traveling to Asian area. The vast majority of both 2009 and 2012 respondents agreed that international experience through their Asian studies certificate is a long-term investment in their future career.

Differences in the percentages of 2009 and 2012 respondents rating their foreign language ability are small. Less than half of respondents in both groups rated their level of foreign language ability as advanced. A bit more than half of both 2009 and 2012 respondents recognized their participation in the certificate program as helpful or very helpful for learning a foreign language. A large number of them agreed that the knowledge of another language helps them to obtain a job in the career that they are likely to pursue.

Both 2009 students and 2012 respondents indicated notable increases in their ratings of their perception of global competency on post assessments. The differences in the pre-post increases in respondents’ combined ratings of competent or very competent in all of the eleven areas are not big between 2009 and 2012. Only one item “I am able to critically compare my culture with others” yielded a significant difference between the 2009 cohort and the 2012 cohort.

On post assessments, the percentages of 2009 and 2012 respondents who chose the two highest ratings in their perception of their knowledge and skills for international careers are high

in all of the eleven questions. In comparison, 2012 respondents rated higher in their perception of knowledge and skills for international careers in ten questions. There were significant differences in respondents' answers in nine questions between the 2009 respondents and the 2012 respondents. Also worthwhile to note is that a large number of 2009 and 2012 respondents plan to pursue a job related to international locations, content, and/or foreign languages after their experience in the certificate program.

5.6 DISAGGREGATED FINDINGS BETWEEN GROUPS OF 2012 DATA

For 2012 survey data, I conducted a disaggregated analysis by students' characteristics, aiming to see if there is a statistically significant difference in pre-to-post changes between groups in students' perception of their global competency and skills development for international careers. Two-way ANOVA tests, featuring two independent variables and one dependent variable, were performed to compare groups.

Given students' perception of their global competency and skills development for international careers is measured twice on a pre-test and post-test, I treat this factor as one independent variable, namely test. Students' characteristics, including degree students were pursuing, credits completion status, gender, race, single longest duration in an Asian country, and foreign language ability, are also treated as independent variables. Figure 6 categorizes student characteristic data into groups.

Degree Pursuing	Credit Completion Status	Gender	Race	Single Longest Duration	Foreign Language Ability
<ul style="list-style-type: none"> •Bachelor •Master •Doctoral 	<ul style="list-style-type: none"> •Beginners (Completed 1-19 credits) •Middle Group (Completed 20-39 credits) •Seniors (Completed 40-59 credits) 	<ul style="list-style-type: none"> •Male •Female 	<ul style="list-style-type: none"> •White •Asian •Multi-racial 	<ul style="list-style-type: none"> •None •Less than 4 weeks •1-6 months •7-12 months •More than 12 months 	<ul style="list-style-type: none"> •Speak foreign language, but can't read well •Read simple prose with difficulty •Read fairly complex texts •Speak with sufficient fluency •A fluent speaker with accuracy

Figure 6. Groups Categorized by Students' Characteristics

Results showed credit completion status and single longest duration students stayed in an Asian country yield significantly different pre-to-post changes in students' perception of their global competency. Respondents who stayed 1-6 months in an Asian country have the most significant difference in pre-to-post increases in their perception of their global competency after their participation in the certificate program. Results for the other four groups showed no significant differences in pre-to-post increases.

Only credit completion status showed significantly different pre-to-post changes in students' perception of skills development for international careers. Senior students have the most significant increases in their perception of their global competency and skills for international careers after their participation in the certificate program.

5.6.1 Degrees Students Were Pursuing

Perception of Global Competency. A two-way analysis of variance showed that the degree respondents were pursuing has a significant effect on their perception of their global competency ($F(2, 102) = 3.33, p = .04$), as does the effect of test ($F(1, 102) = 65.45, p < .001$). The interaction of these two factors is not significant ($F(2, 102) = .40, p = .67$), indicating that respondents' answers for degree they were pursuing do not yield significant difference in changes in students' perception of their global competency from pre-test to post-test.

Perception of Skills Development for International Careers. A two-way analysis of variance showed that the degree respondents were pursuing has a significant effect on respondents' perception of skills development for international careers ($F(2, 99) = 3.75, p = .03$), and as does the effect of test ($F(1, 99) = 58.67, p < .001$). The interaction of these two factors is not significant ($F(2, 99) = 1.78, p = .17$), indicating that bachelor, master, and doctoral respondents do not have significantly different pre-to-post changes in their perception of skills development for international careers.

5.6.2 Credit Completion Status

Perception of Global Competency. A two-way analysis of variance showed that respondents' credit completion status does not have a significant effect on their perception of their global competency ($F(2, 99) = 2.01, p = .14$), but a significant effect for test ($F(1, 99) = 110.85, p < .001$). The interaction of these two factors is significant ($F(2, 99) = 9.25, p < .001$). Figure 7 shows interaction pattern. Therefore, beginners, middle group and senior respondents have significantly different pre to post increases in their perception of their global competency.

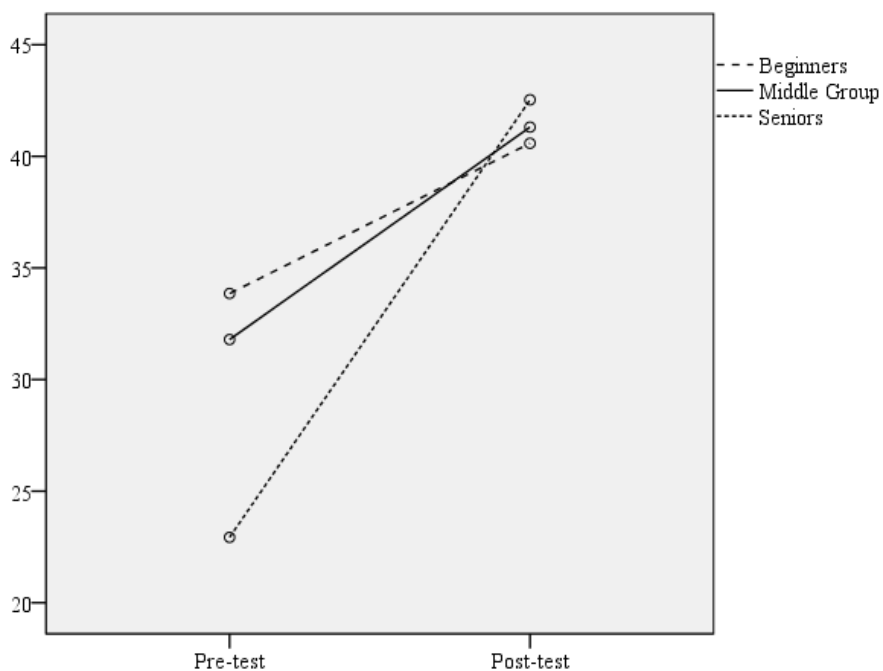


Figure 7. Plot of Means by Test and Credit Completion Status in Perceived Global Competency

In order to know which groups differ, a one-way ANOVA test was conducted. The test results indicated that there is a significant difference in pre-post increases in students' perception of their global competency between beginners and senior students ($p < .001$), and between the middle group and senior students ($p = .004$). The within group comparisons showed that the pre-post increases are most significantly different for senior students.

Perception of Skills Development for International Careers. A two-way analysis of variance showed that respondents' credit completion status does not have a significant effect on their perception of skills development for international careers ($F(2, 96) = 2.31, p = .11$), whereas the effect of test is significant ($F(1, 96) = 95.48, p < .001$). The interaction of these two factors is significant ($F(2, 96) = 6.10, p = .003$), indicating that beginners, middle group and senior respondents have a significant difference in pre-post increases in their perception of their skills development for international careers from . Figure 8 shows interaction pattern.

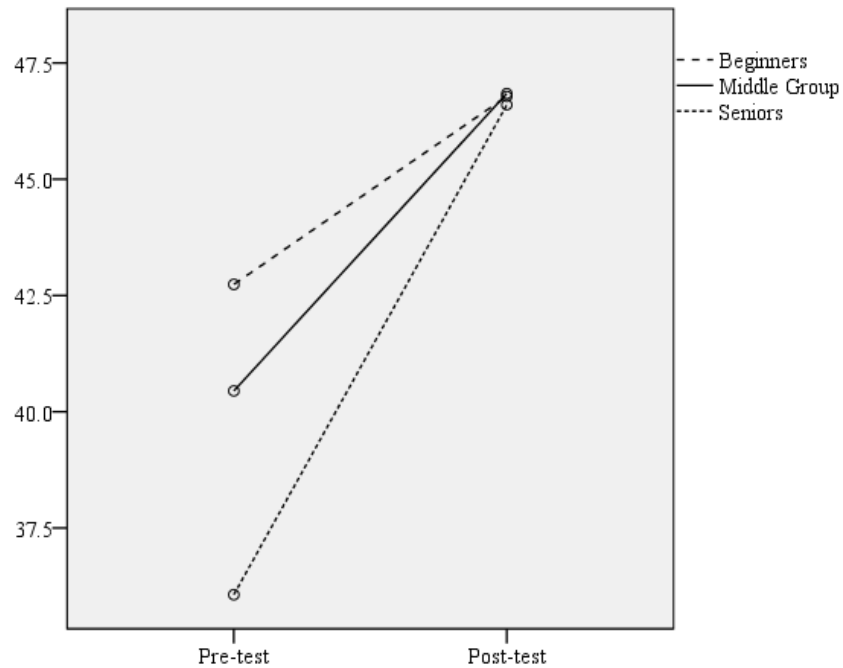


Figure 8. Plot of Means by Test and Credit Completion Status in Perceived Skills Development for International Careers

A one-way analysis of variance showed that the pre-post increases in respondents' perception of their skills for international careers are significantly different between beginners and senior students ($p = .002$). The further exploration of within group comparisons shows that the pre-post increases are most significantly different for senior students.

5.6.3 Gender

Perception of Global Competency. A two-way analysis of variance showed no statistically significant differences by gender ($F(1, 100) = .86, p = .36$), but significant effect of test ($F(1, 100) = 75.60, p < .001$). The interaction of these two factors is not significant ($F(1, 100) = 2.52, p = .12$), indicating that males and females do not have significant difference in changes in their perception of their global competency from pre-to-post.

Perception of Skills Development for International Careers. A two-way analysis of variance showed no significant effect for gender ($F(1, 100) = .90, p = .35$), but significant effect of test ($F(1, 100) = 76.52, p < .001$). The interaction of these two factors is not significant ($F(1, 100) = 2.29, p = .13$), indicating that gender yields no significant difference in changes in students' perception of their skills development for international careers from pre-to-test.

5.6.4 Race

Perception of Global Competency. Given there is only one Hispanic respondent, I removed this respondent before conducting a two-way analysis of variance. The result showed no significant effect for race ($F(2, 97) = .77, p = .47$), but a significant effect of test ($F(1, 97) = 36.75, p < .001$). The interaction of these two factors is not significant ($F(2, 97) = 2.83, p = .064$), indicating that race yields no significantly different pre-to-post changes in respondents' perception of their global competency .

Perception of Skills Development for International Careers. A two-way analysis of variance showed no significant effect for race ($F(2, 97) = .98, p = .38$), but a significant effect of test ($F(1, 97) = 46.41, p < .001$). The interaction of these two factors is not significant ($F(2, 97) = .06, p = .95$). Therefore, race does not yield significantly different changes from pre-to-post in respondents' perception of their skills development for international careers.

5.6.5 Single Longest Duration Students Stayed in an Asian Country

Perception of Global Competency. A two-way analysis of variance showed no significant effect of single longest duration respondents stayed in an Asian country ($F(4, 99) = .43, p = .78$), but the

effect of test is significant ($F(1, 99) = 72.41, p < .001$). The interaction of these two factors is significant ($F(4, 99) = 5.73, p < .001$), indicating that single longest duration respondents stayed in an Asian country yields significantly different pre-to-post increases in their perception of their global competency . Figure 9 shows interaction pattern.

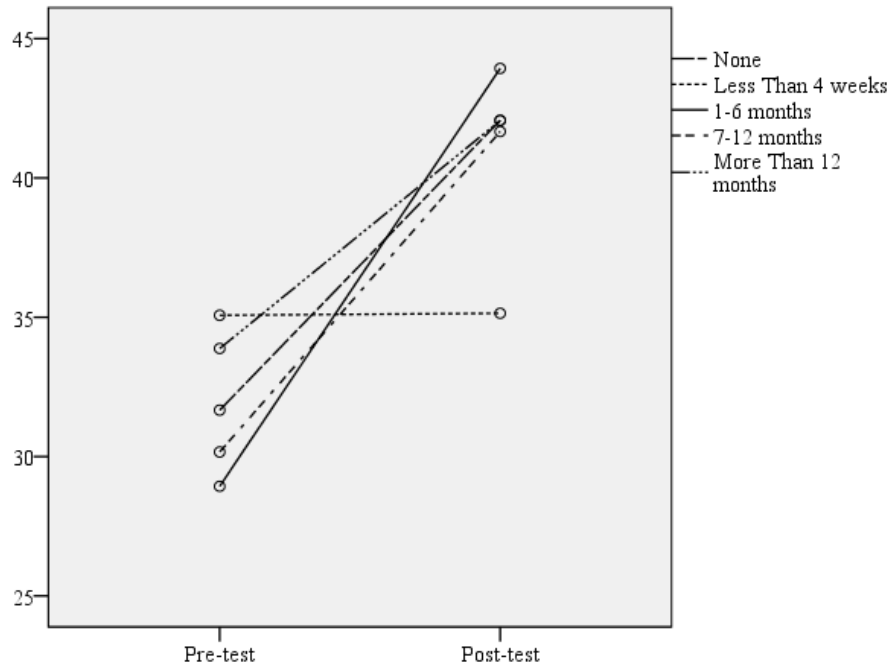


Figure 9. Plot of Means by Test and Single Longest Duration in an Asian Country in Perceived Global Competency

The one-way ANOVA test indicated that the pre-post increases in respondents' perception of their global competency is significantly different between students who never stayed in an Asian country and students who stayed for less than 4 weeks ($p = .048$), between less than 4 weeks and 1-6 months ($p < .001$), and between less than 4 weeks and 7-12 months ($p = .034$). The within group comparisons show that the pre-post increase is most significantly different for students who stayed 1-6 months in an Asian country.

Perception of Skills Development for International Careers. A two-way analysis of variance showed no significant effect for single longest duration respondents stayed in an Asian

country ($F(4, 97) = .21, p = .93$), but a significant effect of test ($F(1, 97) = 69.23, p < .001$). The interaction of these two factors is not significant ($F(4, 97) = 1.68, p = .16$), indicating that single longest duration respondents stayed in an Asian country does not have significantly different pre-to-post changes in their perception of their skills development for international careers .

5.6.6 Foreign Language Ability

Perception of Global Competency. A two-way analysis of variance showed no significant effect for foreign language ability ($F(4, 94) = .29, p = .89$), but a significant effect of test ($F(1, 94) = 62.51, p < .001$). The interaction of these two factors is not significant ($F(4, 94) = 1.54, p = .20$), indicating that foreign language ability yields no significant difference in changes in respondents' perception of their global competency from pre-to-post.

Perception of Skills Development for International Careers. A two-way analysis of variance showed no significant effect for perception of foreign language ability ($F(4, 91) = .85, p = .50$), but a significant effect of test ($F(1, 91) = 63.59, p < .001$). The interaction of these two factors is not significant ($F(4, 91) = 1.34, p = .26$). Therefore, perception of foreign language ability does not yield significantly different changes in respondents' perception of their skills development for international careers from pre-to-post.

5.7 MULTIPLE REGRESSION ANALYSIS OF 2012 DATA

A multiple regression analysis of 2012 survey data was performed to determine whether there is a relationship between a dependent variable and more than two independent variables. A

multiple regression analysis shows which independent variable is more important to predict the variation in a dependent variable (Punch, 2005). In this study, a multiple regression model is built with respondents' perception of their increased global competency treated as a dependent variable, and courses taken in the certificate program, center activity participation, and international experience treated as independent variables. Similarly, another multiple regression model is built with respondents' perception of their improved skills for international careers as a dependent variable, and courses taken in the certificate program, center activity participation, and international experience as independent variables.

Notable results revealed that the regression model is useful for predicting students' perception of their increased global competency, and improved skills for international careers. Courses taken in the certificate program and students' international experience are useful predictors of students' perception of increased global competency, and improved skills for international careers. The effect of students' international experience is greater than courses taken in the certificate program on their perception of increased global competency, and improved skills for international careers.

5.7.1 Perceived Increased Global Competency

Students' perception of their increased global competency is expected to be correlated with courses taken in the certificate program, center activity participation, and their international experience. The regression equation to describe the data is:

$$\text{InGC} = -9.325 + .720 \text{ Courses} - .243 \text{ ActivitiesYes(1)No(0)} + 2.445 \text{ InterExperYes(1)No(0)}$$

The Variance Inflation Factor (VIF) is less than 10, meaning there is no concern for multicollinearity. Regression coefficients indicate that courses taken in the certificate program are positively correlated with respondents' perception of increased global competency. However, participation in center activities is negatively correlated with respondents' increased global competency. Respondents' international experience is positively correlated with their increased global competency.

The R square was computed at .140, indicating 14.0% of the variation in respondents' perception of increased global competency is explained by courses taken in the certificate program, center activity participation, and international experience. The analysis of variance (ANOVA) indicates that at least one of the independent variables is useful for predicting respondents' perception of increased global competency, which is statistically significant ($F(3, 104) = 5.499, p = .002$).

Courses taken in the certificate program is a useful predictor of respondents' perception of increased global competency, which is statistically significant ($\beta = .241, t(104) = 2.462, p = .016$). Center activities participation is not useful as a predictor of respondents' perception of increased global competency, which is statistically insignificant ($\beta = -.040, t(104) = -.388, p = .699$). International experience is useful as a predictor of respondents' perception of increased global competency, which is statistically significant ($\beta = .283, t(104) = 2.885, p = .005$).

The semi-partial correlation shows correlation between one independent variable and one dependent variable, controlling other independent variables. The semi-partial correlation between courses taken in the certificate program and respondents' perception of increased global competency is .227, controlling center activity participation and international experience. The semi-partial correlation between center activity participation and respondents' perception of

increased global competency is $-.036$, controlling the other two variables. The semi-partial correlation between international experience and respondents' perception of increased global competency is $.266$, controlling the other two variables.

The semi-partial correlation also conveys that courses taken in the certificate program and respondents' international experience are positively correlated to respondents' perception of increased global competency. A squared semi-partial correlation reveals that 5.2% of the variance in respondents' perception of increased global competency is associated with courses taken in the certificate program, and 7.1% of the variance in respondents' perception of increased global competency is associated with respondents' international experience. A squared semi-partial correlation suggests respondents' international experience is a stronger predictor of their perception of increased global competency than courses taken in the certificate program. Table 28 presents the unstandardized regression coefficients (B), their standard errors (SEB), their confidence intervals, the standardized regression coefficients (β), and the squared semi-partial correlations (sr^2).

Table 28. Regression Analysis Summary for Predicting Perceived Increased Global Competency

Variable	B	SEB	CI	β	sr^2
Courses	.72*	.29	(.14, 1.30)	.24	.05
Participation in Center Activities (1=Yes; 0=No)	-.24	.63	(-1.48, .10)	-.04	.00
International Experience (1=Yes; 0=No)	2.45**	.85	(.76, 4.13)	.28	.07

R = .140 (N=125, $p < .01$).

* $p < .05$; ** $p < .01$; *** $p < .001$.

5.7.2 Perceived Improved Skills for International Careers

Students' perception of their improved skills for international careers is expected to be correlated with courses taken in the certificate program, center activity participation, and their international experience. The regression equation to describe the data is:

$$\text{ImSkills} = -7.577 + .526 \text{ Courses} - .097 \text{ ActivitiesYes(1)No(0)} + 1.559 \text{ InterExperYes(1)No(0)}$$

The VIF is less than 10, indicating no concern for multicollinearity. Regression coefficients indicate that courses taken in the certificate program are positively correlated with respondents' perception of improved skills for international careers. Center activity participation is negatively correlated with respondents' perception of improved skills for international careers. Respondents' international experience is positively correlated with their perception of improved skills for international careers.

The R square was computed at .185, indicating courses taken in the certificate program, center activities participation, and respondents' international experience count for 18.5% of the variation in respondents' perception of improved skills for international careers. The analysis of variance (ANOVA) indicates that at least one of the independent variables is useful for predicting respondents' perception of improved skills for international careers, which is statistically significant ($F(3, 101) = 7.407, p < .001$).

Courses taken in the certificate program are useful as a predictor of respondents' perception of improved skills for international careers, which is statistically significant ($\beta = .292, t(101) = 2.994, p = .003$). Center activity participation is not useful as a predictor of respondents' perception of improved skills for international careers, which is statistically insignificant ($\beta = -.026, t(101) = -.255, p = .799$). International experience is useful as a

predictor of respondents' perception of improved skills for international careers, which is statistically significant ($\beta = .301$, $t(101) = 3.097$, $p = .003$).

The semi-partial correlation between courses taken in the certificate program and respondents' perception of improved skills for international careers is .273, controlling center activity participation and international experience. The semi-partial correlation between center activity participation and respondents' perception of improved skills for international careers is -.023, controlling the other two variables. The semi-partial correlation between international experience and respondents' perception of improved skills for international careers is .282, controlling the other two variables.

The semi-partial correlation affirms that courses taken in the certificate program are positively correlated to respondents' perception of improved skills for international careers, so is international experience. A squared semi-partial correlation reveals that 7.5% of the variance in respondents' perception of improved skills for international careers is associated with courses taken in the certificate program, and 8.0% of the variance in respondents' perception of improved skills for international careers is associated with their international experience. Consistently, a squared semi-partial correlation suggests international experience has a greater effect than courses taken in the certificate program in respondents' perception of improved skills for international careers. Table 29 presents the unstandardized regression coefficients (B), their standard errors (SEB), their confidence intervals, the standardized regression coefficients (β), and the squared semi-partial correlations (sr^2).

Table 29. Regression Analysis Summary for Predicting Perceived Improved Skills for International Careers

Variable	B	SEB	CI	β	sr^2
Courses	.53**	.18	(.18, .87)	.29	.07
Participation in Center Activities (1=Yes; 0=No)	-.10	.38	(-.85, .66)	-.03	.00
International Experience (1=Yes; 0=No)	1.56**	.50	(.56, 2.56)	.30	.08

R = .185 (N=125, $p < .001$).

* $p < .05$; ** $p < .01$; *** $p < .001$.

6.0 DISCUSSION, RECOMMENDATIONS AND CONCLUSION

The purpose of this chapter is fivefold. First, I provide an overview of the study, emphasizing its focus, data collection, and analytic method. Second, I link key findings to the six research questions, as well as literature reviewed in chapter three and in this chapter. Third, I explore some implications of this study's findings, discussing factors relevant to the development of students' global competency and skills for international careers, and suggesting actions that universities and area studies centers can implement to fulfill their mission of creating globally competent students ready for international careers. Fourth, I recommend additional research to further explore the relationship between area studies centers, and students' global competency and skills for international careers. Fifth, I provide a concluding statement to address the goals of this study.

6.1 OVERVIEW OF THE STUDY

This study was intended to investigate students' perceptions of their global competency and skills development for international careers as a result of their participation in the University of Pittsburgh's ASC's international certificate program. An on-line survey, including piloted questions developed by CEAC and a few new questions created by me, was used to collect data from undergraduate and graduate students currently enrolled in the ASC's certificate program.

The survey was administered to 292 students by email message with an embedded hyperlink to the survey. After three rounds of follow-up emails, 125 students who enrolled in the certificate program as of March 16, 2012 participated in the study, generating a 42.8% response rate.

Data analysis started with a test of representativeness of the sample and a reliability test of the survey instrument. Descriptive statistical analysis was then conducted on the sample of one hundred and twenty-five respondents. This analysis was then compared with CEAC's analysis of the 2009 pilot cohort's one hundred and forty-two respondents. These descriptive analyses explore students' characteristics, students' satisfaction with the certificate program, students' international experience, students' foreign language capability, and the extent to which the certificate program increases students' global competency and skills for international careers.

Paired t-tests and two way ANOVA tests were conducted to explain whether the differences in pre-post changes in students' perceptions of their global competency and skills development for international careers were significant for all students and between disaggregated groups (e.g., degree students were pursuing, credits completion status, gender, race, single longest duration students stayed in an Asian country, and foreign language ability).

Multiple regression analysis served as a correlational analysis to determine whether the relationships exist between the three independent variables, courses taken in the certificate program, center activity participation, and students' international experience, and the dependent variables, students' perception of increased global competency, and students' perception of improved skills for international careers, respectively.

The survey findings help illuminate this dissertation study's six research questions. The first four research questions related to the first four and last sections of the survey, which contain students' characteristics and demographics, satisfaction with the certificate program,

international experience, and foreign language capability. The survey sections of global competency and skills development for international careers generate findings to help provide answers to the last two research questions.

Findings concerning the first four research questions were presented in the form of descriptive statistics and multiple regression analysis was employed to answer the last two research questions. Significance tests conducted on students' perception of their global competency and skills development for international careers data disaggregated by students' characteristics provide additional important information relating to the last two research questions.

6.2 DISCUSSION OF FINDINGS

This section is organized to present notable findings pertaining to the six research questions of this dissertation. In this section, I connect findings from this study to the literature reviewed in the previous chapter and this chapter. By doing so, I not only show the consistency of the findings and literature, but also strengthen findings and add to the literature in the field of area studies.

6.2.1 Research Question One: What Are the Characteristics of the Sample of Students Enrolled in the ASC's Certificate Program?

It is important to note that the majority of respondents participating in the survey are female (74.5%), U.S. citizens (72.5%), and between 19 and 24 years old (60.6%). A significant number

(71.8%) of respondents are from School of Arts and Sciences, many (57.3%) respondents were pursuing a Bachelor's degree, and an overwhelming majority of respondents (91.9%) are full-time students.

Four of the student characteristic variables, degree students were pursuing, credit completion status, gender, and race, were disaggregated to analyze differences in pre-post changes in students' perception of their global competency and skills development for international careers. Findings showed that only credit completion status appeared to be an important variable, which yielded significantly different changes from pre-test to post-test, while degree, gender and race did not show significantly different pre-post changes.

Credit completion status seemed to be a strong student characteristic variable and therefore drew special interest. It yielded significantly different pre-to-post increases in both respondents' perceptions of their global competency and skills development for international careers. Respondents fell into three different groups: beginners who have completed less than 19 credits (47.9%), middle group who have completed 20 to 39 credits (39.6%), and seniors who have completed 40 to 59 credits (12.4%).

The pre-post increases in respondents' perception of their global competency were significantly different between beginners and senior students, and between middle group and senior students. The pre-post increase in respondents' perception of their skills for international careers was significantly different between beginners and senior students. The further exploration of within group comparisons shows that the pre-post increase was most significantly different for senior students.

Differences by credit completion status were not surprising, given that as students are more immersed in the program, they are more likely to feel globally competent and ready for

international careers. The findings suggest that individual interviews with senior students could help to better understand why they had the greatest effect after participation in the certificate program.

6.2.2 Research Question Two: What is Students' Satisfaction with the ASC's Certificate Program?

Findings indicated that the vast majority of respondents (78.2%) reported their overall experience in the certificate program as good or excellent. The percentages of respondents who reported courses offered in the certificate program as good or excellent were above 60.0%, ranging from 63.4% for "The selection of courses available to satisfy your certificate program" and "The course guidance you have received from your certificate program academic advisor" to 88.4% for "The quality of teaching you received". In addition, courses taken in the program was the most frequently cited theme as the most helpful part of the certificate program.

Another important finding regarding courses taken in the certificate program was its positive correlation with respondents' perception of their global competency and skills for international careers. Data showed that courses taken in the certificate program were a useful predictor of students' increased global competency, and the relationship was statistically significant. Also, courses taken in the certificate program was a useful predictor of students' improved skills for international careers, and the relationship was statistically significant.

When breaking down the scale variable of courses taken in the certificate program, the individual variable, level of academic rigor, had the greatest effect. This variable had the highest R square computed at .063 in its relationship with students' increased global competency, indicating 6.3% of the variation in students' perception of increased global competency was

explained by the level of academic rigor. The level of academic rigor remained the highest R square computed for students' perception of improved skills for international careers. 13.0% of the variation in students' perceptions of improved skills for international careers was explained by the level of academic rigor.

Students' positive perception strengthens the benefits of courses taken in the certificate program. Findings provide evidence for faculty and program administrators to pay continued attention to course content, teaching quality, and faculty guidance to students. Academic rigor emerges to be the most important variable, as it has the strongest relationship with students' increased global competency and improved skills for international careers.

Findings provide evidence of the important role of faculty in increasing students' global competency and skills for international careers. Therefore, strategies to increase faculty capacity in their delivery of courses could be considered as one way to produce globally competent students being prepared to involve in global careers.

When it came to participation in center activities, the majorities of respondents attended international week, and cultural festivals (77.5%), lectures (64.9%), and art exhibitions, musical and dramatic performances (58.6%). However, findings revealed that center activity participation was not related to respondents' perception of their global competency and skills for international careers.

Although not required, center activities are important supplements that provide opportunities for students to broaden their international knowledge and implement what they learn from courses. Findings provide direction for program administrator to evaluate the influence of center activities on students. A survey asking students' comments on center

activities is suggested to further explore the findings above. Upon receiving students' comments on center activities, the program administrator could formulate strategies for improvement.

6.2.3 Research Question Three: What International Experience Do ASC Students Have?

Notable findings regarding students' international experience indicated that a significant number of respondents participated in international or intercultural activities on campus (85.5%), traveled to an Asian area (70.9%), and hosted, tutored or had sufficient interaction with international students (65.5%). In terms of respondents' perception of international experience through their certificate program, many respondents stated that they perceived their certificate program as a long-term investment in their future careers (64.8%).

Not surprisingly, this study found students' international experience to be vital to increasing their perception of their global competency and skills for international careers. Findings indicated that respondents' international experience had a significant correlation with their perception of their global competency and skills for international careers. When compared with courses taken in the certificate program, respondents' international experience had a greater effect on their perception of their increased global competency and improved skills for international careers.

Further analysis of the individual scale variables of respondents' international experience indicated that their experience in hosting, tutoring, or interacting with international students had the greatest influence. This variable had the highest R square in its relationship with respondents' increased global competency, and improved skills for international careers, respectively. Specifically, 8.5% of the variation in respondents' perception of increased global competency was explained by their experience in hosting, tutoring, or sufficient interaction with international

students, and 8.1% of the variation in respondents' perception of improved skills for international careers was explained by their experience in housing, tutoring, or sufficient interaction with international students.

The single longest duration respondents stayed in an Asian country was also notable, as it addressed important findings in respondents' perception of their global competency. Many respondents reported staying in China, Japan, and South Korea. The percentage of respondents who reported they spent more than 12 months in an Asian country (31.2%) was similar to the percentage of respondents who reported spending less than 6 months (30.3%). Also, the percentages of respondents who reported their single longest period of time spent in an Asian country as between 7 and 12 months (11.0%) or less than 4 weeks (12.8%) were similar. 14.7% of respondents indicated they never spent time in an Asian country.

Findings showed that the single longest duration respondents stayed in an Asian country yielded significantly different changes from pre-to-post in respondents' perceptions of their global competency, and no significantly different pre-post changes in their perceptions of their skills development for international careers. The pre-post increase in respondents' perception of their global competency was most significantly different for students who stayed 1-6 months.

The effect of respondents' duration in an Asian country on their perception of global competency addresses the importance of the length of respondents' stay in an Asian country. The study showed short-term stays, such as one to six months, had the most significant pre-post increase. Although longer immersion time in an Asian country, such as seven to twelve months or more than twelve months, made a significantly different pre-post increases, it did not necessarily mean respondents' difference in pre-post increases in their perception of global competency was more statistically significant.

This finding provides an inspiration for future analysis of the depth of students' short-term stays. Additional questions asking students the activities or assignments in which they engaged during their stay in an Asian country could contribute to a better understanding of the effect of students' short-term stay on their perceptions of global competency.

6.2.4 Research Question Four: What Foreign Language Capability Do ASC Students Have?

Language learning is an integral part of the certificate program required of students. Foreign language ability represents one of the critical ingredients of global competency and skills for international careers. Important findings from this dissertation study regarding students' foreign language capability included that the majority of respondents grew up in a country where English is the official language (67.3%) and speak more than one language (93.6%).

Among respondents who can speak a foreign language other than English, similar percentages stated that they can read fairly complex texts, understand ordinary native speakers, and carry on a discussion (26.2%), they are fluent speakers with the accuracy and range of an educated native speaker of the language (25.2%), and they can read simple prose with difficulty, follow simple conversation, and use the language to get around (23.3%). Also, smaller percentage of respondents stated that they can speak with sufficient fluency and accuracy to function in most social and professional situations (13.6%) and can speak the foreign language, but can't read it well (11.7%).

Significance tests revealed that respondents with different levels of foreign language proficiency had no statistically significantly pre-to-post differences in their perception of their global competency and skills development for international careers. Findings suggest further

study is needed to shed a light on why respondents with advanced level of foreign language proficiency do not perceive themselves as being more globally competent and more able to involve in international careers after participation in the certificate program.

A notable finding concerning the helpfulness of the certificate program in students' foreign language learning was that more than half of the respondents (52.3%) regarded the certificate program as helpful or very helpful for learning a foreign language. A large number of respondents (84.3%) agreed or strongly agreed that knowledge of another language will help them to get a job in the career that they are likely to pursue.

6.2.5 Research Question Five: How Does College Students' Participation in the ASC's Certificate Program Impact Their Perception of Global Competency?

One of the hypotheses of the study was that students' participation in the ASC's certificate program played a role in their increased global competency. Literature reviewed suggested that area studies centers play a critical role in producing globally competent students (Brustein 2007; Lambert 1993). Consistently, findings demonstrated that respondents increased their perception of global competency after their participation in the ASC's certificate program.

This was evident in post-tests where the percentage of respondents who rated their level of global competency as "Competent" or "Very Competent" increased for all questions, ranging from 17.1% to 39.0%. Also, paired t-tests revealed that pre-post increases were statistically significant.

Additionally, a positive correlation was found between respondents' perception of their increased global competency and a major component of the ASC's certificate program, courses taken in the certificate program. Brustein's (2007) perspective on the interdisciplinary model of

area studies centers suggests the effect of the curriculum that incorporates students' disciplines and area studies in increasing students' global competency. Lambert's (1993) argument on the training gone through by language and area specialists explicates the essential role of courses provided at the area studies centers in fostering globally competent individuals. Findings in this study resonate that courses taken in the certificate program have significant correlation with respondents' increased global competency.

International experience can be a more important variable, as it is associated with respondents' increased global competency and has a greater effect than courses taken in the certificate program. International experience, either in the way of foreign travel or international work, is seen as an effective means of developing globally competent individuals (Olson & Kroeger, 2001; Gregersen, Morrison, & Black, 1998).

Olson and Kroeger (2001) found a positive correlation between global competency and substantive experience abroad, defined as having been abroad for more than 3 months or having repetitive experience in a particular location. In this regard, the length of international experience is worthy of consideration when analyzing its relationship with global competency. Not surprisingly, disaggregated analysis of findings show that the single longest duration respondents stayed in an Asian country yields significant differences in pre-post increases in their perceptions of their global competency. Respondents who stayed between one and six months in an Asian country have the most significant difference in pre-to-post increase in their perceptions of their global competency.

6.2.6 Research Question Six: How Does College Students' Participation in the ASC's Certificate Program Impact Their Perception of Skills Development for International Careers?

Another hypothesis of this dissertation study was that students' participation in the ASC's certificate program brought about improved skills for international careers, such as knowledge of global affairs, foreign language proficiency, intercultural skills, and cognitive skills. Notable findings demonstrated that the pre-to-post increases in the percentage of respondents who agreed or strongly agreed on their knowledge and skills useful for engaging in international careers ranged from 6.9% to 32.4%. Based on paired t-tests, the pre-to-post increases were statistically significant.

Findings are consistent with Breuning and Ishiyama's (2006) viewpoints about the benefits of international studies programs in contributing to skills for international careers (e.g., knowledge of global affairs, foreign language proficiency, cultural skills, and cognitive skills). Similarly, Gross (2004) and Inman (1987) attributed the development of knowledge and skills useful in international careers to the interdisciplinary model favored by area studies centers. It is also important to note that findings of this dissertation strengthen Bialystok (2001), Schultz (2001), and Fuchsen's (1989) studies pertaining to the influence of foreign language and cultural learning in the advancement of cognitive skills.

Important findings from this study's correlation analysis show that courses taken in the certificate program and respondents' international experience have a significant relationship with respondents' perception of improved skills for international careers. Again, the effect of respondents' international experience is greater than courses taken in the certificate program on their perception of improved skills for international careers.

This dissertation's findings highlight results from MacDonald and Arthur's (2004) report emphasizing the critical role of students' international experience in career development. MacDonald and Arthur found that international experience benefits students with employment skills desired in the context of global economy. Professional growth and cross-cultural competency gained abroad facilitate students' pursuit of a larger number of occupations. More importantly, MacDonald and Arthur's point that links students' international experience with employment might shed light on how international area studies centers can play a facilitative role in students' career development.

6.3 IMPLICATIONS OF THE STUDY

Findings of this study showed that students' participation in the ASC's certificate program positively impacted their perception of their global competency and skills development for international careers. These findings enable a better understanding of important elements of area studies centers that contribute to the enhancement of students' global competency and skills for international careers. This understanding provides direction for area studies centers as they strive to create globally competent students dedicated to international careers.

6.3.1 Implications for Faculty International Experience

Findings of this study revealed positive correlations between courses taken in the certificate program and students' perception of their global competency, and between courses taken in the certificate program and students' perception of their skills development for international careers.

The data showed that students consider courses taken in the certificate program as the most helpful part of the certificate program.

Faculty is at the core of area studies centers, acting as a central player in the design and delivery of curriculum. Faculty members who are aware of integrating international dimensions into the curriculum could facilitate development of students' global competency and student engagement in an internationalized career. Faculty's international experience translates to their style of classroom teaching.

Sandgren, Ellig, and Hovde (1999) cited that short-term overseas experience plays as a catalyst for faculty to internationalize their curriculum. Their study demonstrated a causal connection between short-term study abroad experiences of college faculty and global components of their classroom teaching. Drawn from participating faculty's self-reports and in-depth interviews with faculty, Sandgren, Ellig, and Hovde formulated a causal process theory. The causal process theory is composed of four different elements: experience, self-awareness, social awareness, and teaching. In this theory, faculty members' exposure to international experience resulted in changes in their course content, teaching strategies, and philosophy of teaching. A transformed self-awareness and social awareness serve as a basis on which the causal linkages are built.

University policies to encourage faculty participation in international professional development activities are also critical. First, providing funding support for faculty international activities could be pivotal to increasing faculty interests in international experience. Funding resources would assist faculty in conducting teaching or research abroad. Faculty would be able to create opportunities to collaborate with international colleagues on global research and benefit their career advancement.

Second, integrating international experience into promotion and tenure evaluation would promote faculty engagement in international activities. If faculty contribution to international society is considered as a requirement in the promotion and tenure evaluation process, faculty would be more likely to make efforts to work toward this goal.

Third, encouraging faculty to take advantage of sabbatical leave to engage in educational programs in foreign countries would be an effective university-wide action. Sabbatical leave provides flexibility for faculty to fulfill roles in international projects. Incentives such as grants and award could be strategies to maximize faculty international participation.

6.3.2 Implications for Student International Experience

Study abroad programs provide students with learning experiences and benefit students in tremendous ways. Studies show that study abroad programs lead to increased cultural awareness, international understanding, and a global mindset (Cushner, K. & Mahon, J. 2002; Clarke, I., et al., 2009). Clarke, et al., (2009) asserted study abroad programs to be beneficial on the grounds that students who participate are more globally minded, demonstrate higher levels of intercultural communication, and show a greater openness to cultural diversity than students who do not.

Consistent with findings from Clarke, et al., Cushner and Mahon's (2002) findings based on student international teaching experience revealed student personal growth and professional progress to be achieved because of the immersion experience. Their study indicated that students' international teaching experience results in an increase in cross-cultural understanding, self-sufficient, and global mindedness.

Moreover, MacDonald and Arthur's (2004) study on Canadian student teachers' study abroad experience shows that international experience has positive career advantages. Skills gained through study abroad are important assets when students are competing in a global market with those who did not study abroad. Through international experience, students acquire transferrable skills needed in a number of different occupations.

The above-mentioned literature supports consideration for making a study abroad experience a requirement in the ASC's certificate program. Although a study abroad experience is not a requirement in the ASC's certificate program, research data shows that many students participated in study abroad program or internships abroad during their time at the University of Pittsburgh. Data shows that students' international experience is positively correlated with their perception of their global competency and their perception of their skills development for international careers. By requiring credits for a study abroad experience, the certificate program could motivate more students to gain international experience, and thus create more globally competent students with skills desired in international careers.

The ASC has established a study abroad program that facilitates students to gain educational experience in Asia. Incorporating study abroad into the certificate program would not require additional resources. To motivate greater involvement in study abroad programs, ASC could provide assistance for students to secure university or international grants. It could increase students' interests in international experience if the program offers seminars on topics such as tips to conduct international research in a study abroad program, and living and working with people of different cultures.

Providing sufficient information about employment opportunities in international careers is a catalyst for students' international engagement. Students will be more likely to participate in

international research if they see skills gained abroad are desired in the job market. As MacDonald and Arthur (2004) suggest, the ASC can work with the university career counseling office to help students incorporate their international experience into career development.

The breadth and depth of students' stay in an Asian country is also important, as findings show single longest duration students stayed in an Asian country to have a significant difference in pre-post increases in students' perception of their global competency. Specifically, the pre-post increases in students' perception of their global competency is statistically significantly different between students who never stayed in an Asian country and students who stayed for less than 4 weeks, between less than 4 weeks and 1-6 months, and between less than 4 weeks and 7-12 months. The pre-post increase is most significant for students who stayed 1-6 months.

Findings suggest the program to formulate strategies to attract students to stay in an Asian country for a certain period of time. International collegial networks could help the program obtain long-term projects. Graduate students pursuing ASC certificates could conduct research focusing on international projects, as part of their program.

6.3.3 Implications for Senior Students' Career Preparation

It is not surprising to find from this study that beginners, middle group and senior students have significantly different pre-to-post increases in their perception of their global competency and skills development for international careers. In particular, beginners and senior students have a significant difference in pre-post increases in their perception of their global competency. Also, these two groups have significant differences in pre-post increases in their perception of their skills for international careers. The pre-post increases in students' perception of global

competency and skills for international careers are most significantly different for senior students.

Findings suggest that senior students who are completing their courses feel they are more globally competent and more prepared for international careers than student who started the certificate program earlier in their matriculation. Senior students who have a global mindset and possess international knowledge and skills are qualified candidates for positions located in international organizations.

The program might consider providing opportunities through which senior students are prepared to pursue international jobs upon graduation. For example, securing international internship sites for senior students could strengthen their practical capability to work for an international corporation. Skill-building workshops could be an alternative capacity building opportunity to prepare students to enter into international professions.

Alumni are great resources to which senior students can refer. Keeping good records of alumni is an effective strategy that enables students to network with graduates involved in an international community. The program could invite alumni to participate in a seminar in which current students are able to discuss their concerns and gain insights into their career choices. Sending flyers to alumni regularly about center activities, such as cultural festivals, film-screenings, and music or dance performances, would create informal networking opportunities for students and strengthen communication between students and alumni.

6.3.4 Implications of Comparison between 2009 Data and 2012 Data

The intention of the comparison of findings from the 2009 and 2012 ASC cohorts is to explore differences in respondents' characteristics and demographics, perspectives of courses taken in

the certificate program, international experience, foreign language ability, and the impact of the certificate program on their perception of global competency and skills development for international careers. Respondents from both cohorts were similar in their characteristics and demographics. They rated their courses similarly high and their foreign language ability similarly low. Both groups consistently revealed positive responses to the certificate program.

2012 data attracted special attention. More 2012 respondents participated in center activities, experienced international growth, and demonstrated increases in their perception of global competency and skills for international careers after their participation in the certificate program. These findings stimulate reflection upon the possible reasons behind increased program impact from 2009 to 2012, implying effective approaches for the development of area studies centers in a broader context.

Participation in Center Activities

2012 respondents' higher levels of participation in center activities might attribute to a more supportive environment created by the ASC in the past a few years. For example, the ASC might have invested resources to enrich center activities, which could have increased students' interests. Faculty might have incorporated center activities in the curriculum to encourage center activities related class projects or assignments. The ASC staff might have played a role in motivating center activities participation. If they contributed more time to publicizing and participating in center activities, students would likely pay more attention to center activities.

2012 respondents particularly indicated higher levels of participation in international week and cultural festivals, and art exhibitions, musical and dramatic performances. A strengthened connection between the ASC and the local community might account for the higher level of participation in these events. Another reason could be the more diverse nature of

Pittsburgh community that brought about more opportunities for students to participate in international events.

International Experience

Compared with 2009 respondents, 2012 respondents revealed notably higher levels of participation in international or intercultural activities on campus, traveling to Asian area/another country, and studying abroad as a graduate or undergraduate student. It is possible that the increased amount of grants invested in international activities on campus, or federal funding contributed to students' study-abroad scholarship paved a way to respondents' participation in international activities.

Students enrolled in the certificate program are not required to participate in the study-abroad program. The ASC could require students to participate in international or intercultural activities on campus as a supplementary way to strengthen their international experience. Students' frequency of participation in international activities at the local level could be reported to the ASC in their portfolio and count toward their completion of the certificate program.

Respondents' Perception of Global Competency

2012 respondents demonstrated more pre-post increases in rating global competency as "Competent" and "Very Competent" in seven of eleven items. Especially, more pre-post increases were found on two items, "I am able to speak and understand at least one other language in the area covered by my certificate program", and "I am able to critically compare my culture with others". The item "I am able to critically compare my culture with others" yielded a significant difference in respondents' answer between the 2009 cohort and the 2012 cohort.

2012 respondents' increased center activities participation and international experience might have led to increased ratings of global competency, compared with 2009 respondents. If

respondents had more opportunities to be immersed in international activities domestically and overseas, the likelihood of advancing their foreign language and cultural skills would be higher. Respondents' increased connection with international students could attribute to their increased global competency. Additionally, the ASC might create more internship or volunteer opportunities with international organizations in attempts to nurture more globally competent students. The ASC might provide more elective courses with a focus on international themes, in order to facilitate students to develop global mindset.

Respondents' Perception of Skills Development for International Careers

2012 respondents provided higher ratings in their skills for international careers in ten of eleven items after participation in the certificate program. There were significant differences in respondents' answers in nine items between the 2009 respondents and the 2012 respondents. Given increased demand for skills for international careers, the government might offer more resources or grants to the ASC. The ASC might create a culture that emphasizes high-level skills in students who are prepared to work in international organizations. Courses might be changed to involve assignments required of research skills, communication skills, problem solving, and teamwork. Networking with international organizations would offer students opportunities to work with people of different countries.

In particular, respondents' higher ratings were found on three items, "I am able to lead a group", "I am able to work on a team", and "I am able to draw conclusions from data". These three items conveyed students' perception of their cognitive skills. Finding confirms relationship between foreign language and cultural skills and cognitive skills. Findings in respondents' perception of global competency that emphasized their pre-post increases in foreign language

and cultural skills might have led to this finding – respondents’ increased level of cognitive skills.

Comparison of 2009 and 2012 data stirs deliberation on the possible explanation for the higher ratings provided by 2012 respondents. A more adaptive policy, culture, and environment to motivate student growth might be associated with the response changes in 2012. Other factors, including grants, curriculum, and connections with local community and international organizations, might provide additional reasons. The above discussion could provide a basis for further development of the ASC or area studies centers with similar missions.

6.3.5 Recommendations for Future Research

This study examines the impact of students’ participation in the ASC’s certificate program on their perception of their global competency and skills development for international careers. ASC’s certificate program is one of the seven certificate programs offered by the University Center for International Studies (UCIS) at the University of Pittsburgh. Gaining additional data from the other six certificate programs, including the African Studies Program, European Union Center of Excellence and European Studies Center, Global Studies Program, Center for Latin American Studies, Center for Russian & East European Studies, and Certificate Program in International Business, is suggested to further examine the effect of certificate program in students.

Conducting further research at area studies centers located in other higher education institutions is also recommended. It would be useful to see if findings from other institutions would support the findings of this dissertation study and the 2009 pilot study. In this way,

findings become more generalizable to a broader context and can be more valid and reliable, contributing to the development of literature in the field of international education.

The on-line survey that is predominantly composed of close-ended questions yields numerical data. A qualitative approach that generates in-depth information would be useful to obtain findings in greater details on how the ASC's certificate program plays a part in students' global competency and skills development for international careers. It would be worthwhile to employ a follow-up interview with students who demonstrate significant increases in their ratings of global competency and skills development for international careers on the post-assessments. In addition, research data would suggest senior students who have completed 40 to 59 credits or students who have tremendous international experience with an Asian country would be an optimum target group for the interviews.

Additional research is also recommended to gain the input of other stakeholders in the program, such as program administrators and faculty. Data on the part of program administrators and faculty, coupled with student data, would strengthen findings of this study. Exploring program administrators and faculty's viewpoints would lead to a better understanding of the relationship between students' participation in the certificate program and their perception of their global competency and skills development for international careers. Findings gleaned from program administrators and faculty could yield additional strategies for producing globally competent students who are able to perform in international careers.

The most striking finding of the study is that center activity participation is not correlated with students' perception of increased global competency and improved skills for international careers. When breaking down the scale variable of center activity participation into single activity components for further analysis, no single activity participation had a relationship with

students' perception of their increased global competency, and only workshops had a significant relationship with students' improved skills for international careers.

Given the indispensable role of center activities in the certificate program, it is worthwhile to investigate in greater detail their connection with students' global competency and skills development for international careers. It would be intriguing to gain students' opinions about the functions of center activities and their relationships with the desired outcomes. Program administrators who are responsible for the operation of center activities would provide additional information, which would be useful for future research.

6.4 CONCLUSION

This dissertation study surveyed college students enrolled in the ASC's certificate program at the University of Pittsburgh as of March 16, 2012 to analyze their perception of influence of participation in the certificate program on their global competency and skills development for international careers. Findings of this study reinforce the hypotheses that students' participation in the certificate program contributes to increased perception of their global competency and improved skills for international careers. Senior students are mostly affected by their participation in the certificate program. Students' international experience and courses taken in the certificate program emerge to be important variables related to students' increased global competency and improved skill for international careers. Students' international experience is tested to be the most important variable, offering an implication for the inclusion of study abroad in the requirements of the certificate program.

APPENDIX A

RECRUITMENT LETTER

Dear Asian Studies Student:

My name is Yuanyuan Wang, a doctoral student in the Department of Administrative and Policy Studies in the School of Education at the University of Pittsburgh. I am conducting a doctoral dissertation study entitled, “Creating the Global Student: Increasing Perception of Global Competency and Skills for International careers in a University International Certificate Program.”

I would like to invite you to participate in an on-line survey that will take 10-15 minutes to complete. There are no foreseeable risks associated with the survey questions or participation in this study. Upon completion of the survey, you will be given an opportunity to participate in a random drawing for an incentive prize. Participants who win the prize will be given an Amazon gift card valued at \$75 in appreciating you for participation in the survey. In total, 5 Amazon gift cards, each valued at \$75, will be given away.

You were selected to participate in this survey because of your involvement with the ASC’s certificate program. Your responses will provide essential information on the effect of international area studies centers in student global competency and skills development for

international careers in an increasingly internationalized world. Findings from this study will serve as a reference for government policy makers and planners, and educational practitioners to potentially identify effective policies for international area studies centers.

Your participation is voluntary, and you may withdraw from this survey at any time. Your answers will be kept strictly confidential and anonymous; I will not use any names or other identifying information in my dissertation.

Should you decide to participate in this research study, please click the following link to begin the survey:

<https://www.surveymonkey.com/s/asianstudiescertificate>

If you are unable to click on the above link, copy and paste it into your web browser.

I thank you in advance for your participation in this research study and look forward to your response.

Sincerely,

Yuanyuan Wang

Doctoral Student

4139 Wesley W. Posvar Hall

230 South Bouquet Street

Pittsburgh, PA 15260

yuw21@pitt.edu

APPENDIX B

ASIAN STUDIES CERTIFICATE STUDENT SURVEY

Student Characteristics

1. What is your current school/college?

Response options:

School of Arts and Sciences

College of General Studies

College of Business Administration

School of Dental Medicine

School of Education

School of Engineering

School of Health and Rehabilitation Sciences

School of Information Sciences

School of Law

School of Medicine

School of Nursing

School of Pharmacy

Graduate School of Public Health

Graduate School of Public and International Affairs

School of Social Work

University Honors College

2. Are you currently in a Bachelor's, Master's, or Doctoral degree program?

Response options: Bachelor's, Master's, and Doctoral

3. When did you begin pursuing this degree?

Response options: 2000-2012

4. When do you plan to graduate from your current program of study?

Response options: 2012 – 2020

5. When did you begin participating in the Asian studies certificate program?

Response options: 2000-2012

6. How many credits have you already completed in the certificate program?

Response options: 0-9, 10-19, 20-29, 30-39, 40-49, 50-59

7. Are you currently enrolled full-time (12 hours or more as an undergraduate; 9 hours or more as a graduate student) or part-time (less than 12 hours as an undergraduate; less than 9 hours as a graduate student)?

Response options: full-time and part-time

8. What is the highest academic degree you plan to obtain?

Response options: Bachelor's, Master's, and Doctoral

Satisfaction with the Certificate Program

9. Please rate your overall experience in your Asian studies certificate program.

Response options: Poor, fair, good, and excellent

10. Considering all courses that you have taken in your Asian studies certificate program as a group, please rate the following aspects of courses offered in your certificate program:

Responses: Poor, fair, good, and excellent

- The content of the courses available to you
- The quality of teaching you received
- The selection of courses available to satisfy your certificate program
- The course guidance you have received from your certificate program academic advisor
- The level of academic rigor
- The quality of opportunities your course provided to engage in educational experiences outside of the classroom

11. What part of your international certificate program was most helpful to you and why?

Response options: [Open Ended]

12. What part of your international certificate program was least helpful to you and why?

Response options: [Open Ended]

13. The following is a list of activities sponsored by your certificate program. Please check the activities you have attended:

Responses: Yes or No

- Student research conference/symposium (e.g., Undergraduate or Graduate Student Conference)

- Lectures (e.g., ‘Asia over Lunch’ lecture series)
- Film screenings
- Workshops
- Art exhibitions, musical and dramatic performances
- Educational public service/outreach programs
- International Week, and cultural festivals

International Experience

14. During my time at Pitt,...

Responses: Yes or No

- I hosted, tutored or had sufficient interaction with international students.
- I have participated in international or intercultural activities on campus.
- I have traveled to Asian area.
- I have participated in a credit-bearing internship or volunteer experience abroad.
- I have studied abroad as a graduate or undergraduate student.

If you have studied abroad as a graduate or undergraduate student, please indicate where and for how long? (Please type in the city, country, and length of time)

15. What has been your single longest period of time spent in an Asian country outside of the U.S.?

- None
- Less than 4 weeks
- 1-6 months
- 7-12 months
- More than 12 months

16. Which of the following describes your perception of international experiences through your Asian studies certificate? (Choose all that apply.)

- An extra, or additional, cost of my education
- An essential part of my education
- A long-term investment in my future career

Foreign Language Capability

17. Did you grow up in a country where English was not the official language?

Responses: Yes or No

18. Can you speak more than one language?

Response options: Yes or No

19. If yes, please rate your ability. (If you speak more than one language other than English, then rate your ability in the one in which you are most fluent.)

- I can speak the foreign language, but can't read it well
- I can read simple prose with difficulty, follow simple conversation, and use the language to get around.
- I can read fairly complex texts, understand ordinary native speakers, and carry on a discussion.
- I can speak with sufficient fluency and accuracy to function in most social and professional situations.
- I am a fluent speaker with the accuracy and range of an educated native speaker of the language.

20. How helpful was your participation in your certificate program for learning a foreign language?

Response options: 1-not very helpful, 2-somewhat helpful, 3-helpful, 4-very helpful, and 5-N/A.

21. What is the highest level foreign language course that you have taken at the University of Pittsburgh?

Response options: First year/Elementary, Second year/Intermediate, Third year/Conversation, Grammar and Composition, Fourth year/Advanced undergraduate, and Graduate level (catalog #2000 and above)

22. Would you agree or disagree that knowledge of other languages will help you to get a job in the career that you are likely to pursue?

Response options: Strongly disagree, disagree, agree, and strongly agree

Global Competency

23. You have examined many different topics and skills throughout your international certificate program coursework. The researcher would like to get a sense of how *competent* you feel you are in the areas listed below. Below, you are asked to consider each area and rate your level of competency NOW, after participating in your certificate program, and also rate your level of competency BEFORE participating in your certificate program. Your responses allow the researcher to gauge the growth that you perceive in your competency as a result of participation in the certificate program.

Response options: Not very competent, Somewhat competent, Competent, and Very competent

- I am knowledgeable about how history has shaped the global problems and issues of today.
- I am knowledgeable about contemporary international and global issues.
- I understand how social forces (economic, political, cultural, etc.) impact current global issues and problems.
- I am knowledgeable about international humanities (arts, literature, music, film, etc.)
- I understand how the processes of globalization affect national interests.
- I understand how policy decisions on international issues are made.

- I am able to speak and understand at least one other language in the area covered by my certificate program.
- I am able to critically compare my culture with others.
- I understand the complexities of intercultural relationships and communication.
- I am good at seeing issues from another person or group's perspective.
- I am good at assessing intercultural performance in social and business settings.
- I am prepared to participate in social and business settings in the area covered by my certificate program.
- I am open to experiences, including those that could be emotionally challenging.
- I am prepared to engage in academic research and writing.

Skills Development for International Careers

24. In the following question, you are asked to rate several types of knowledge and skills. The researcher would like to get a sense of how much your international certificate program improved your knowledge and skills important to international-oriented career opportunities in your major field. Below you are asked to rate your level of agreement on your knowledge and skills NOW, after participating in your certificate program, and also rate your level of agreement on your knowledge and skills BEFORE participating in your certificate program. Your responses allow the researcher to gauge the improvement that you perceive in your knowledge and skills important to international careers as a result of participation in the certificate program.

Response options: Strongly Disagree, Disagree, Agree, Strongly Agree

- I am knowledgeable about current international issues.
- I am able to speak and understand a second language.
- I am knowledgeable about cultures other than my own.
- I am knowledgeable about technical and professional practices in other countries.
- I am able to work with people whose beliefs, values, and worldviews differ from my own.
- I am able to lead a group.
- I am able to generate ideas.
- I am able to work on a team.
- I am able to draw conclusions from data.
- I am able to generate solutions to problems.
- I am able to communicate with people effectively.
- I am able to manage time wisely.
- I am able to access information from a variety of external sources.
- I am able to succeed in an academic or professional career that involves working with complex information.

25. Prior to my experience in the Asian studies certificate program, I planned to pursue a job related to international locations, content and/or foreign languages.

Response options: Yes, No, and Uncertain

26. Now, after experience in the Asian studies certificate program, I plan to pursue a job relating to international locations, content and/or foreign languages.

Response options: Yes, No, and Uncertain

Demographics

27. I was born in...

Response options: Drop down menu of years

28. I am a...

Response options: U.S. citizen, U.S. permanent resident, and international student

29. I am a citizen of...

30. I am...

Response options: Female and male

31. I am...

Response options:

Hispanic

Black

White

Asian or Pacific Islander

Aboriginal (A person having origins in any of the original peoples of North, South, and Central America and Australia, and who maintains a tribal affiliation or community attachment; includes native American and Hawaiian.)

Multi-racial

Other –Text box

32. What else would you like to share not already covered in this survey?

Response option: [Open Ended]

APPENDIX C

PERMISSION LETTER TO USE CEAC-DEVELOPED SURVEY

August 13, 2012

Dear Dissertation Committee:

This letter gives Yuanyuan Wang my permission to use the CEAC-developed student survey entitled “International Certificate Student Survey” for her dissertation study, “Creating the Global Student: Increasing Perception of Global Competency and Skills for International careers in a University International Certificate Program”. I also permit Yuanyuan to use the data collected by CEAC in 2009, which contributes to a comparative analysis of 2009 data and 2012 data in her dissertation.

The permission extends to revision or edition to the survey for her dissertation study. My signing of this letter also confirms CEAC owns the copyright to the survey and data collected in 2009.

Sincerely,



Cynthia Tananis, Ed.D., Director
Collaborative for Evaluation and Assessment Capacity (CEAC)
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