

EXAMINING PREDICTORS OF STUDENT
MOTIVATION TO ENROLL IN A STUDY ABROAD
COURSE FROM A RELATIVE COSTS PERSPECTIVE

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EXAMINING PREDICTORS OF STUDENT
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Abstract: Education abroad is a collection of international learning experiences designed for students to increase their global competence and intercultural communication skills. Short-term study abroad courses, or experiences, are the most popular options for students wishing to gain such. Though empirical evidence supports the benefits of studying abroad, no evidence existed supporting the utility of the EVC model for assessing students' views on the perceived costs of enrollment. This study's purpose was to determine the perceived costs influencing students' motivations for enrollment in a short-term study abroad course or experience. This study examined the effects of gender, previous international experience, and first-generation status on motivation, whether relationships and differences existed between these variables, and perceived costs useful for predicting motivation to enroll. Data were analyzed using exploratory factor analysis, 2 x 2 x 2 factorial designs, Mann-Whitney U tests, and multiple regression analysis. It was concluded that both male and female students were equally motivated to enroll, students with previous international experience were more motivated to enroll than those without such experience, and students were similarly motivated to enroll regardless of college generation status. No statistically significant interaction effect existed between gender, previous international experience, and first-generation status. However, the main effect of previous international experience on motivation was statistically significant. In addition, no statistically significant interaction effect existed between gender, previous international experience, and first-generation status on perceived costs. The main effect of previous international experience on perceived costs, however, was statistically significant. Finally, LOVA cost, previous international experience, task effort cost, and gender predicted motivation to study abroad. It was concluded that the PCoSAI should be used to measure students' perceived costs for enrolling in short-term study abroad courses or experiences. It was recommended that international programs coordinators (1) design targeted educational interventions pertaining to forecasted conceptions of what students view as losing or giving up and the amount of physical or psychological effort they anticipate exerting by enrolling, (2) provide international learning experiences for students before college, and (3) convene panels so students with previous international experience can share such during recruitment events.

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CHAPTER I

INTRODUCTION

U.S. institutions of higher learning endeavor to provide educational opportunities for students to learn about complex issues such as identity, power, privilege, human rights, and culture (Doerr, 2013; Kuh, 2008). Modern teaching and learning practices suggest that high-impact experiences are useful for acquiring knowledge and beneficial for college students from diverse backgrounds (Kuh, 2008). As such, high-impact learning practices are fundamental for developing college student attributes that employers value (Starkey & Osler, 2001), especially those interested in agricultural sciences and related sectors. Such efforts, ultimately, prepare students for a globally connected and multicultural society (NAFSA, 2006).

Nearly 98% of the world population lives outside of the United States, and population projections suggest that is where a majority of future growth will occur (United Nations, 2017). Specifically, that growth represents a large potential market for U.S. agricultural products. Growing international markets for U.S. food, fiber, and natural resources exports will require a globally literate citizenry (Commission on the Future of Higher Education [CFHE], 2006). Providing future leaders, employees, business people, and educators, with opportunities and skills with practical significance in the workplace and classroom is an imperative task if the United States is to remain competitive and function across a global economy (CFHE, 2006). Such efforts will support and inspire the next generation of agriculturally minded persons.

The Commission on the Abraham Lincoln Study Abroad Fellowship Program [CALSAFP] (2005) reflected a similar sentiment by stating, “what nations don’t know can hurt them. The stakes involved in study abroad are that simple, that straightforward, and that important. For their own future and that of the nation, college graduates today must be internationally competent” (p. iv). As international markets grow, U.S. agricultural producers will become increasingly reliant on skilled workers with expertise in international trade, cross-cultural communication, cultural competence, and global awareness (NAFSA, 2006). Kuh (2008) identified a number of high-impact education practices, such as study abroad, for educators to facilitate. In particular, diversity and global learning, including study abroad, offers students opportunities to explore and learn about cultures and worldviews different from their own (Kuh, 2008).

The Institute of International Education [IIE] (2017) noted a majority of students participating in international learning experiences do so in their junior and senior years. Thus, it is the duty of college faculty members to communicate the value of these experiences early in a student’s educational career, including how it will influence future decisions. It also is imperative for students to understand how precursors to behavior and decision-making alter or transform their worldviews and affect their mental schemata. In psychology and cognitive science, *self-schemata* are patterns of thought or behavior that organize information into categories as well as their interrelationships. Self-schemata influence achievement, performance, effort, and persistence (Eccles et al., 1983; Wigfield & Eccles, 1992). In other words, these mental maps or models form connections that result in a framework that ultimately represents individuals’ subjective interpretations of reality, social identity, short- and long-term goals, and self-concept of ability (Eccles et al., 1983).

Self-schemata, unfortunately, can negatively influence or hamper the new information students receive. Evidence of this phenomenon may include embracing the status quo, existing

stereotypes, or other assumptions people make based on prior experience (Eccles et al., 1983; Wigfield & Eccles, 1992). High-impact learning practices, such as study abroad, offer students opportunities to make new connections and challenge prior beliefs and assumptions (Kuh, 2008). This transformational experience results in the creation of new knowledge and connections and grouping of information. A student who participates in study abroad, for example, might develop a *world traveler* schema. To this end, a tremendous amount of time, energy, and research has been devoted to understanding the drivers of choices and performance (Wigfield & Eccles, 2000). In particular, motivation science offers a unique glimpse into human psychology and holds important implications for understanding internal cognitive dynamics (Wigfield & Eccles, 2000). As such, it is useful for establishing empirical evidence that supports causal links between theoretically relevant variables linked to achievement-related choices and performance.

In this regard, college often is the first time a student experiences the notion of diversity and global learning (American Council on Education [ACE], 2008). Despite the increased emphasis on education abroad participation, these efforts have translated little into enrollment growth (IIE, 2017). The increased enrollment patterns that do exist distribute unevenly among differing student populations (IIE, 2017). Moreover, for faculty, administrators, and related agricultural professionals to encourage students to participate in high-impact learning experiences, it is important to use up-to-date psychometric tools (Shultz, Whitney, & Zickar, 2014). These tools evolve constantly. For example, recent advances in motivation science offer a firsthand glimpse into the affective domain, an understudied area of psychology (Barron & Hulleman, 2015), and the perceived barriers students face when planning and making important decisions (Flake, Barron, Hulleman, McCoach, & Welsh, 2015). It is important for students to challenge their schemata, especially if it helps them overcome a perceived barrier that might prevent their participation in transformational learning experiences. The documented benefits of study abroad are vast. In fact, a number of U.S. institutions of higher education have adopted

international strategic plans with the goal of having one-half of all undergraduate students participate in some type of international learning experience before graduation (Estes, Hansen, & Edgar, 2016).

To these points, a need exists to develop an instrument that measures students' affective cost perceptions to understand how internal cognitive dynamics influence their motivations regarding study abroad participation. Data collected with such a measurement tool can support and inform faculty, administrators, and other agricultural professionals to inspire change in students and make meaningful contributions to developing a globally educated citizenry. It is likely that high-impact learning experiences for students, such as study abroad, can inspire the next generation of agricultural professionals to explore worldviews different from their own (Kuh, 2008). The cumulative effect is a globally educated citizenry, a strengthened national security, and an improved society.

Background of the Study

It is imperative that the U.S. produce citizens who are globally competent and aware if it is to remain a competitive force internationally (CFHE, 2006; NAFSA, 2006). The IIE (2017) demonstrated the link between education abroad experiences and critical skills needed in today's multicultural society, which have been shown to be particularly beneficial for agricultural students to possess (Crawford, Lang, Fink, Dalton, & Fielitz, 2011; Harder et al., 2015; Irani, Place, & Friedel, 2006). Unfortunately, numerous students do not receive exposure to education abroad opportunities until college (IIE, 2017).

Institutions of higher learning have recognized the importance of education abroad and designated funding and institutional missions to address it at the college level (NAFSA, 2006). Despite its value, however, too few students in agriculture participate in education abroad (IIE, 2015). A majority of students have indicated their main perceived barriers to study abroad

participation include time, money, knowledge about programming, living arrangements, choice of program destination, and confidence navigating a foreign landscape (Anderson, Hubbard, & Lawton, 2015; Danjean, Bunch, & Blackburn, 2015; Doyll, Gendal, & Neyer, 2010; Estes et al., 2016).

As social scientists continue expanding their understanding of achievement-related choice and performance, a hallmark of quality research in that domain is the persistent use of up-to-date psychometric tools (Shultz et al., 2014). Such tools provide valid and reliable quantitative evidence that is useful for making informed decisions. As theoretical models and psychometric tools evolve, so too should the arguments about and applications of the same. Recent empirical motivation research, for example, has revisited the relative cost component espoused in Eccles et al. (1983) expectancy-value theory of achievement motivation. In previous motivation research, relative cost often has been neglected or ignored altogether (Barron & Hulleman, 2015), and such seems to be the case in education abroad research. Cost is a critical component of achievement-related choices and performance; it has been defined as the negative aspects of task engagement and is believed to influence choice and performance directly (Eccles et al., 1983).

Cost, contextually, asks the question, *Is the amount of time, effort, and resources put forth for education abroad participation worthwhile?* A need exists to examine the literature and apply recent advances in motivation research to understand more clearly how achievement-related choices and performance regarding education abroad participation may be influenced using relative cost as a direct influence. Until now, no existing detailed report links agricultural students' relative cost conceptions to their education abroad participation.

A number of eminent scholars and leaders in education abroad agree that cultural competence and global awareness are requisite skills for global workforce development [GWD] (NAFSA, 2006). For example, according to Darla K. Deardorff, director of the Association of

International Education Administrators, GWD “means preparing individuals with the knowledge, skills, and attitudes necessary to be successful when working with people from different cultures, regardless of location” (NAFSA, 2006, p. 42). William D. Hunter, director of the Lehigh University Office of International Students and Scholars, stated: “GWD is the education process of fostering and supporting the educational globalization effort” (NAFSA, 2006, p. 40). Dr. William E. Kirwan, chancellor of the University System of Maryland, Adelphi, asserted that: “GWD is a new imperative that requires universities to prepare students with a much deeper understanding of the global community, including knowledge of other languages and cultures” (NAFSA, 2006, p. 40).

For GWD to occur, students need opportunities to explore and learn about the world, including cultural customs, values, and belief systems different from their own (Kuh, 2008). Education abroad programs facilitated by U.S. institutions of higher learning endeavor to provide students with such experiences. For example, the College of Agricultural Sciences and Natural Resources (CASNR) at Oklahoma State University (OSU) offers students a number of education abroad opportunities across a variety of program modes: short-term, faculty-led programs; semester and academic year-long programs (reciprocal exchange); affiliated and approved programs (transfer study); national student exchange; and international internships and service-learning projects. The goal is for students to acquire knowledge about other cultures, become more open-minded, and increase their cross-cultural communication skills, so they can compete in an increasingly interconnected and global society (OSU Catalog, 2016–2017; Olson & Kroeger, 2001).

Statement of the Problem

The literature suggests the primary reasons agricultural students refrain from education abroad participation is due to a lack of financial wherewithal, information, and time (Anderson et

al., 2015; Danjean et al., 2015; Doyll et al., 2010; Estes et al., 2016). Andreassen (2003) echoed this viewpoint and reported that both internal and external influences, such as conflict with class schedules and fear of lost opportunities, affect students' decisions regarding education abroad participation. In their pilot-study, Raczkoski, Robinson, Edwards, and Baker (2018) found that students' relative cost conceptions were correlated highly with their decisions to participate in short-term study abroad courses or experiences. Collectively, a consistent theme among existing education abroad literature and factors precluding participation appears to be what students perceived they *lose* or *sacrifice* because of that participation (Andreassen, 2003; Anderson et al., 2015; Danjean et al., 2015; Doyll et al., 2010; Estes et al., 2016; Raczkoski et al., 2018).

Moreover, U.S. institutions of higher learning have developed institutional policies to improve education abroad participation among undergraduates, and such participation can produce graduates more accepting of cultural and ethnic differences, including a respect for diversity (Kreber, 2009; Kuh, 2008). Some institutions, such as OSU, include international education as a core expectation for students to satisfy undergraduate degree requirements (OSU Annual Report, 2015–2016). OSU's International Strategic Plan MMXV set a goal of having at least one-half of all new undergraduate students participate in education abroad before graduation. Further, the Plan posits that through the transformational power of an internationalized campus, the university will position itself as an academic destination for students and scholars from around the world (OSU Annual Report, 2015–2016). To achieve this goal, however, OSU must provide opportunities for students to develop the skills they will need to operate effectively in an internationally and globally interconnected society (OSU Annual Report, 2015–2016).

Unfortunately, participation rates in education abroad programs have declined within certain colleges and academic degree programs (Estes et al., 2016; IIE, 2015). Although undergraduate agricultural students hold mostly positive perceptions, regarding education abroad,

participation rates have stagnated in the last few years (Estes et al., 2016; IIE, 2015). Fifty-five percent of college bound students polled indicated they intended to participate in an education abroad program (ACE, 2008). However, this intent translated into only less than 3% of students actually participating (IIE, 2017). The low participation rates of U.S. agricultural students, specifically, highlights a major problem for the food, fiber, and natural resources sectors, i.e., an entire generation unprepared to face the complexities of global and multicultural challenges in the years ahead (CALSAFP, 2005). Without education abroad, students in colleges of agriculture risk missing personal and professional opportunities necessary for thriving in a constantly changing world.

Today's college students embed their motivations to study abroad in desires for personal growth, which combined with other indirect factors, such as gender and previous international experience, drives intent for participation (Pope, Sánchez, Lehnert, & Schmid, 2014). According to Pope et al. (2014), a large percentage of freshmen indicated intentions to study abroad, yet failed to enroll when the opportunity arose. The time lag between intent and action presents a significant challenge on how to promote education abroad opportunities to college students. Researchers have argued the longer the time lag, the weaker the connection between intent and action becomes (Chintagunta & Lee, 2012; Sheeran & Webb, 2016). In this study, we attempted to control for this time lag by asking students about their motivation in the future tense. Other researchers used this approach to reduce the influence of behavioral controls (Fitzsimmons, Flanagan, & Wang, 2013), such as internal and external forces which might actually determine enrollment.

Need for the Study

The world faces numerous, *wicked problems*. These wicked problems include food insecurity, gender inequality, crime, and corruption, to name a few (English, English, & English,

2015). The United States has tasked itself with collaborating with other countries and entities to tackle problems faced by impoverished people from around the world that are difficult to solve (English et al., 2015). In addition, U.S. involvement abroad serves practical interests like creating new markets and establishing national security (Tarnoff & Lawson, 2016). Achieving these goals, however, requires providing opportunities for U.S. citizens to explore and learn about the world. In practice, this goal refers to the need for developing intercultural awareness and competence at the collegiate level, if not before. The government has identified a need for individuals with language skills, and reported a shortage of individuals possessing such (IIE, 2014).

GWD is crucial for a variety of reasons, including U.S. national security interests (Tarnoff & Lawson, 2016). Just as land-grant colleges and universities endeavor to provide education for the common person, education abroad programs offer learning opportunities for students to acquire skills needed by the U.S. Government to achieve and maintain national security and develop a globally competent workforce. The U.S. Government depends heavily on “individuals knowledgeable about foreign cultures to advance and protect the interest of the American people” (CALSAFP, 2005, p. 6). U.S. foreign policy, including national security, commercial development, and humanitarian assistance, faces a substantial threat to its global competitiveness and viability if education abroad participation continues to wane (CALSAFP, 2005). Likewise, employers worldwide demand globally competent and aware graduates (Osler & Starkey, 2001). If demand for the skills offered through education abroad outpaces the number of students who acquire them, a shortage of individuals with the necessary cross-cultural skills needed to “engage effectively with others” (Olson & Kroeger, 2001, p. 118) will exist.

Currently, the U.S. Government has a number of employment opportunities that require foreign language proficiency (IIE, 2014). The United States Government Accountability Office (2009) reported an insufficient global workforce to meet this need as evidenced by the finding that nearly one-third of the Foreign Service officers in overseas foreign language-designated posts

failed to meet their local language requirements. Taken together, a severe shortage of qualified personnel for GWD exists. In addition, according to Cavanagh (2004), U.S. institutions of higher education are struggling to meet the demands of both college and career expectations, and dwindling education abroad participation of agricultural students compounds these struggles.

To this end, limited research is available pertaining to barriers influencing students' decisions about education abroad participation from a theoretical perspective. Moreover, efforts to investigate such are insufficient but paramount in importance. Recent literature suggests a specific affective cost may exist that can help illuminate students' intentions to participate in education abroad experiences (Raczkoski et al., 2018). The results of this study can help describe the role relative cost plays, if any, in agricultural students' decision-making regarding their education abroad participation.

Because the benefits of education abroad participation have been well-documented in numerous studies (Anderson et al., 2015; Andreasen, 2003; Bunch, Blackburn, Danjean, Stair, & Blanchard, 2015; Bunch, Lamm, Israel, & Edwards, 2013; Carlson & Widaman, 1988; Clark, Flaherty, Wright, & McMillen, 2009; Chang et al., 2013; Danjean et al., 2015; Estes et al., 2016; Goldstein & Kim, 2006; Harder et al., 2015; Kitsantas, 2004; Place, Irani, Friedel, & Lundy, 2004), such is not the central focus of this research investigation. Rather, the focus will remain on direct and indirect factors that preclude or prevent agricultural students from participating in education abroad experiences.

Purpose of the Study

Numerous students fail to receive exposure to education abroad opportunities until they begin college (IIE, 2017). Targeting students' relative cost perceptions in a required, introductory course may be an effective way to ensure introduction to education abroad opportunities early in their academic experience, which, in turn, may inspire students to participate in such experiences

in the future. Therefore, this study's purpose was to identify CASNR freshmen students' perceptions of relative cost factors influencing their motivations to participate in an education abroad program before graduation to create an agricultural student archetype.

Research Questions

A review of literature resulted in the development of seven research questions. These seven research questions guided a description of the relationships between personal and professional characteristics of CASNR students at OSU enrolled in the Freshman Orientation course (AG 1011) during the Fall semester of 2017 and their conceptualizations about relative cost in regard to short-term study abroad courses or experiences:

1. Which items best represent the underlying factors of perceived costs regarding freshmen agricultural students' motivations to enroll in a short-term study abroad course or experience?
2. What were the associations between motivation to enroll in a short-term study abroad course or experience and gender, previous international experience, and first-generation status?
3. Was there an interaction between gender, previous international experience, and first-generation status among students on motivation to enroll in a short-term study abroad course or experience?
4. Was there an association between gender, previous international experience, first-generation status, and perceived costs?
5. What were the associations between perceived costs and motivation to enroll in a short-term study abroad course or experience?

6. How did perceived costs differ when compared by gender, previous international experience, and first-generation status?
7. Could motivation to enroll in a short-term study abroad course or experience be predicted based on gender, previous international experience, first-generation status, and perceived costs?

Definition of Terms

CASNR: College of Agricultural Sciences and Natural Resources at Oklahoma State University.

CASNR offers a wide variety of short-term education abroad opportunities for students to participate in a service-learning project or review of a nation's culture and history. For example, in 2017, these offerings included trips to the Galapagos Islands, China, Czech Republic, Germany Netherlands, Belgium, and France, Israel, Italy and Switzerland, New Zealand, Peru, and Thailand (OSU Catalog, 2016–2017).

Cost: is defined as the negative aspects of task engagement (Barron & Hulleman, 2015). The terms *perceived cost* and *relative cost* sometimes appear interchangeably. However, each one, depending on its usage, demarcates a distinction in the development timeline of the expectancy-value theory. When the term *relative cost* appears, it is meant to represent the usage of Eccles et al. (1983) who defined it in their original model, and the term *perceived cost* represents the most recent use and definition of cost.

Education Abroad: “Education that occurs outside the participant’s home country. Education abroad can include study abroad, research abroad, intern abroad, service-learning abroad, teach abroad, and other program modes as long as these programs are driven to a significant degree by learning goals” (Ogden, 2015, p. 32).

Expectancy-Value-Theory: William Atkinson developed the expectancy-value theory in the 1950s to understand achievement motivation in individuals. Jacquelynne Eccles translated this research into the field of education more than thirty years ago. The theory offers a penultimate view of students' achievement motivation. According to the theory, two factors determine motivation: expectation for success and subjective task value (Eccles et al., 1983).

Expectation for Success: has been defined as one's beliefs about how well they will perform on an upcoming task (Wigfield, 1994).

Global Competence: "the ability to communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge, skills, and attitudes (Deardorff, 2004, p. 194)

Global Workforce Development (GWD): "means preparing individuals with the knowledge, skills, and attitudes necessary to be successful when working with people from different cultures, regardless of location" (NAFSA, 2006, p. 42).

Short-Term Study Abroad Courses or Experiences: a program mode offered to students by OSU. These programs typically are faculty-led courses or experiences. They range in duration from one to eight weeks and allow students to receive academic credit and financial support. They are useful for transforming student interest in foreign languages, changing their worldviews, and increasing participants' interests in conducting multidisciplinary research (OSU Catalog, 2016–2017).

Study Abroad: "A subtype of education abroad that results in progress toward an academic degree at a student's home institution. Students generally enroll in academic coursework for a traditional classroom-based experience abroad. Depending on the selected program,

academic credit will be earned via the host institution or via the home institution”
(Ogden, 2015, p. 32).

Subjective Task Value: has been defined as how tasks meet individuals’ needs. Historically, four major components of subjective values have been explored: attainment value; intrinsic value, utility value, and cost (Eccles et al., 1983).

Limitations of the Study

1. The study was limited to incoming CASNR freshmen students at OSU enrolled in AG 1011, a freshmen orientation course, during the Fall 2017 semester.
2. Time and resources limited the scope of the study and sampling methodology.
3. The study’s findings are limited to all freshmen enrollees in CASNR 1011 at Oklahoma State University.
4. The study’s measurement tools relied on self-reported data.
5. Several outliers were present in the data analyzed for the study.
6. The researcher was unable to contact nonrespondents to control for nonresponse error.

Assumptions of the Study

Assumptions for this study included:

1. Students objectively reported their perceived costs of short-term study abroad course or experience participation.
2. Extra credit points provided by the course’s lead instructor motivated students to participate in the research study.

Chapter Summary

This chapter provided an overview of research related to relative cost in response to low participation rates among U.S. students in colleges of agriculture regarding education abroad

programs. The need for the study was discussed, which led to seven research questions. The chapter also included definitions of key terms, operationalizing key concepts relevant to the study, as well as its limitations and assumptions. Chapter II will expand on the literature introduced in this chapter, and will feature the conceptual and theoretical models that framed the study. In addition, literature related to expectancy-value theory, the expectancy-value-cost model, motivation, and a national research agenda relating to education abroad will be discussed.

CHAPTER II

REVIEW OF LITERATURE

This chapter provides an in-depth review of the literature related to the study's conceptual and theoretical framework, including variables of interest used to answer this study's research questions. Divided into three main sections, this chapter includes descriptive information pertaining to U.S. education abroad programs, selection and use of a theoretical framework, and relative cost as a critical influence on education abroad.

Purpose of the Study

Numerous students fail to receive exposure to education abroad opportunities until they begin college (IIE, 2017). Targeting students' relative cost perceptions in a required, introductory course may be an effective way to ensure introduction to education abroad opportunities early in their academic experience, which, in turn, may inspire students to participate in such experiences in the future. Therefore, this study's purpose was to identify CASNR freshmen students' perceptions of relative cost factors influencing their motivations to participate in an education abroad program before graduation to create an agricultural student archetype.

Education Abroad in the United States

In 1923, the first U.S. education abroad program originated at the University of Delaware (Hoffa, 2007). Study abroad, i.e., a subtype of outbound educational opportunities (Ogden, 2015), served as a mechanism that sought national security vis-à-vis peace and unity among nations. The

mutual exchange of ideas and information pertaining to a country's language, culture, and history extended from the notion the exchange would result in the betterment of society. Hoffa (2007) pointed to evidence of study abroad programs in the United States as early as the 1920s. The pre- and post-World War eras separates the historical timeline of U.S. education abroad into two distinct periods.

In the aftermath of the First World War (WWI) and the Second World War (WWII), the U.S. Government took a keen interest in the teaching and learning of foreign languages to American citizens in an attempt to create a globally educated citizenry. During this period, notions of intercultural awareness and foreign language were viewed primarily as the hallmark of members of high society (Gilman, 2000). However, the elevation of cultural understanding and foreign language competency shifted these skills to more practical purposes (Gilman, 2000), such as U.S. national security.

Because of its elevated status, the Board of Foreign Scholars established the Fulbright Scholar Act (P. L. 79-584) of 1946 to institute a national exchange program. The act sought to create a system by which American scholars could “study abroad at the graduate level, teach in an elementary school or secondary school, lecture in a college or university, or conduct postdoctoral research. Similar opportunities [were] offered to citizens of other countries who come to the United States” (Fulbright, 1976, p. 2). In short, the act promoted the exchange of university scholars between participating countries. Today, international education and exchange are still viewed as cornerstones of U.S. national security and foreign policy.

U.S. institutions of higher education have played a substantive role in developing well-rounded individuals who become socially conscious and productive members of the global workforce. At the same time, “[h]owever, higher education in the U.S. is increasingly being asked to justify its value and demonstrate that students are learning essential knowledge and skills”

(Ogden, 2015, p. 2). Because of the ever-changing role of U.S. higher education systems regarding the increased pressure to assess student-learning outcomes, the knowledge students acquire through education abroad is of greater importance than ever before (Ogden, 2015). Further, key stakeholders called for an understanding of the totality of education abroad experience, or lack thereof, for the past decade (Bolen, 2007; Engle & Engle, 2003; McLeod & Wainright, 2009; Poole & Davis, 2006; Stearns, 2009).

Education abroad is the vast category of outbound educational opportunities for students, and serves as a distinct experience type. According to Ogden (2015), at least 13 notable gaps and needed research foci exist for education abroad. Ogden (2015) cited dramatic changes in the internationalization of U.S. higher education efforts, technological advancements, transportation, and communication avenues as the impetus for confirming or disconfirming long held beliefs and untested assumptions regarding education abroad. The gaps identified by Ogden (2015) included: programming; program mobility models; experience types; curriculum integration; career integration; technology; host community impact; institutional impact; financial issues; participation; global citizenship; push and pull factors; and institution type.

Moreover, Ogden (2015) noted how the focus on education abroad research has increased substantially over the past few decades, with a strong emphasis on program/enrollment variables and predictor variables and outcomes. These categories represent the current trend of research on education abroad. Early studies regarding education abroad research sought to demonstrate the knowledge or skills students acquired during the experiences, mostly focusing on a single domain. For example, Carlson, Burn, Useem, and Yachimowicz (1990) found students' motivation prior to education abroad influenced their achievement and performance relating to their experiences abroad.

Later, investigation into education abroad expanded and transected multiple domains, such as student intercultural sensitivity (Anderson, Lawton, Rexeisen, & Hubbard, 2006); global awareness (Chieffo & Griffiths, 2004); open-mindedness (Kitsantas & Meyers, 2001); and intellectual development (McKeown, 2009). A frequently cited longitudinal study conducted by the IIE queried thousands of alumni over a 50-year timespan (Dwyer, 2004). In another study, Goldstein and Kim (2006) found that students who studied abroad had statistically significantly different views than those who did not participate regarding prejudice, ethnocentrism, foreign language interest, and concerns about completing their degree program.

Research has addressed low participation rates in education abroad, identifying several factors. One major theme that appears to be constant is education abroad remains an option chosen primarily by Caucasian females, while males, minorities, and economically disadvantaged students are less likely to participate (Ogden, 2015). These findings were refuted by Relyea, Cocchiara, and Studdard (2008) who found that females were statistically significant less likely to study abroad than males. According to national statistics compiled by the IIE (2014), females represented 65% of education abroad is annual enrollment. Moreover, research has shown that males and females perceive education abroad differently (Anderson, 2003; Martin & Rohrllich, 1991; Medina-Lopez-Portillo, 2004). Specifically, understanding how education abroad participation and program modality vary by agricultural students' personal and professional characteristics, such as gender and socio-economic status, is priority for inquiry.

Another substantive factor in education abroad participation is previous international experience. Research suggests that students with previous international experience express greater cultural awareness, openness, and independence (Gerner, Perry, Moselle, & Archbold, 1992; Martin, 1987; McKeown, 2009). However, Ogden (2015) noted the "relationship between previous international travel experience and participation in education abroad remains unclear

due to inconsistent empirical findings” (p. 6), thus warranting further investigation (see Carlson et al., 1990; Hembroff& Russ, 1993; Opper, Teichler, Carlson, 1990).

Education Abroad Experience Types and Mobility Modes

IIE’s 2017 *Open Doors* reported that nearly 330,000 students received academic credit for completing a study abroad course during the 2015-2016 school year, which translated into a nearly 4% increase from the prior year. Despite stalled growth in recent years, the total number of American students studying abroad more than tripled during the last decade (IIE, 2017). This increase was roughly a 46% increase since 2005. Yet despite high enrollment rates, only 10% of U.S. undergraduates participate before they graduate (IIE, 2017).

The Report provided guidance on the leading destinations for U.S. students participating in education abroad and international experiences for academic credit. The United Kingdom is the leading destination for American students seeking such experience. The Report also indicated that Texas A&M University – College Station served as the leading land-grant institution (second overall) by total number of students studying abroad for academic credit, with a reported 3,683 undergraduates participating during the 2015/2016 academic school year. Among STEM fields, i.e., agriculture, engineering, health professions, math or computer science, and physical or life sciences, agriculture accounted for 2.5% of total student participation in study abroad programs, placing it second to last in terms of participation rates among STEM majors and all fields of study at U.S. institutions of higher education (IIE, 2017).

The majority of U.S. college students participate in education abroad experiences during either their junior or senior year (IIE, 2017), highlighting the importance of early recruitment for such. Data on the duration of U.S. students studying abroad for academic credit revealed various patterns of enrollment. Formal opportunities for U.S. students to study abroad range in duration: eight weeks or less during the academic year; summer term; one semester; and a full academic

year (see Figure 1). One semester and two to eight week programs during the summer term were the most popular options for U.S. students, accounting for 31.9% and 30.4% of student enrollment, respectively (IIE, 2017).

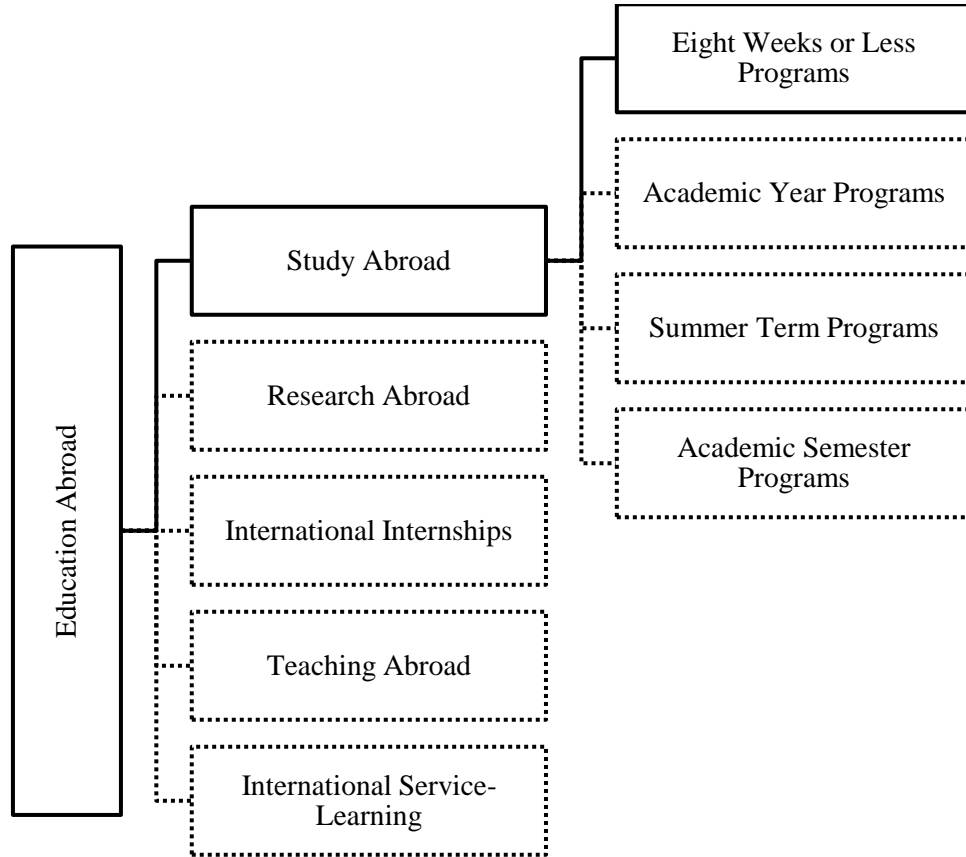


Figure 1. Education Abroad Experience Types and Mobility Modes. Adapted from Ogden (2015).

Eight Weeks or Less Programs offered through CASNR at OSU

CASNR at OSU offers a number of study abroad courses or experiences that fall into the eight weeks or less category, referred to from this point onward as short-term study abroad courses or experiences. These programs typically are referred to as faculty-led, short-term study abroad courses or experiences. In fact, each of these OSU course offerings lasted three weeks or less. In the 2017 Spring and Summer semesters, CASNR offered eight faculty-led, short-term

study abroad courses or experiences. Table 1 illustrates the total number of participating students, including duration of the trip; estimated fees, airfare, tuition in U.S. dollars, and estimated average cost per day in U.S. dollars. The lengths of the courses or experiences ranged in duration from 10 to 17 days, and included focuses in landscape architecture, agricultural economics, horticulture, and animal science, to name a few. China was the most inexpensive short-term study abroad opportunity for students, lasting 17 days for an estimated average cost of \$212 per day. Guatemala was the shortest course or experience (10 days) with the highest average estimated cost, i.e., \$340 per day (see Table 1).

Table 1

CASNR's Short-Term Study Abroad Courses offered during the Spring/Summer of 2017

Location	# of Participants Receiving OSU Credit	Duration (days)	Est. Fees, Airfare, & Tuition (\$)	Est. Average Cost per Day (\$)
China	6	17	\$3,600	\$212
Thailand	8	15	\$3,400	\$227
Peru	6	14	\$3,225	\$230
Ghana	6	10	\$2,350	\$235
Czech Republic	18	12	\$3,097	\$258
Ireland	12	14	\$3,695	\$264
New Zealand	22	13	\$3,650	\$281
Guatemala	3	10	\$3,400	\$340

Study Abroad Participation

The literature suggests that students choose to participate in education abroad for a number of reasons, such as perceived impact on employment after graduation, networking, and improved understanding of intercultural communication. The bulk of the findings support the notion that women are more likely to declare intention and actually participate in education abroad (Hackney, Boggs, & Borozan, 2012; Goldstein & Kim, 2006; Stroud, 2010). Notable

findings from a study conducted by Place et al. (2004) included statistically significant predictors of intention toward international participation, such as years in college, language, fluency in another language, and perceived prior knowledge.

Other studies have explored the antecedents of students' education abroad participation. Bunch et al. (2013) assessed students' motivation to participate in education abroad and posited that agricultural educators can influence their intention by understanding students' motivations. They identified a number of statistically significant predictors of intention, including number of international experiences while in college, gender, and fluency in another language. Murphrey, Lane, Harlin, and Cherry (2016) investigated pre-service agricultural educators' conceptions of their intentions to participate in education abroad and found that preference for group travel, experiential learning activities, and advanced planning were the biggest contributors. Other studies found that parents were a likely source of influence on students' intentions in higher education (Vernon, Moos, & Loncarich, 2017).

Numerous studies have investigated the impact household income has on students' participation in education abroad (Dessoff, 2006; Presley, Damron-Martinez, & Zhang, 2010; Relya et al., 2008; Salisbury, Umbach, Paulsen, & Pascarella, 2009; Stroud, 2010). The relationship between household income and intention to participate in education abroad is unclear. Stroud (2010) found no relationship between household income and intention to study abroad, but Salisbury et al. (2009) indicated that women from low-income families were less likely to study abroad. In contrast, Relyea et al. (2008) found underrepresentation in actual participation of low-income students.

Investigating perceived barriers is another way to understand students' reasons for education abroad non-participation. Numerous research studies have investigated conceptions of barriers that preclude education abroad participation. Dessoff (2006) reported that institutional

barriers explain why most student participation skews toward students with higher socio-economic status. Anderson et al. (2015) examined the relationships between students' perceived barriers to study abroad, their choice of program, and their intercultural competence. They concluded that motivation was an important influence on students' decisions to participate and was linked to perceived difficulties regarding program choice and living arrangements. Gordon, Patterson, and Cherry (2014) cited financial concerns and opportunity cost as the primary barriers to student participation in a study abroad learning experience.

Similarly, Danjean et al. (2015) examined the barriers influencing students' decision to study abroad. The researchers found that financial cost and lack of information regarding international experiences were the largest perceived barriers to participation. In addition, students with low motivation to participate did not view education abroad as a worthwhile experience. Pope et al. (2014) argued that gender, parents' education level, previous international experience, age, and household income moderates' students' decisions to study abroad. In addition, researchers examined perceived barriers that influenced students' intentions to study abroad and found several factors, such as financial concerns, work commitment, and personal relationship status, were statistically significant (Fitzsimmons et al., 2013).

Theoretical Framework

Diversity and global learning programs, such as short-term study abroad courses, are popular options for providing students with experiences that facilitate notions of intercultural understanding, global competence, and opportunities to explore complex issues of identity, power, privilege, and culture (Doerr, 2013; Kuh, 2008). This phenomenon includes students studying in the agricultural and related sciences and those preparing for careers likely to involve intercultural and international interactions. However, conceptualizing intercultural and global competency is complicated (Deardorff, 2006; Doerr, 2013), and not all students have the financial

means or desire to study abroad. The IIE (2017) identified short-term study abroad courses or experiences as the most popular options among other study abroad modes for U.S. undergraduates. Students' motivations and barriers regarding participation in such have been shown to influence their future academic and professional choices (Anderson et al., 2015; Bunch et al., 2013; Danjean et al., 2016; Doyle et al., 2010; Estes et al., 2016; Lee, Therriault, & Linderholm, 2012).

However, investigations into this domain implicate the interrelationships between individuals' self-perceptions and idealized self-images. The divide is the person subjectively perceived by him- or herself and, thus, experiences oneself to be versus the idealized self-image of who an individual wish themselves to be (Horney, 1937). In other words, the difference is who the individual *is* and who that person *wishes to be*. For example, *Will I be someone who participates in a short-term study abroad course or experience?* The reality is people rarely live up to their idealized self-images because these self-projections are often unrealistic and contradictory (Paris, 1996).

Affective memories, i.e., retrospective appraisals of previous experiences, have been shown to influence task values and achievement-related choices and performance (Eccles et al., 1983; Schunk, Meece, & Pintrich, 2014). External projections of the idealized self-image also have been shown to influence task-choice (Eccles et al., 1983; Schunk et al., 2014). Taken together, a person's internal dialogue and external influences eventually manifest as behavior. Thus, if affective memories of diversity and global learning, i.e., study abroad learning experiences, are perceived negatively, the individual may become conditioned against future experiences or idealized self-images, which might activate undesirable emotions along with less value to study, travel, or work abroad in the future (Schunk et al., 2014). It is important to understand these determinants of behavior early in students' academic careers so short-term

decisions do not have long-lasting negative impacts, e.g., deciding not to study abroad for the wrong reasons.

Expectancy-Value Theory of Achievement Motivation

Motivation science offers a number of options for understanding internal and external processes that affect student motivation (Pintrich, 2003). In this study, a derivative of Eccles et al. (1983) expectancy-value theory (EVT) was used to understand how students conceptualize the negative aspects of short-term study abroad participation, including how the agricultural student profile varies by program mobility mode and experience type. Eccles et al. (1983) translated the model into education research more than 30 years ago. EVT captures global motivation dynamics that predict or explain achievement-related behavior. They originally translated the EVT model into education research to understand achievement in mathematics (Eccles et al., 1983). Afterward, however, the theoretical framework has enjoyed widespread use, as researchers apply it broadly and regard its ability to capture motivation dynamics in a variety of contexts and populations.

Achievement-related choices and performance, as described by Eccles et al. (1983) model, offer a penultimate view of how students' social world, cognitive processes, and motivational beliefs predict achievement behavior. The model posits that achievement behavior is a function of expectation of success and subjective task value components (see Figure 2).

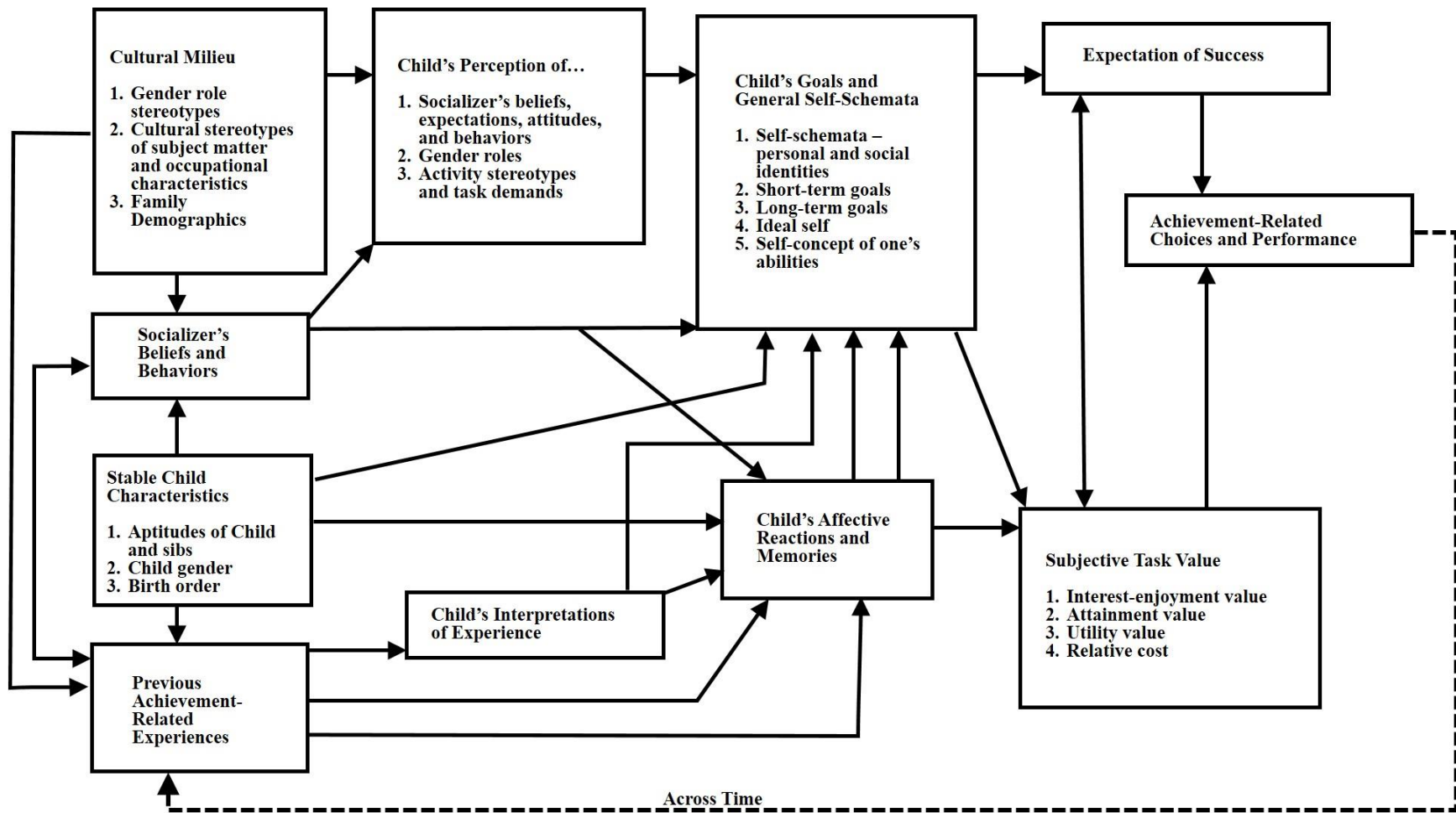


Figure 2. Wigfield's and Eccles' (2000) Expectancy-Value Theory of Achievement Motivation Model. Reprinted from "Expectancy-Value Theory of Achievement Motivation," by A. Wigfield and J. Eccles, 2000, *The Journal of Contemporary Educational Psychology*, 25, p. 69.

For example, consider the following three students enrolled in a college of agriculture (adapted from Barron & Hulleman, 2015). International agriculture is challenging for Parker, but by exerting effort and seeking assistance, he has found success in international agriculture coursework. However, the idea of gaining experience in international agriculture through a short-term study abroad course frightens him. Despite his best attempt, he cannot bring himself to enroll in a short-term study abroad course or experience. Now he lacks confidence in his ability, and his motivation to pursue a career in international agriculture has diminished. In contrast, international agricultural coursework is easy for Brandy. She always excels in her international courses. However, her motivation to work in international agriculture and gain experience through short-term study abroad course participation disappeared suddenly. Brandy struggles to see the value of such courses and related experiences and benefits it might hold for her future. Tanya, however, loves international agriculture and does very well in related coursework. She is interested in several agriculturally related careers that value short-term study abroad coursework or experiences, but lately she finds herself engaged in too many activities and does not have enough time to participate. In addition, her grades in her international agricultural coursework are beginning to suffer. She has enough confidence and interest to succeed, but she cannot find time to finish everything. Her motivation for international agriculture and related experiences has waned.

Each of these three students has unique motivational challenges. In Parker's case, he lacks confidence in his ability to succeed in international agriculture and related short-term study abroad courses. Brandy fails to see the value of studying international agriculture and participating in short-term study abroad courses or experiences. However, Tanya's challenge is a bit different. She possesses confidence and interest for international agriculture and participating in short-term study abroad learning experiences, but she is engaged in too many outside activities

and other coursework to participate. Tanya's experience illustrates the relative cost component in EVT.

A literature review revealed an abundance of attention focusing on students' motivational beliefs regarding their choices to engage in a task or domain (Wigfield & Eccles, 2000). To simplify and guide these efforts, researchers integrated theories of self-regulation and expectancy-value models of achievement motivation and organized such in four major sections to help compartmentalize motivational beliefs, values, and goals. These efforts provided clarity and direction for future motivation research (Eccles & Wigfield, 2002), and included:

1. Theories focused on expectancies for success, i.e., self-efficacy theory and control theory;
2. Theories focused on task value, i.e., intrinsic motivation, self-determination, flow, interest, and goals;
3. Theories integrating expectancy and value, i.e., attribution theory, expectancy-value models of achievement motivation, and self-worth theory; and
4. Theories integrating cognition and motivation models, i.e., social cognitive theories of self-regulation and motivation and theories of motivation and volition

The bulk of this research focused on expectancy and value, as well as their relation to academic outcomes. Expectancy has a tendency to be predictive of performance, and value is more predictive of interest outcomes (Eccles et al., 1983; Wigfield & Eccles, 2000). Despite the relationship between expectancy, value, and educational outcomes, motivation research suggests "an overall negative picture of student motivation" (Barron & Hulleman, 2015, p. 4). The current study focused on theories integrating expectancy and value, specifically how the relative cost sub-component of subjective task value predicts a student's motivation to participate in a study abroad course or other related learning experience.

Review of EVT Component: Relative Cost

During the past decade, researchers revitalized their efforts to understand the effect of relative cost in different academic domains and settings (Barron & Hulleman, 2015; Eccles & Wigfield, 2002; Flake et al., 2015; Raczkoski et al., 2018; Wigfield & Cambria, 2010). Yet in previous research, they often neglected or ignored altogether the EVT relative cost dimension (Barron & Hulleman, 2015). Recent motivation research into theories integrating expectancy and value, however, has focused on the forgotten or ignored EVT relative cost component. Eccles and Wigfield (2002) noted that apart from attribution theory, affective domains, such as cost, have received little attention in motivation research. They suggested that cost is a critical component value and such conceptions include the negative aspect of engaging in a task. Wigfield and Cambria (2010) proposed that researchers should investigate the understudied relative cost factor more deeply. As a result, a surge in the number of research studies focused on expanding the definition of cost and developing better ways for its measurement in various academic settings occurred (Barron & Hulleman, 2015; Flake et al., 2015; Raczkoski et al., 2018). In this study's context, students' conceptions of relative cost regarding short-term study abroad courses or experiences may influence their future academic and professional choices to participate in such learning opportunities.

Measuring cost. Cost is the least studied component of the EVT model (Barron & Hulleman, 2015). In the EVT model, the phenomenon under investigation is referred to as relative cost, and offers an opportunity to explore factors that preclude participation in short-term study abroad courses or experiences. Eccles (2005) defined relative cost as the amount of effort exerted and what is lost or foregone because of task completion. Researchers, initially, introduced cost as a mediator and believed it affected subjective task value. However, researchers' understanding of the notion of cost resulted in a growing body of literature and, over time,

conceptions of such changed. The first attempt to measure relative cost began in a 1980 report generated by Eccles under her given name (see Parsons et al., 1980; as cited in Flake et al., 2015).

Later, Eccles et al. (1983) described relative cost as a factor that might affect individuals' achievement-related choices and performance. They posited that relative cost demotivates students from participating in certain academic tasks. In other words, researchers conceived that cost subtracted negatively from the overall value a student placed on a task. Researchers have posited that motivation for academic subjects deteriorates during the course of an academic experience (Barron & Hulleman, 2015; Eccles et al., 1983; Wigfield, Tonks, & Klauda, 2009), therefore, highlighting the importance of early-targeted interventions. In the EVT model, Eccles et al. (1983) hypothesized that cost consisted of three sub-factors: task effort, loss of valued alternatives, and psychological. Task effort meant the amount of effort exerted on a task. Loss of valued alternatives referred to what was lost or given up as a result of participation. Psychological cost composed the emotional state resulting from task failure.

In 1995, Eccles and Wigfield revisited the measurement properties of the scale. Their work provided psychometric evidence of three task value factors, i.e., interest, attainment, and utility, referred to globally as *subjective task value*, a combined expectancy/ability-related beliefs factor, and task difficulty factors, i.e., difficulty and effort. However, this research included no direct measure of relative cost. Wigfield and Eccles (2000) expanded their definition of psychological cost to include anxiety and affective perceptions regarding task engagement. As a result, psychological cost was renamed *emotional cost*. Other researchers have even developed psychometric measures of students' perceptions of cost (Battle & Wigfield, 2003; Conley, 2012; Perez, Cromley, & Kaplan, 2014; Trautwein et al., 2012). Their findings provided empirical evidence that the three sub-dimensions of cost differed from the components of task value. However, no clear consensus emerged regarding how to operationalize or measure cost (Flake et al., 2015).

Battle and Wigfield (2003) designed a study to examine how undergraduate college women's value of graduate education predicted their intentions to attend graduate school. They assessed the cost aspect of task value, as defined originally by Eccles et al. (1983). The researchers were interested in how perceived cost related to women's intentions to enter graduate school, if considering concerns about the cost of career attainment. They cited research that suggested present-day women perceive cost to be less of an issue when considering career and family planning (Hallett & Gilbert, 1997). In their study, Battle and Wigfield (2003) measured anticipated costs associated with pursuing a graduate education with a 24-item instrument. They divided the set of items into four distinct groups: 1) five items for personal effort; 2) six items for loss of time for other valued activities; 3) six items for psychological cost; and 4) seven items for success despite the cost. Exploratory factor analysis results failed to identify distinct factors, with nine of the 24 items loading on a single cost factor. Researchers isolated the remaining nine items to form a cost subscale.

Watkinson, Dwyer, and Nielsen (2005) used EVT components to assess children's engagement in recess activities from an achievement perspective. They concluded that children's perceived cost of recess activity participation related to their decisions to participate. The study used qualitative research methods. The researchers interviewed 10 third grade children using an interview protocol developed around EVT constructs, and concluded that children distinguished among EVT components, including cost.

Chen and Liu (2009) conducted a study of Chinese students in China to determine what types of perceived cost existed in physical education and how it affected motivation. Open-ended questions and interviews were used to investigate the perceived cost dimension of EVT. They concluded that strong values for physical activity are likely to outweigh the perceived cost of participation. Disappointment regarding the curriculum emerged as a major cost to students' motivations. Their investigation also found evidence of an additional cost dimension not reported

previously. This motivated Flake et al. (2015) to include *an additional outside effort cost dimension* to understand what drives student behavior apart from the task of interest.

Luttrell et al. (2010) developed a self-reported inventory, i.e., the Mathematics Value Inventory (MVI), which assessed perceived value of math literacy. The MVI included four areas perceived to influence achievement-related choices and performance: interest; utility; attainment value; and cost. The researchers grounded their inventory in Eccles et al. (1983) expectancy-value model. They noted that minimizing cost enhances achievement motivation. In other words, their findings support the notion that interest, attainment, and utility had an inverse relationship to cost. The investigators defined cost as a subjective estimate of loss. The final cost measure consisted of seven items defining a universal cost factor: four items for emotional consequences and three items for math difficulty.

Chiang, Byrd, and Molin (2011) investigated childrens' perceived costs in the context of exercise, and provided empirical evidence that perceived cost is distinct from other components of EVT. Moreover, Chiang et al. (2011) concluded that cost related to children's physical activity levels, and perceptions of such vary by gender. In their study, they developed three perceived cost items to represent each cost dimension proposed by EVT. The items combined to form a single perceived cost score. Conley (2012) conducted a quantitative investigation that included two items measuring the loss of valued alternatives dimension of cost proposed by EVT. Trautwein et al. (2012) assessed cost using two items representing the amount of effort exerted for an activity and the loss of valued alternatives. In both studies, factor analyses revealed cost separated into its own unique factor, and provided theoretical support distinguishing it from other dimensions of EVT. Moreover, both investigations concluded that cost correlated negatively with expectancy and value.

Perez et al. (2014) extended the work of Battle and Wigfield (2003) by adapting 20 items to capture cost of effort, loss of valued alternatives, and psychological cost. The investigation labeled the loss of valued alternatives cost as opportunity cost. Factor analysis supported a three-factor structure for the cost sub-dimensions. Two of the three factors statistically significantly predicted intention to quit a STEM major, with the cost of effort subscale having the strongest effect size. Therefore, Perez et al. (2014) offered the first evidence that the theorized sub-dimensions of cost contributed to understanding student behavior. Flake et al. (2015) provided the most comprehensive examination of cost literature to date. Their work built on and extended previous research into the perceived cost dimension of EVT. In their study, they developed a 19-item cost scale with four dimensions: outside effort cost; loss of valued alternatives cost; task effort cost; and emotional cost. In addition to confirming the factor structure, the researchers operationalized each cost dimension resulting from recent advancements as provided by empirical investigations.

In summary, a growing body of evidence indicated that adolescents and young adults consider cost when making academic choices. This literature review suggests cost is a salient factor for understanding differences regarding a number of different academic outcomes. However, from an EVT standpoint, researchers systematically understudy perceived cost. The findings from some investigations suggested additional work to assess the multidimensionality of cost. Studies using other frameworks explored perceived barriers, but included constructs beyond the scope of EVT.

Expectancy-Value-Cost Model of Achievement Motivation

The Expectancy-Value-Cost (EVC) model emerged as a sound theoretical framework focused on the relative cost component proposed in EVT (Barron & Hulleman, 2015). According to the EVC model, researchers should differentiate cost from expectancy and value because it is

theoretically distinct (Flake et al., 2015). Barron and Hulleman (2015) posited that cost separates into its own unique factor, rather than loading negatively on the other two higher-order factors: expectancy and value. Their research suggests that expectancy/ability-related beliefs and subjective task value correlated negatively to cost. I chose the EVC model as the theoretical framework to guide this research study because it provides a clear rationale for understanding students' achievement behavior. Specifically, I chose this model because of the understudied relative cost dimension, as well as its predictive capacity regarding achievement-related choices and performance, its contribution to creating a globally competent and aware U.S. citizenry, and because of its alignment and ability to address notable gaps within education abroad literature. I adopted Flake et al. (2015) conception of perceived cost, including their cost scale, as it represents the most recent advances in motivation research regarding the understudied construct of cost, i.e., outside effort cost, task effort cost, loss of valued alternatives cost, and emotional cost.

EVC Components

The EVC model aims to distinguish itself from previous iterations of the EVT model by promoting relative cost as a standalone factor that influences achievement-related choices and performance. The model purports three determinants of achievement behavior: expectation for success; subjective task values; and perceived costs (see Figure 3). However, this study's purpose was to use only a portion of this model. When developing the model, Flake et al. (2015) conducted several focus group interviews with college students to understand their perceived costs regarding coursework. Their efforts resulted in the development of a comprehensive scale that built on previous research on cost. Flake and colleagues (2015) confirmed their cost scale using exploratory and confirmatory factor analyses. The researchers found that cost was separate from expectation for success and subjective task value. In addition, they provided evidence for an additional cost sub-dimension. Their work led to the development of a 19-item cost scale with

four theorized sub-dimensions (see Figure 4). The empirical research supporting the new cost sub-factor, called *outside effort cost*, relates to the amount of time, effort, and resources put forth for tasks other than the task of interest (Flake et al., 2015).

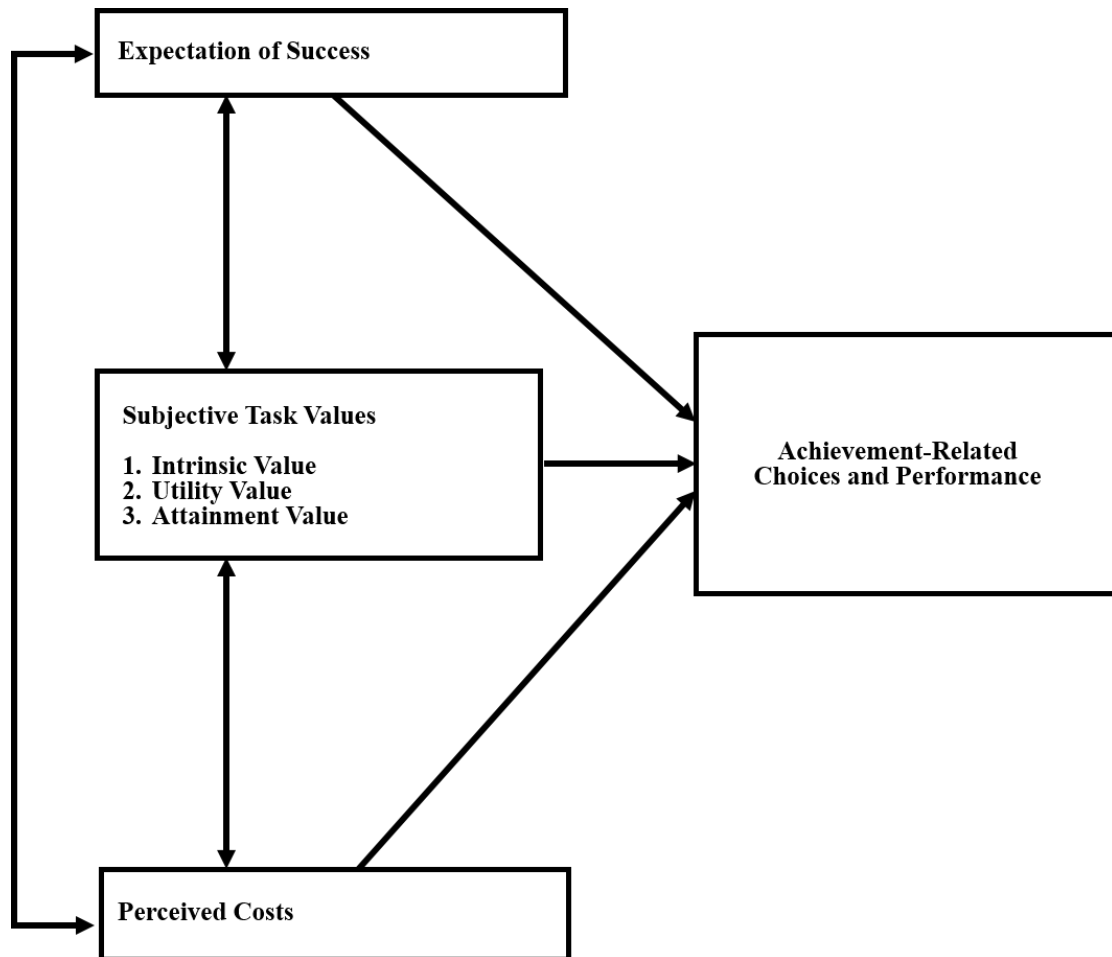


Figure 3. Updated Expectancy-Value-Cost Model of Achievement Motivation. Reprinted from Chapter 8: Student Motivation: Current Theories, Constructs, and Interventions within an Expectancy Value Framework, by C. Hulleman, K. E. Barron, J. J. Kosovich, and R. Lazowski, 2016.

Flake et al. (2015) created a new operational definition of cost, including each cost dimension.

Task effort cost[s] [are] negative appraisals of time, effort, or amount of work put forth to engage in the task, [o]utside effort cost[s] [included] negative appraisals of time, effort, or amount of work put forth for tasks other than the task of interest, [l]oss of valued alternatives cost [included] a negative appraisal of what is given up as a result of engaging in the task of interest, and [e]motional cost [included] negative appraisals of a psychological state that results from exerting effort for the task. (p. 237)

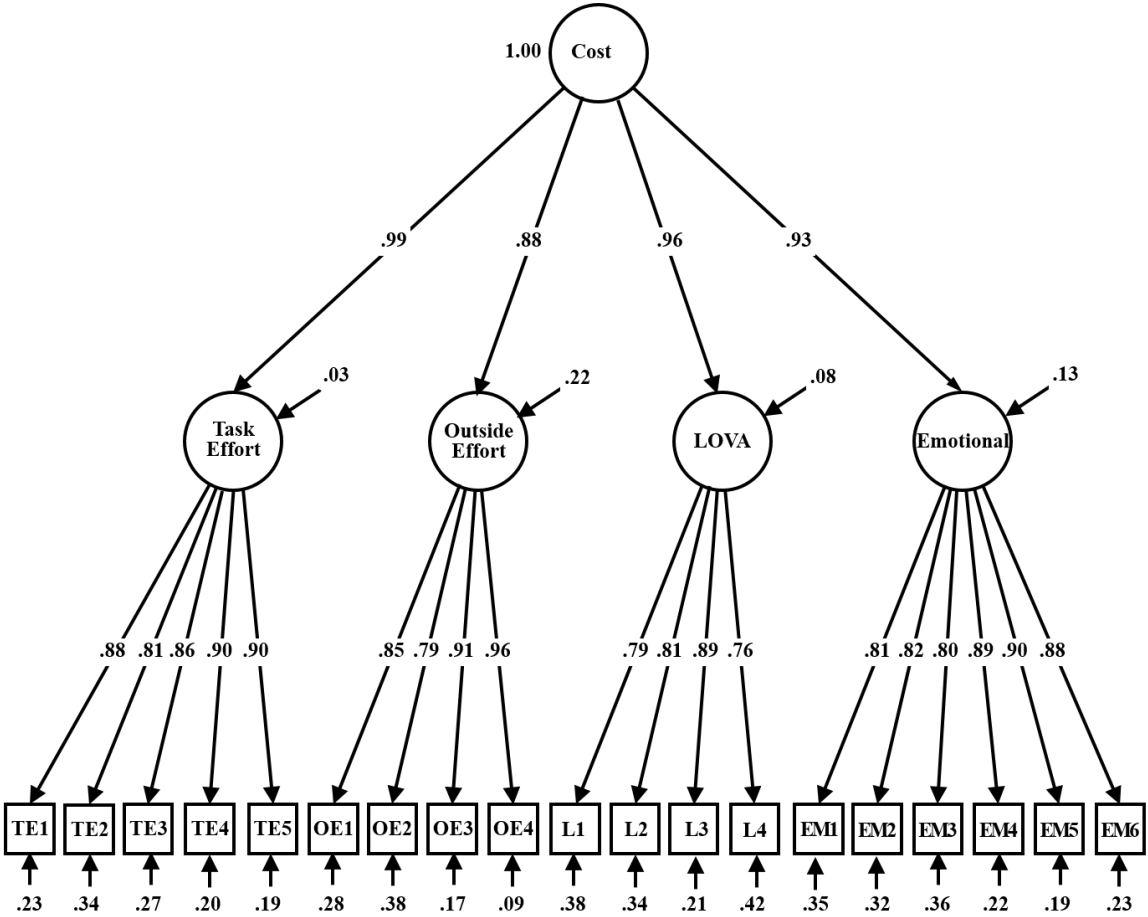


Figure 4. Final, Recommended Higher Order Factor Model with Standardized Coefficients.

Reprinted from “Measuring Cost: The Forgotten Component of Expectancy-Value Theory,” by J. K. Flake, K. E. Barron, C. Hulleman, B. D. McCoach, and M. E. Welsh, *The Journal of Contemporary Educational Psychology*, 41, p. 240.

Study Abroad Motivation Model

Raczkoski, Baker, Edwards, and Gordon (2017) adapted the expectancy-value-cost model of achievement motivation (Flake et al., 2015; Hulleman, Barron, Kosovich, & Lazowski, 2016) to a student motivation to study abroad context and named it Study Abroad Motivation (SAM) Model (see Figure 5). Their research into perceived cost found strong associations between lower-order cost constructs and undergraduate students' motivations to enroll in short-term study abroad courses or learning experiences before graduating. Raczkoski et al. (2017) concluded that perceived cost influenced college students' motivations to participate in a study abroad learning experience prior to graduating. They proposed the following model depicting the lower-order cost constructs and their relationships to students' motivations (see Figure 5). The SAM model is similar to the EVC model. However, Flake et al. (2015) related their EVC model to students' overall motivations in a number of discrete categories: sciences, applied sciences, engineering/computer science, math/statistics, social sciences, arts/humanities, and all other major categories, but Raczkoski et al. (2018) model related to only study abroad participation.

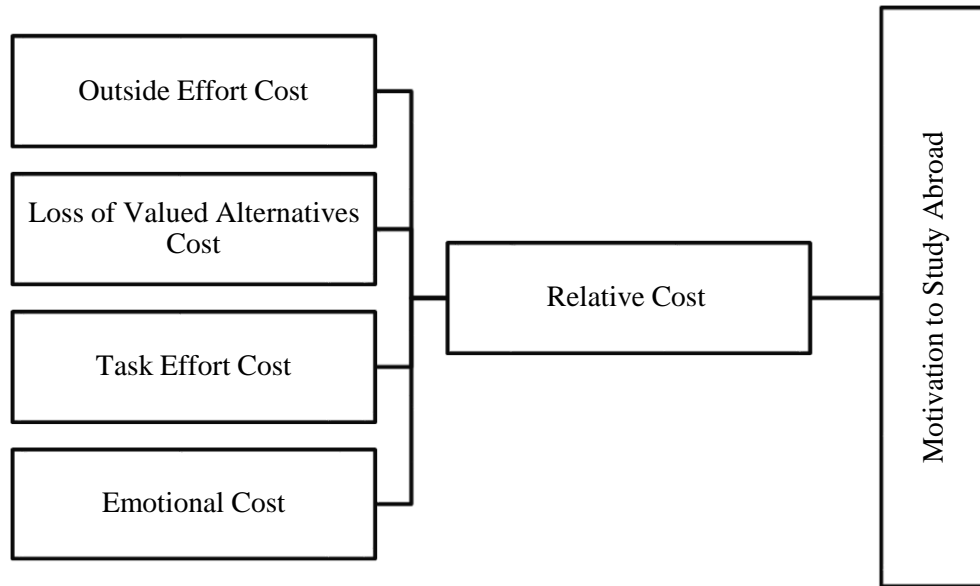


Figure 5. Raczkoski, Baker, Edwards, & Gordon (2017) Study Abroad Motivation (SAM) Model. Reprinted with permission from “Exploring Analytical Approaches for Understanding Students’ Motivations to Study Abroad,” by B. M. Raczkoski, M. A. Baker, M. C. Edwards, and S. R. Gordon, 2017, Proceedings of the 2017 Western Region AAAE Research Conference.

Conceptual Model: Perceived Costs of Studying Abroad Model

This research study proposes a new conceptual model named the Cost of Studying Abroad Model, which adapts the EVC model (Hulleman et al., 2016) and the SAM Model (Raczkoski et al., 2018) to examine student motivation to study abroad. This study emphasized the four cost-sub-dimensions of the EVC model. The proposed Perceived Costs of Studying Abroad Model (PCoSAM) sought to explain these four constructs in a more practical way (see Table 2).

Table 2

PCoSAM Description of Four Cost Types of the Student Motivation Process

Cost Type	Definition
Study abroad outside effort	The estimated amount of time, energy, and resources a student will devote to activities other than a short-term study abroad course or experience.
Study abroad loss of valued alternatives	That which students expect to lose because of participating in a short-term study abroad course or experience.
Study abroad task effort	The amount of physical or mental effort a student expects to exert during a short-term study abroad course or experience.
Study abroad emotional cost	The emotional or psychological state of a student resulting from the idea of participating in a short-term study abroad course or experience.

Note. Definitions were adapted from those reported by Flake et al. (2015).

The direct predictors of the dependent variable in the model included: study abroad outside effort cost of studying abroad; study abroad loss of valued alternatives cost; study abroad task effort cost; study abroad emotional cost; and how appraisals of experience influence future choice and performance. The indirect predictors of the dependent variables in the model included: gender, first-generation status, and previous international experience. The conceptual model (see Figure 6) illustrates the relationships between the study's variables.

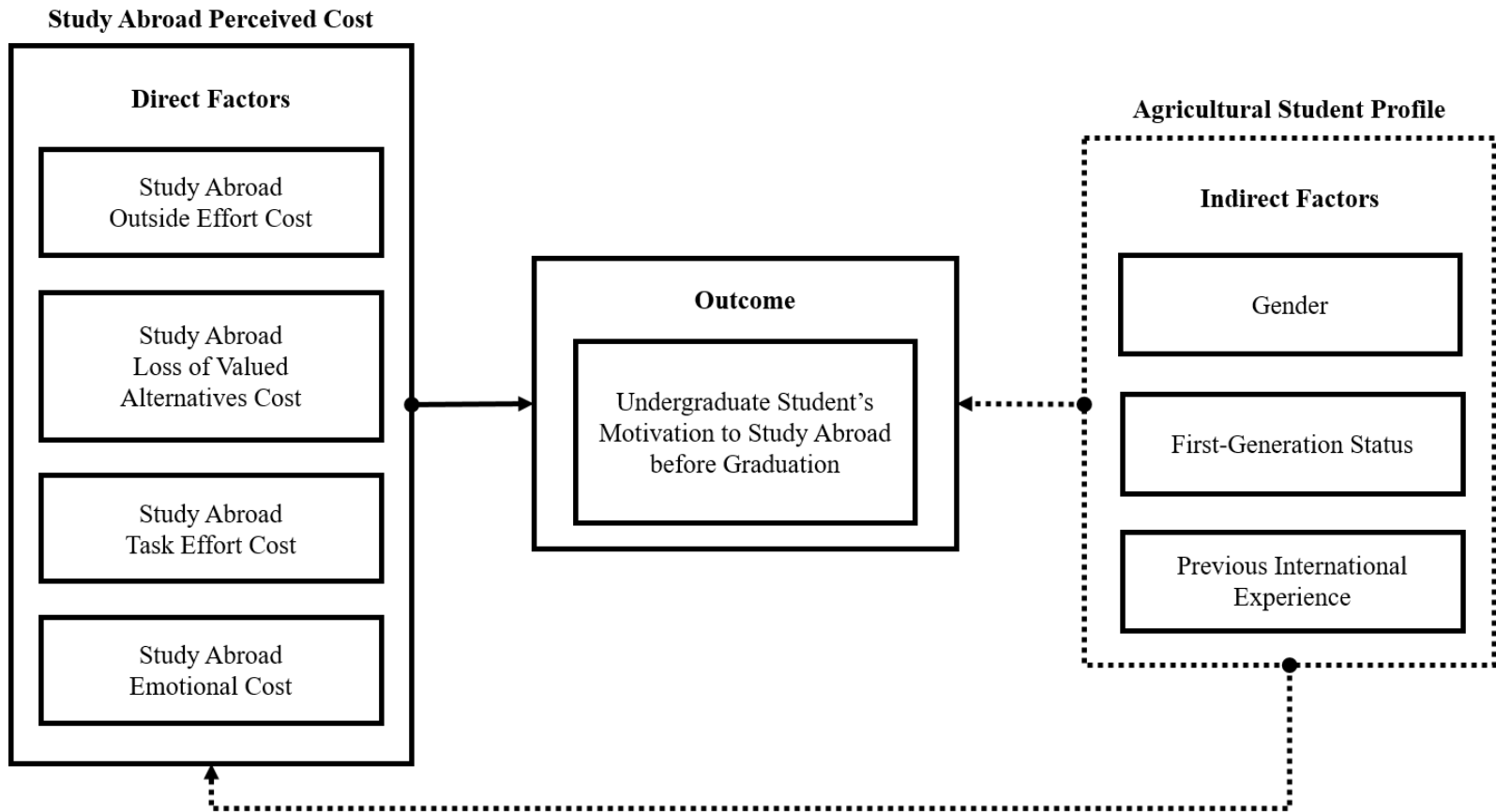


Figure 6. Perceived Costs of Studying Abroad Model (PCoSAM).

Figure 7 illustrates a simplified version of the hypothesized PCoSAM. The perceived cost factors have been collapsed into a unidimensional factor called *study abroad perceived cost factors*. A solid line linking it to undergraduate students' motivations to study abroad before graduation implies a direct influence. The indirect factors have been collapsed into a single factor called agricultural student archetype. A dotted line extends to both perceived cost factors and undergraduate students' motivations to study abroad before graduation to demonstrate the proposed indirect relationship between the variables.

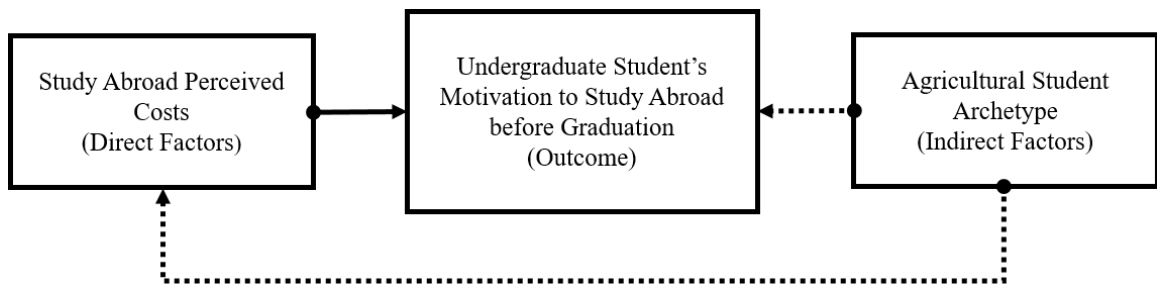


Figure 7. Simplified Perceived Costs of Studying Abroad Model (SPCoSAM).

Agricultural Student Profile

Factors such as gender, first-generation status, and previous international experience are external to the expectancy-value model, and perceived to indirectly influence achievement-related choices and performance. Together, they form an *agricultural student archetype* that organizes students based on direct and indirect factors that predict motivations for study abroad participation. These personal and professional characteristics do not relate directly to achievement-related choices and performance, but rather are mediated expectancies for success and subjective task values. That is, they influence expectancy and task value, which in turn influence choice and performance. Thus, personal and professional characteristics are important possible precursors of expectation for success and subjective task value. In this study, the

conception was extended to include the influence of perceived cost as its own source of student motivation (Barron & Hulleman, 2015).

Program experience type and mobility modes. At least five distinct experience types of study abroad exist: short-term, faculty-led, study abroad courses or experiences; semester and academic year-long programs (reciprocal exchange); affiliated and approved programs (transfer study); national student exchange; and international internships and service-learning abroad (Ogden, 2015). Much of the existing literature has focused on study abroad learning experiences; however, little to no research has been done involving these other experience types (Ogden, 2015). Yet, a growing body of research is concerned with these other experience types. Faculty-led programs are by far the most popular learning option students choose (IIE, 2017). Although not part of this study, descriptive statistics for students' preferred experience type and mobility mode and their motivation to participate in at least one type of education abroad program will be presented in Chapter III to depict an agricultural student archetype.

Gender. Gender and its effect on students' study abroad participation is in much need of study (Ogden, 2015). Participation in study abroad remains an experience chosen mostly by white, females who are majoring in humanities, social sciences, or business. A number of scholars have reported gender as a statistically significant factor in study abroad motivation (Goldstein & Kim, 2006; Hembroff & Russ, 1993; Loberg, 2012; Posey, 2003; Stroud, 2010) because females were found to be more likely to study abroad than males. Moreover, the IIE (2017) indicated a similar national trend with roughly two-thirds of U.S. study abroad participants identifying as female. These students, typically, study abroad in Europe in programs lasting fewer than eight weeks (IIE, 2014).

First generation status. It is important for U.S. institutions of higher learning to understand how disproportionate participation trends are within their institutions and education

abroad, including similar institutions offering study abroad programs (Ogden, 2015). Failure to acknowledge underrepresented groups may result in missed opportunities within particular segments of the student population, causing them to miss the benefits of participation. First-generation students belong to the traditionally underrepresented group of potential education abroad participants (Relya et al., 2008) and warrant investigation. As such, first-generation status could be used as a proxy for family income.

Previous international experience. Research shows that students with prior international experience exhibit greater independence and international awareness compared to students without such experience (Gerner et al., 1992; Martin, 1987; McKeown, 2009). However, Ogden (2015) noted the relationship between previous international experience and study abroad participation remained unclear due to inconsistent findings (Carlson et al., 1990; Hembroff & Russ, 1993). Hembroff and Russ (1993) examined how students' attitudes changed by type of international experience. They found statistically significant differences between students with previous international experience, i.e., those who traveled outside of the U.S., and those without such experiences. Students with previous international experiences reported greater interest in international relations and global competence. Moreover, female students who had attended international programs on campus reported statistically significantly higher scores than males. They concluded that the attitudinal differences were caused by international experience or the other way around.

In addition, Bunch et al. (2013) found statistically significant differences between two geographically distinct universities in the reported types of international experiences while in college. The researchers reported that geographically isolated students' participated in statistically significantly fewer types of international experiences while in college, which included: attending an international festival, travel individually or with family/friends to another country, taking a class focused on international issues, going to an international restaurant, international guest

speaker in class, meeting with international exchange students, residing with an international student. The relationship between students with previous international experience and their motivations to study abroad will be examined in this study.

Study abroad perceived costs factors. Previous research into study abroad learning experiences identified moderate to substantial effects on motivation. Raczkoski et al. (2018) conducted a pilot study to investigate the relationships between lower-order cost factors and students' overall motivation to participate in short-term study abroad courses or experiences before graduating. Their research provided initial validity and reliability evidence of the measurement tool. An examination of correlations revealed that students' motivation to study abroad was correlated moderately and substantially with each of the predictors: $r = .38$ with emotional cost, $r = .46$ with task effort cost, $r = .51$ with loss of valued alternatives cost, and $r = .60$ with outside effort cost. These relatively strong correlations suggested that a multiple regression equation using the four predictors will result in high prediction (Shultz et al., 2014) of students' motivations to study abroad. Thus, the relationships among perceived cost factors and students' motivations to study abroad will be examined in this study.

Research Questions

A review of literature resulted in the development of seven research questions. These seven research questions guided a description of the relationships between personal and professional characteristics of CASNR students at OSU enrolled in the Freshman Orientation course (AG 1011) during the Fall semester of 2017 and their conceptualizations about relative cost:

1. Which items best represent the underlying factors of perceived costs regarding freshmen agricultural students' motivations to enroll in a short-term study abroad course or experience?

2. What were the associations between motivation to enroll in a short-term study abroad course or experience and gender, previous international experience, and first-generation status?
3. Was there an interaction between gender, previous international experience, and first-generation status among students on motivation to enroll in a short-term study abroad course or experience?
4. Was there an association between gender, previous international experience, first-generation status, and perceived costs?
5. What were the associations between perceived costs and motivation to enroll in a short-term study abroad course or experience?
6. How did perceived costs differ when compared by gender, previous international experience, and first-generation status?
7. Could motivation to enroll in a short-term study abroad course or experience be predicted based on gender, previous international experience, first-generation status, and perceived costs?

Summary

This chapter provided an overview of the literature on the benefits and barriers, enrollment patterns, important predictors of participation, and factors that positively or negatively influence student choices for study abroad participation. Although barriers for study abroad participation have been studied from many theoretical perspectives, research on distinct sources of perceived costs developed more recently (Flake et al., 2015). The EVC model (Barron & Hulleman, 2015) emphasizes the importance of understanding drivers of behavior that are central to students' academic experiences. Kuh (2008) identified study abroad as one of the best high

impact teaching and learning practices for engaging students. Study abroad participation has been shown to influence positively the workplace skills employers value (IIE, 2017). Although agricultural students report interest in study abroad opportunities, their participation rates remain low (IIE, 2015). If study abroad is to be considered a transformational experience, as Kuh (2008) suggested, perceived barriers precluding participation must be evaluated further.

CHAPTER III

METHODOLOGY

The first two chapters discussed the major gaps in research related to students' motivations to study abroad before graduation. The EVT (Eccles et al., 1983) and EVC (Barron & Hulleman, 2015) models were introduced and discussed within the context of their influence on achievement-related choices and performances. A conceptual model of study abroad costs was introduced. A need for understanding predictors of intention and motivation to study abroad was demonstrated. Given this need, the chapter describes the methods and procedures used to conduct the study, including a detailed account of the research design, study participants, instrumentation, and data analyses. A convenience sample was collected using survey research design methods. This approach was employed because previous research (Raczkoski et al., 2018) identified potential factors that might influence students' motivations to study abroad. The OSU Institutional Review Board (IRB protocol AG-17-44) approved data collection and research for this study.

Purpose of the Study

Numerous students fail to receive exposure to education abroad opportunities until they begin college (IIE, 2017). Assessing students' relative cost perceptions during a required, introductory course may be an effective way to ensure introduction to education abroad opportunities early in their academic experience, which, in turn, may inspire students to participate in such experiences in the future. Therefore, this study's purpose was to identify CASNR freshmen students' perceptions of relative cost factors influencing their motivations to participate in an education abroad program before graduation to create an agricultural student archetype.

Research Questions

Seven research questions guided a description of the relationships between personal and professional characteristics of CASNR students at OSU enrolled in the Freshman Orientation course (AG 1011) during the Fall semester of 2017 and their conceptions about relative cost:

1. Which items best represent the underlying factors of perceived costs regarding freshmen agricultural students' motivations to enroll in a short-term study abroad course or experience?
2. What were the associations between motivation to enroll in a short-term study abroad course or experience and gender, previous international experience, and first-generation status?
3. Was there an interaction between gender, previous international experience, and first-generation status among students on motivation to enroll in a short-term study abroad course or experience?

4. Was there an association between gender, previous international experience, first-generation status, and perceived costs?
5. What were the associations between perceived costs and motivation to enroll in a short-term study abroad course or experience?
6. How did perceived costs differ when compared by gender, previous international experience, and first-generation status?
7. Could motivation to enroll in a short-term study abroad course or experience be predicted based on gender, previous international experience, first-generation status, and perceived costs?

Research Design

This study used a non-experimental, descriptive, correlational survey research design. A research design is a set of methods and procedures used to collect and analyze measures of variables identified by problem research (Gay, Mills, & Airasian, 2012). Non-experimental research designs do not involve manipulation of any circumstances surrounding a study (Gay et al., 2012). In descriptive research, researchers describe characteristics of a population as a whole or within categorical schemes, e.g., males and females, using quantitative statistics. A correlational study describes how variables relate in the natural world without researcher manipulation (Gay et al., 2012). The data for this study were collected using a survey, hence this study also utilizes survey research.

Population

The population of interest was freshmen students who enroll in CASNR at OSU. Incoming freshmen within CASNR are required to complete the Freshman Orientation (AG 1011) course to satisfy their undergraduate degree program requirements. Students from all seven

sections ($N = 566$) of the AG 1011 course were chosen to acquire a representative sample of students who enroll in the course over time (Oliver & Hinkle, 1982). Four hundred and thirty-nine students completed IRB consent forms and participated in the study for a 77.5% response rate. After excluding incomplete questionnaires, the sample size was reduced to 381 (67.3%).

Participant Description

Descriptive statistics of the sample were obtained through the administered survey. Freshman (113 males; 268 females) were recruited from seven sections of the AG 1011 course offered by CASNR at OSU during the Fall 2017 semester. Students self-reported first generation status (87 first-generation college students; 294 non-first-generation college students) and previous international experience (118 with previous international experience; 263 without previous international experience). Table 3 illustrates gender, first generation status, and previous international experience for freshmen enrolled in the AG1011 course during the Fall 2017 semester.

Table 3

Selected Student Characteristics (N = 381)

Characteristic	Category	<i>f</i>	(%)
Gender	Male	113	30.0%
	Female	268	70.0%
	Other	0	0.0%
Status	First generation college student	87	23.0%
	Not a first generation college student	294	77.0%
Experience abroad	Previous experience abroad	118	31.0%
	No experience abroad	263	69.0%

Note. Respondents did not select the *Other* option.

Though not included as a research question, students' preferred program modes, preferred program durations, and preferred times of year to participate in regard to education abroad are reported in Tables 4 – 6. These statistics were included because they provide an overall characterization of this study's variables. Table 4 describes students' preferred program modes for participating in education abroad experiences. These frequency counts are useful for highlighting the type of program mode in which students are most interested. Seventy-two percent ($f = 269$) of students identified short-term, faculty-led programs as their preferred program mode for participating in education abroad.

Table 4

Students' Preferred Program Modes for Participating in Education Abroad Experiences (N = 381)

Program Mode	<i>f</i>	(%)
Short-term, faculty-led programs	269	72.3%
Semester and academic year programs (reciprocal exchange)	130	34.9%
International internships and service-learning programs	109	29.3%
Affiliated and approved programs (transfer study)	47	12.6%
National student exchange	45	12.1%

Note. Respondents could select more than one option.

Table 5 displays students' preferred program durations for education abroad. These frequency counts are useful for understanding how long students want their education abroad experience to last. Sixty-five percent ($f = 241$) students identified programs lasting two to three weeks were most preferable.

Table 5

Students' Preferred Program Durations for Education Abroad (N = 381)

Program Duration	<i>f</i>	%
Two to three weeks	241	64.8%
Four to six weeks	147	39.5%
One week or less	135	36.3%
One semester	88	23.7%
Seven to twelve weeks	71	19.1%
Two semesters or more	32	8.6%

Note. Respondents could select more than one option.

Table 6 identifies students' preferred times of year to participate in an education abroad experience. Summer Session I was the most popular option (64.8%; $f = 241$) for students who completed this study's survey instrument.

Table 6

Students' Preferred Times of Year to Participate in Education Abroad (N = 381)

Program Mode	<i>f</i>	%
Summer session I	241	64.8%
Summer session II	153	41.1%
Spring break	146	39.2%
Spring semester	118	31.7%
Fall semester	87	23.4%
December/January intersession	73	19.6%
August intersession	62	16.7%

Procedure

The procedure began with designing the study and submission of the OSU IRB application. The Board approved the research protocol (IRB protocol AG-17-44), and the associated documents are included as Appendices A through C. The consent of CASNR's international programs coordinator and interim assistant dean of academic programs followed the approved protocol. Their permission was necessary to gain access and approval to administer the questionnaire to AG 1011 students. Students who did not want to participate in the research study were given an opportunity to earn extra credit points by completing an alternative assignment. None of the students chose to complete the alternative assignment option. An informed consent sheet accompanied each questionnaire. The form explained the benefits and risks of participating in the research study. Students understood their participation was voluntary and anonymous. Students reported their name and email address when submitting their questionnaire and received 10 extra credit points in AG 1011 for their participation. Data collection occurred at the beginning of September and lasted approximately one week. The AG 1011 course is hosted on OSU's main campus in Stillwater. The entire course was chosen to assess a representative sample of a typical, entering freshman class in CASNR.

Sampling Procedure

To ensure adequate coverage of this *time and place* sample (Oliver & Hinkle, 1982), all students who enrolled in AG1011 during the Fall 2017 semester were invited to participate. Data were compared by college, classification, and gender over the last ten years (OSU Institutional Research and Information Management, 2018). Through this comparison, no differences were detected. Therefore, students who were enrolled in the course were a representative sample of the population of all freshmen students who enroll as in CASNR over time. According to Oliver and Hinkle (1982), “[s]uch an assumption permits the use of inferential statistics and, if made, must

be defended by the researcher as being reasonable” (p. 200). For these reasons, the researcher determined that a *time and place* sample methodology (Oliver & Hinkle, 1982) was appropriate.

Instrumentation and Data Collection

The *Perceived Costs of Studying Abroad Instrument* [PCoSAI] (see Appendix A) was used in this study (Flake et al., 2015; Raczkoski et al., 2018). The questionnaire contained 29 items divided into three sections: Section One assessed students’ intent and motivation regarding short-term study abroad courses or experiences; Section Two assessed students’ conceptions about perceived cost, i.e., outside effort, task effort, loss of valued alternatives, and emotional cost, regarding study abroad participation; and Section Three requested information about students’ personal characteristics. Because motivation implies some future psychological state or idealized self-image or projection, item stems for the cost subscales were written in future tense so that students could account for some future state of perceived cost as opposed to a real-time appraisal. Motivation is the antecedent or expectation of committing to a future task or behavior, therefore, forecasted perceived costs factors were compared to the future state of being motivated. Both future tense and motivation implied an affective state to come.

Study Abroad Motivation

Three items measured agricultural students’ motivation and intent to study abroad. Participants rated these statements on a 5-point, Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The average of the three items formed a composite mean score. This continuous variable represented students’ motivation to study abroad. Cronbach’s alpha reliability estimate revealed a value of .94. The following limits were used to categorize students’ mean motivation scores: participants who responded 1 or 2 were categorized as the *unmotivated* group; participants who responded 3 were categorized as the *no preference* group; and participants who answered 4 or 5 were categorized as the *motivated* group.

Perceived Costs

Raczkoski et al. (2018) PCoSAI measured students' perceived costs factors. The scale adapted items from Flake et al.'s (2015) EVC measure to the context of short-term study abroad course or experience participation. The 20-item scale was rated on a 5-point, Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The average of the items that clustered together formed composite mean scores for each of the factors. The scale has not been used widely in previous research; however, it follows closely Flake et al. (2015) definition of perceived cost, including its theorized four sub-dimensions. Reliability analysis using Cronbach's alpha correlation verified the subscales in the modified version by Raczkoski et al., (2018) to be reliable ($\alpha > .80$; see Table 7).

Emotional cost. The 5-item Emotional Cost measure assessed the psychological or emotional facet of short-term study abroad learning experience participation. Higher scores indicated students' perceptions of more emotional cost. The internal consistency of this measure was .94 on the original Flake et al. (2015) scale and .85 on the modified scale by Raczkoski et al. [2018] (see Table 7). Previous research has demonstrated the internal consistency and factor structure of this measure to be acceptable (Flake et al., 2015; Raczkoski et al., 2018).

Outside effort cost. The 5-item outside effort cost sub-scale assessed the students' conceptions about the time and effort devoted to tasks other than in the participation in a short-term study abroad course or experience. Reliability analysis for this sub-scale reported a Cronbach's alpha score of .93 on the original Flake et al. (2015) scale and .89 on the modified scale by Raczkoski et al. [2018] (see Table 7). The higher the score on this 5-item sub-scale, the more apprehension students had about future time and effort devoted to tasks other than studying abroad. Previous research has demonstrated the internal consistency and factor structure of this sub-scale (Flake et al., 2015; Raczkoski et al., 2018).

Loss of valued alternatives cost. The 5-item Loss of Valued Alternatives (opportunity cost) sub-scale was a measure of what is lost, given up, or sacrificed because of short-term study abroad course or experience participation. Reliability analysis for this sub-scale reported a Cronbach’s alpha score of .89 on the original Flake et al. (2015) scale and .86 on the modified scale by Raczkoski et al. [2018] (see Table 7). Higher scores indicated greater perceived loss of valued alternatives cost. Previous research has demonstrated the internal consistency and factor structure of this measure to be acceptable (Flake et al., 2015; Raczkoski et al., 2018).

Task effort cost. The 5-item Task Effort Cost sub-scale assessed students’ perceptions about the amount mental or physical effort they expected to exert as a result of participation. Higher scores indicated the perceived need for more effort toward participation. The internal consistency of this measure was .95 on the original Flake et al. (2015) scale and .86 on the modified scale by Raczkoski et al. [2018] (See Table 7). Previous research has demonstrated the internal consistency and factor structure of this measure (Flake et al., 2015; Raczkoski et al., 2018).

Table 7

Cronbach’s Reliability Estimates for the Cost Sub-Scales used in this Study

Cost Scale	Cronbach’s alpha (α)		
	Flake et al. (2015)	Raczkoski et al. (2018)*	Study (2017)
Emotional cost	.94	.85	.91
Outside effort cost	.93	.89	.93
Loss of valued alternatives cost	.89	.86	.93
Task effort cost	.95	.86	.91

* Data collected in Fall 2016 in a pilot study. This scale was adapted from Flake et al. (2015) to measure perceived costs of short-term study abroad course participation.

Selected Student Characteristics

The independent variables used to answer this study's research questions included: gender, previous international experience, program experience type, and first-generation status. Previous research was the guide for choosing the variables for this study, as explained in Chapter two.

Program experience type or mobility mode. Three items assessed students' preferences for program experience types and mobility modes. The options included short-term, faculty-led study abroad trips, semester long programs, international service learning projects, and transfer study programs for one year, to name a few. Students were allowed to select all that applied.

First-generation status. One item measured students' first-generation status. Participants were asked whether they were the first individual in their immediate family to attend college (*yes* = 1; *no* = 2).

Gender. One item measured students' gender. Students were asked to self-identify whether they were male, female, or other, with an option to include a different identity. Students' responses were recorded as *male* = 1 and *female* = 2. None of the students' responses included the different identity.

Previous international experience. One item assessed whether students had any previous international experience. Students had the option to select *experienced*, which was coded as 1, or *inexperienced*, which was coded as 2. Previous international experience was defined as having physically left the United States, including its territories.

Instrument Pilot Study

An expert panel reviewed the PCoSAI for content and face validity during the Fall 2016 semester. The panel included faculty in CASNR at OSU. Faculty panel members were considered

experts in research methods, psychometrics, and international agricultural education. In the pilot study, items were presented online using Qualtrics Survey Software in random order, with a 5-point Likert-type rating scale: *completely disagree* = 1, *either agree nor disagree* = 3, and *completely agree* = 5.

The convenience sample included 219 CASNR students, 70.3% female (0.9% did not indicate gender) with an average age of 21.5 years ($SD = 5.4$, 6.4% did not indicate age). The ethnic breakdown of participants was as follows: White (73.5%), Native American/Alaskan Native (12.8%), International (9.1%), Black (5.5%), Hispanic (5.0%), and Asian American (2.3%). It is important to note that participation was voluntary and not tied to course credit. Exploratory factor analysis using Promax rotation extracted four factors, explaining 74% of the variance (Raczkoski et al., 2018).

Data Analysis

Data were analyzed using the Statistical Program for Social Sciences (SPSS) Version 21, by which descriptive statistics, correlations, two-sample inferential test, factorial ANOVA, factorial MANOVA, standard multiple regression, and exploratory factor analysis procedures were implemented. Modes of central tendency and variability were assessed, including appropriate assumptions varying by statistical technique. To answer research question 1, factor analysis was used. Correlation coefficients were used to answer research questions 2, 4, and 5. Factorial analysis of variance was used to answer research question 3. Multivariate analysis of variance was used to answer question 6. Multiple regression was used to answer research question 7 (see Table 8).

Table 8

Research Questions, Variables, and Corresponding Analyses

Research Questions	IV	DV	Analysis
1. Which items best represent the underlying factors of perceived costs regarding freshmen agricultural students' motivations to enroll in a short-term study abroad course or experience?	N/A	N/A	Principal axis factoring; Promax rotation; descriptive statistics; reliability estimates; and correlations
2. What were the associations between motivation to enroll in a short-term study abroad course or experience and gender, previous international experience, and first-generation status?	First generation status – nominal; dichotomous Gender – nominal; dichotomous Previous international experience – nominal; dichotomous	Motivation composite score – continuous	Pearson's product- moment correlation coefficient; Kendall's tau-b correlation coefficients (criterion variables) if violations occur
3. Was there an interaction between gender, previous international experience, and first-generation status among students on motivation to enroll in a short-term	First-generation status – nominal; dichotomous Gender – nominal; dichotomous	Motivation composite score – continuous	Factorial ANOVA

Research Questions	IV	DV	Analysis
study abroad course or experience?	Previous international experience – nominal; dichotomous		
4. Was there an association between gender, previous international experience, first-generation status, and perceived costs?	<p>Outside effort cost composite score – continuous</p> <p>Task effort cost composite score – continuous</p> <p>Loss of valued alternatives cost composite score – continuous</p> <p>Emotional cost composite score – continuous</p>	<p>First-generation status – nominal; dichotomous</p> <p>Gender – nominal; dichotomous</p> <p>Previous international experience – nominal; dichotomous</p>	<p>Pearson’s product-moment correlation coefficient; Kendall’s tau-b correlation coefficients (criterion variables) if violations occur</p>
5. What were the associations between perceived costs and motivation to enroll in a short-term study abroad course or experience?	<p>Outside effort cost composite score – continuous</p> <p>Task effort cost composite score – continuous</p> <p>Loss of valued alternatives</p>	<p>Motivation composite score – continuous</p>	<p>Pearson’s product-moment correlation coefficient; Kendall’s tau-b correlation coefficients (criterion variables) if violations occur</p>

Research Questions	IV	DV	Analysis
	cost composite score – continuous		
	Emotional cost composite score – continuous		
6. How did perceived costs differ when compared by gender, previous international experience, and first-generation status?	First-generation status – nominal; dichotomous	Outside effort cost composite score – continuous	Factorial MANOVA
	Gender – nominal; dichotomous	Task effort cost composite score – continuous	
	Previous international experience – nominal; dichotomous	Loss of valued alternatives cost composite score – continuous	
		Emotional cost composite score – continuous	
7. Could motivation to enroll in a short-term study abroad course or experience be predicted based on gender, previous international experience, first-generation status, and perceived costs?	Outside effort – continuous	Motivation composite score – continuous	Multiple linear regression
	Task effort – continuous		
	LOVA –		

Research Questions	IV	DV	Analysis
	continuous		
	Emotional – continuous		
	First-generation status – nominal; dichotomous		
	Gender – nominal; dichotomous		
	Previous international experience – nominal; dichotomous		

Note. IV = independent variable; DV = dependent variable.

Factor Analysis

A principal axis factoring method of extraction and Promax rotation were used to identify the underlying factor structure of the adapted PCoSAI, specifically the 20 items intended to measure perceived costs of outside effort, task effort, loss of valued alternatives, and emotional costs. To gain a clearer understanding of the underlying factor structure, a Promax rotation was used because in the social sciences, a correlation among factors is generally expected (Costello & Osborne, 2005). Results from the hypothesized factor structures were examined using Kaiser's criteria and a Scree Plot (Costello & Osborne, 2005).

The factor loadings presented in the pattern matrix were used to determine which items to retain or remove from subsequent analyses. Factors with fewer than three factor loadings ($\leq .50$) were considered to be weak or unstable (Costello & Osborne, 2005). The sample size used in this study exceeded the recommend item ratio of 10:1 for an instrument with 20 items. Internal reliability was established using post hoc Cronbach's alpha coefficients and Pearson's correlations to estimate relationships between the variables, based on conventions proposed by Davis (1971). Items were examined closely both conceptually and theoretically to determine their suitability and interpretability for inclusion within the underlying factor structure (Beavers et al., 2013; Fabrigar, Wegener, MacCallum, & Strahan, 1999).

Correlations

Various types of correlation were used in this study, depending on the types of variables being correlated. The point-biserial correlation coefficient, r_{pb} , was used to answer research question three; this correlation is a measure of the linear relationship between one continuous variable and one nominal, dichotomous variable (Field, 2013). Its values can range from -1 to +1. A value of 0 indicates no linear relationships between the two variables. A value closer to -1 or +1 indicated a strong negative or positive linear relationship, respectively. In this study, a point-

biserial correlation was used to determine the strength and direction of the linear relationship between gender (*female* = 1; *male* = 2), first generation status (*first-generation* = 1; *non-first generation* = 2), and previous international experience (*experienced* = 1; *inexperienced* = 2) and students' motivation to participate in study abroad learning experiences, including their perceptions of outside effort cost, loss of valued alternatives cost, task effort cost, and emotional cost – each were by including measured by composite mean agreeableness.

Assumptions checking for point-biserial correlation. When deciding whether to use the point-biserial correlation coefficient to analyze data, it is important to ensure that the data can actually be by analyzed using the statistical technique. It is only appropriate to use point-biserial correlation if data meet six assumptions. These include:

1. One continuous variable;
2. One dichotomous variable;
3. Two paired variables;
4. No significant outliers;
5. Homogeneity of variances; and
6. Normal distribution for each group of the continuous variable.

Pearson's product-moment correlation coefficient is a measure for strength and direction of the linear relationship between two continuous variables. The test generates the Pearson correlation coefficient, r . Its value can range from -1 to +1. A value of 0 indicates no relationship between two continuous variables. In this study, the Pearson's correlation was used to determine the strength and direction of the linear relationships between outside effort cost, loss of valued alternatives cost, task effort cost, and emotional cost and motivation to participate in education abroad – each measured by a composite mean of agreeableness. This type of analysis is useful for

informing subsequent causal-comparative and experimental studies (Gay et al., 2012).

Researchers interpreted findings using conventions proposed by Davis (1971).

Assumptions checking for Pearson's correlation. When deciding whether to use Pearson's correlation coefficient to analyze data, it is important to ensure that the data can actually be analyzed using the statistical technique. It is only appropriate to use Pearson's correlation if data meet five assumptions. These include:

1. Two continuous variables;
2. Paired continuous variables;
3. Linear relationship between the two variables;
4. No significant outliers; and
5. Satisfy the assumption of bivariate normality (Field, 2013).

When violations of the assumptions were presented, the Kendall's tau-b correlation coefficient was used as a modification (Marascuilo & McSweeney, 1977).

Factorial ANOVA

The three-way ANOVA was used to determine the interaction effects between three independent variables on one continuous dependent variable. It is worth noting that the three-way ANOVA is also referred to as a factorial ANOVA or more specifically as a *three-way between-subjects ANOVA*. Three independent variables were investigated in a 2 x 2 x 2 factorial design. Three groups of dichotomous independent variables, i.e., gender, first generation status, and previous international experience were considered. Figure 8 illustrates all unique combinations of the three independent variables by group.

Means on the Motivation to Study Abroad

		Gender			
		Male Participants		Female Participants	
		First Generation Status			
		Yes	No	Yes	No
Previous Experience	Yes	Overall Motivation	Overall Motivation	Overall Motivation	Overall Motivation
	No	Overall Motivation	Overall Motivation	Overall Motivation	Overall Motivation

Figure 8. Non-random assignment of participants into a 2 x 2 x 2 factorial ANOVA design.

Assumptions checking for factorial ANOVA. When choosing to analyze data using three-way between-subjects ANOVA, a critical consideration is determining if the data meet the criteria for this type of statistical test. A three-way ANOVA has six assumptions that should be considered. These include:

1. One continuous dependent variable;
2. Three categorical independent variables each with two or more groups;
3. Independent observations;
4. No significant outliers;
5. Dependent variable should be normally distributed within subgroups; and
6. Variance of the dependent variable should be equal within subgroups (Field, 2013).

Non-parametric alternatives tests were used when the data violated these assumptions. The four assumptions of the Mann-Whitney U test, i.e., one continuous or ordinal dependent variable,

independent variable is categorical with at least two groups, independent observations, and the distributions for the levels of the independent variable have the same shape (Field, 2013).

Factorial MANOVA

The three-way between-subjects multivariate analysis of variance (MANOVA) design is an extension of three-way ANOVA includes two or more dependent variables and three independent variables. The test differs from one-way ANOVA because it tests for the linear composite vector of the means between the groups of independent variables. It is useful for determining the effects of two or more independent variables on two or more dependent variables (Stevens, 2009). This design allows researchers to examine the joint effect of independent variables. Interaction effect means the effect of one independent variable on dependent variables is not the same across all levels of other independent variables. Four major benefits of a multivariate design exist (Stevens, 2009; Tabachnick & Fidell, 1989):

1. Reduction in the overall Type I error rate;
2. Multivariate designs incorporate correlations into the test statistic;
3. Multivariate designs detect joint effects; and
4. The canceling out effect that occurs in univariate analysis.

Three independent variables were investigated in a 2 x 2 x 2 factorial design (see Figure 9). A factorial MANOVA was used to determine if there was an interaction effect between three independent variables on four dependent variables. Figure 9 illustrates the factorial design for each dependent variable for simplicity and ease of understanding. It was important to determine whether mean differences on outside effort cost, loss of valued alternatives cost, task effort cost, and emotional cost were moderated by students' gender, first-generation status, or previous international experience.

Means on the Perceived Costs

Gender

		Male Participants				Female Participants			
		First Generation Status				First Generation Status			
		Yes		No		Yes		No	
Previous Experience	Yes	OEC	LOVA	OEC	LOVA	OEC	LOVA	OEC	LOVA
	No	TEC	EC	TEC	EC	TEC	EC	TEC	EC
Previous Experience	Yes	OEC	LOVA	OEC	LOVA	OEC	LOVA	OEC	LOVA
	No	TEC	EC	TEC	EC	TEC	EC	TEC	EC

Figure 9. Non-random assignment of participants into a 2 x 2 x 2 factorial MANOVA design.

OEC = outside effort cost; LOVA = loss of valued alternatives cost; EC = emotional cost; TEC = task effort cost.

Assumptions checking for factorial MANOVA. When choosing to analyze data using a one-way MANOVA, a critical part to ensure the data were suitable for this type of statistical test. As such, the 10 assumptions of the three-way MANOVA were considered. These include:

1. Two or more continuous dependent variables;
2. Independent variables are categorical with at least two independent groups;
3. Independence of observations;
4. Linear relationship between each pair of dependent variables for all combinations of groups of independent variables;
5. No multicollinearity;
6. No univariate or multivariate outliers;
7. Multivariate normality;

8. Adequate sample size;
9. Homogeneity of variance-covariance matrices; and
10. Homogeneity of variances (Field, 2013).

Non-parametric alternatives tests were used when violations of these assumptions within the data occurred (Field, 2013).

Standard Multiple Regression

Multiple regression was used to predict a continuous variable based on two or more independent variables. Multiple regression allowed the researcher to determine the total variance explained and contribution of each predictor variable by using the proposed statistical model below. This technique helped determine predictors of students' motivations for short-term study abroad participation. As such, it was important to determine whether intention for study abroad participation could be predicted based on students' gender, first-generation status, previous international experience, and perceived costs factors. Therefore, a basic regression model without interaction terms was used for this study:

$$\text{Motivation}_i = (b_0 + b_1 \text{Outside Effort}_i + b_2 \text{Task Effort}_i + b_3 \text{Emotion}_i + b_4 \text{LOVA}_i + b_5 \text{Gender}_i + b_6 \text{Experience}_i + b_7 \text{Status}_i) + \varepsilon_i$$

The continuous dependent variable was *motivation*. There were three dichotomous independent variables: gender, which had two groups (*male* = 1; *female* = 2); first-generation status, which had two groups (*first-generation* = 1; *non-first generation* = 2); previous international experience, which has two groups (*experienced* = 1; *inexperienced* = 2); and four continuous independent variables – outside effort cost, measured by a composite mean of agreeableness; loss of valued alternatives, measured by a composite mean of agreeableness; emotional cost, measured by a composite mean of agreeableness; and task effort cost, measured

by a composite mean of agreeableness. To test for moderation, the interaction terms between each of the study's variables were considered. The linear model was extended to include the additional interaction terms, and each was assigned a parameter (b).

Assumptions checking for standard multiple regression. Checking the assumptions helps researchers determine whether the data are suitable for multiple regression analysis. The benefits of assumption checking are fourfold:

1. Provide useful information on the accuracy of predictions;
2. Test how well the regression model fits data;
3. Determine the variation in dependent variable explained by independent variables; and
4. Test hypotheses on the regression equation (Field, 2013).

The Researcher considered the eight assumptions of multiple regression. Assumption violations required corrections and re-testing of assumptions. The eight assumptions included:

1. A continuous dependent variable;
2. Two or more independent variables, which can be either continuous or categorical;
3. Independence of observations, i.e., independence of residuals;
4. A linear relationship between the dependent variable and each of the independent variables and the dependent variable and the independent variables collectively;
5. Homoscedasticity of residuals, i.e., equal error variances;
6. No multicollinearity;
7. No significant outliers, high leverage points or highly influential points; and
8. Normally distributed residuals (Field, 2013).

Controlling Threats to Validity and Reliability

Survey error is a persistent threat faced by researchers. Dillman, Smyth, and Christian (2009) identified four types of survey error: sampling error, coverage error, measurement error, and non-response error. Each of these errors differentially affects validity and reliability of survey research results. Thus, the Tailored Design Method (TDM) can be used to minimize such error. The TDM approach has been successful in achieving high response rates (Dillman et al., 2009). For this reason, researcher emphasized the value of participation to students, and incentivized them by offering extra credit to toward their course grade. In this study, the goal was to estimate motivation for freshmen agricultural students to participate in a short-term study abroad course or experience before graduating. This group constituted the survey population. The sample frame consisted of all students enrolled in the Fall 2017 AG 1011 introductory course. The course instructor granted the researcher permission to contact students enrolled in the course, and a *time and place* sample was collected (Oliver & Hinkle, 1982).

Dillman (2000) identified sampling error as “the result of collecting data from only a subset, rather than all, of the members of the sample frame” (p. 196). To eliminate sampling error, the researchers chose to query the entire population of freshmen agricultural students who were enrolled in the AG 1011 course (Dillman et al., 2009). Implementation of the instrument for the student cohort resulted in a completed sample of 381, or about 67% of the original sample. Based on this number, conclusions about the amount of sampling error were made. According to Dillman (2000), “[f]or a completed sample of this size, one could have statistical confidence that the estimates based on sample results were within one to two percentage points of the entire survey population” (p. 197).

Coverage error results from a condition where each member of the target population does not have a non-zero chance of being selected for participation (Dillman et al., 2009). The AG

1011 course required students to attend each class period. CASNR undergraduate students' attendance minimized coverage error and enabled the completion of the instrument. To address coverage error, the course's lead instructor announced during the class period that the instrument would be available to complete following the presentation of international programs offered by CASNR. Each student enrolled in the course had equal opportunity to complete the instrument.

Measurement error occurs when researchers word items poorly and present questions in a way that produces inaccurate or uninterpretable data (Dillman et al., 2009). The avoidance of measurement error is crucial for good questionnaire design. To address this type of error, a panel of experts reviewed the instrument. Each item was developed, reviewed, and refined using Dillman et al. (2009) conventions for constructing questionnaires. Multiple items were used to assess each construct. This method is more reliable than using single items by providing more reliable measurement properties (Dillman et al., 2009).

Finally, the possibility existed for non-response error, e.g., the 33% of students who did not respond being different from the 67% who did. When response rates dip below 100%, the potential exists for non-response error (Lindner, Murphy, & Briers, 2001). If non-response error is present, caution must be exercised when generalizing the study's findings beyond the participants. The best approach for dealing with nonrespondents is to determine if they are different from the respondents (Gay et al., 2012). Lindner et al. (2001) conducted research that explored how non-response error had been handled historically. They concluded that failing to assess for nonresponse was an error regarding external validity. Lindner et al. (2001) offered three procedures and protocols for handling non-response error. One of which, and perhaps the most acceptable method, is to compare respondents' answers to those of the selected characteristics of nonrespondents.

Attenuating for potential differences is possible by randomly selecting a small group of non-respondents and administering the questionnaire to them (Lindner et al., 2001). If no statistically significant differences are revealed between respondents and nonrespondents, then it can be assumed the response group is representative of the population. The researcher addressed non-response error by comparing selected characteristics requested from the freshmen agricultural students to the population of freshmen agricultural students over time. Non-parametric tests were used on gender to determine if differences existed between the two groups. Differences in gender were non-significant, meaning that the gender of the study's participants did not differ from the population. Therefore, we concluded that the results presented in the study were generalizable to subsequent CASNR freshman enrolling in the AG 1011 course.

CHAPTER IV

FINDINGS

This dissertation study examined the influences of outside effort, loss of valued alternatives, task effort, and emotional costs on freshmen students' motivations to enroll in a short-term study abroad course or experience before graduating. A quantitative approach was employed. Using a survey instrument, data were collected from a sample of freshmen who were enrolled in the AG 1011 course offered by CASNR at OSU. This chapter presents the findings of the study. Associations between the students' selected characteristics and theoretical variables are presented to determine and describe relationships between such. Analysis of variance techniques are used to understand differences between selected characteristics among those gender, first-generation status, previous international experience, and perceived costs. Finally, multiple regression analysis was conducted to answer a research question about the predictive capacity of students' perceived costs associated with enrollment in short-term study abroad courses or experiences.

Purpose of the Study

Evaluating students' perceptions of relative cost in a required, introductory course may be an effective way to ensure they are introduced early in their higher education experience to education abroad opportunities, which in turn, may influence them to participate in the future. Therefore, this study's purpose was to identify CASNR freshmen students' perceptions of relative cost factors influencing their motivations to participate in education abroad before graduation.

Research Questions

Seven research questions guided a description of the relationships between personal and professional characteristics of CASNR students at OSU enrolled in the Freshman Orientation course (AG 1011) during the Fall semester of 2017 and their conceptions about relative cost:

1. Which items best represent the underlying factors of perceived costs regarding freshmen agricultural students' motivations to enroll in a short-term study abroad course or experience?
2. What were the associations between motivation to enroll in a short-term study abroad course or experience and gender, previous international experience, and first-generation status?
3. Was there an interaction between gender, previous international experience, and first-generation status among students on motivation to enroll in a short-term study abroad course or experience?
4. Was there an association between gender, previous international experience, first-generation status, and perceived costs?

5. What were the associations between perceived costs and motivation to enroll in a short-term study abroad course or experience?
6. How did perceived costs differ when compared by gender, previous international experience, and first-generation status?
7. Could motivation to enroll in a short-term study abroad course or experience be predicted based on gender, previous international experience, first-generation status, and perceived costs?

Findings for Research Question One – Which perceived costs motivate freshmen agricultural students to enroll in a short-term study abroad course or experience?

This investigation began with an exploratory factor analysis (EFA) for the instruments' items using principal axis factoring (PAF) to evaluate the underlying dimensionality of the scale within this population (Shultz et al., 2014). PAF was also used because the data violated the assumption of multivariate normality based on the Shapiro-Wilk test ($p < .05$). All items in the correlation matrix were moderately correlated ($.10 > r > .90$). The determinant for the correlation matrix was $1.494E - 10$, which indicated no multicollinearity, and EFA of the dataset was feasible. The Kaiser-Meyer-Olkin Test of Sampling Adequacy (KMO) was .973, indicating the sample was large enough for EFA. Bartlett's Test of Sphericity tested the null hypothesis that the correlation matrix was an identity matrix ($p < .000$). Therefore, it was concluded that EFA was useful for detecting the underlying factor structure of the 20 items in the adapted EVC scale.

Before extraction, SPSS identified 20 factors within the data set. Eigenvalues associated with each factor represented the percentage of variance explained by each factor. The first few factors explained relatively large amounts of variance. The four factors with eigenvalues greater

than 1 were extracted. Before rotation, Factor 1 accounted for considerably more variance than the remaining three factors. According to Field (2013), Kaiser's criterion is accurate when there are fewer than 30 variables, communalities are greater than .7, or when the sample size exceeds 250 and the average communality is greater than .6. All of the communalities exceeded .7. Together, these criteria suggested Kaiser's rule was appropriate for these data. The scree plot indicated one point of inflection at four factors. Therefore, four factors were extracted. The four extracted factors explained 81% of the variance prior to rotation of the factors: emotional cost (68.9%), outside effort cost (6.2%), loss of valued alternatives cost (3.4%), and task effort cost (2.6%). Factors were obliquely rotated using Promax rotation. Each factor had at least three items with loadings that were .50 or larger (Costello & Osbourne, 2005). Five items had cross-loadings, i.e., factor loadings $> .32$, on two factors: item TE4, item EM5, item LOVA1, item TE5, and item TE1. Cross-loaded items deemed problematic were removed one at a time. The EFA was re-run after each time an item was removed, and the emergent factor structure was re-examined without the presence of the problematic item. This process was repeated until an approximate simple structure was achieved (Sass & Schmitt, 2010) that met the extraction criteria outlined in Chapter III. Item loadings for the full four-factor model are illustrated in Table 9.

Table 9

Initial Factor Loadings for Exploratory Factor Analysis with Promax Rotation of Perceived Cost Sub-Scales (N = 381)

Item	Emotional Cost	Outside Effort Cost	Loss of Valued Alternatives	Task Effort Cost
EM6	.828			
EM1	.806			
EM3	.806			
EM2	.514			
TE4	.472			.385
OE5		.906		
OE4		.642		
OE3		.633		
OE2		.586		
OE1		.556		
EM5	.459	.535		
LOVA4			.710	
LOVA2			.686	
LOVA5			.662	
LOVA3			.565	
TE3				.737
TE2				.648
LOVA1		.337		.563
TE5	.513			.561
TE1		.321		.439

Note. Factor loadings < .32 were suppressed. LOVA = Loss of Valued Alternatives; OE = Outside Effort Cost; EM = Emotional Cost; TE = Task Effort Cost. Principal Axis Factoring with Promax Rotation explained 81% variance. Scale: 1 = *Strongly disagree*; 2 = *Somewhat disagree*; 3 = *Neither agree nor disagree*; 4 = *Somewhat agree*; 5 = *Strongly agree*.

Perceived Costs Predicted to be Most Influential on Student Motivation. The

statistical emergence of the factors revealed that freshmen students viewed 14 perceived costs as forming four factors that would influence their motivation to enroll in a credit-bearing, short-term study abroad course or experience before graduation. The items that clustered on the same factor suggested that Factor One represented study abroad emotional cost, Factor Two represented study

abroad outside effort cost, Factor Three represented study abroad loss of valued alternatives cost, and Factor Four represented study abroad task effort cost.

Factor One, *Study Abroad Emotional Cost*, was measured by three items related to negative appraisals of a psychological state resulting from exerting effort to study abroad: worrying too much, being too anxious, and feeling too stressed (see Table 10).

Factor Two, *Study Abroad Outside Effort Cost*, consisted of four items related to negative appraisals of the amount of time and effort exerted for tasks other than a study abroad course or experience: not having enough time to study abroad because of other activities, other demands on time, too many responsibilities, and other commitments (see Table 10).

Factor Three, *Study Abroad Loss of Valued Alternatives Cost*, defined by four items related to negative appraisals of what is lost or given up as a result of study abroad course or experience enrollment: giving up other valued activities, missing out on too many things, sacrificing too much, and spending less time on other valued activities (see Table 10).

Factor Four, *Study Abroad Task Effort Cost*, was measured by three items related to the amount of negative appraisals of the amount of effort exerted for a study abroad course or experience: demand too much energy, will be too long, and demand too much effort (see Table 10).

Table 10

*Final Factor Loadings for Exploratory Factor Analysis with Promax Rotation of Perceived Cost**Sub-Scales (N = 381)*

Item	Emotional Cost	Outside Effort Cost	LOVA	Task Effort Cost
EM1	.874			
EM3	.827			
EM6	.799			
OE5		.870		
OE2		.668		
OE4		.601		
OE3		.597		
LOVA2			.786	
LOVA5			.741	
LOVA4			.733	
LOVA3			.699	
TE2				.744
TE5				.736
TE3				.735

Note. Factor loadings < .32 were suppressed. LOVA = Loss of Valued Alternatives; OE = Outside Effort Cost; EM = Emotional Cost; TE = Task Effort Cost. Principal Axis Factoring w/Promax Rotation and 84% variance explained. Scale: 1 = *Strongly disagree*; 2 = *Somewhat disagree*; 3 = *Neither agree nor disagree*; 4 = *Somewhat agree*; 5 = *Strongly agree*.

Reliability coefficients were computed using Cronbach's alpha scores ($N = 381$). The four emergent factors had reliability coefficients greater than .70, which were considered acceptable (Nunnally, 1978). The reliability estimates for each cost factor were: EM = .91 (three items); OE = .90 (four items); LOVA = .93 (four items); and TE = .93 (three items). Items from each sub-scale, i.e., emotional cost, outside effort cost, loss of valued alternatives and task effort cost, were averaged together to create an observed mean score for each construct.

Table 11 shows the means and standard deviations among 14 perceived costs items that emerged from the EFA. Students consistently indicated higher agreement with items from outside effort and LOVA perceived cost subscales. Students expressed a moderate level of disagreement with most of the items. Items OE5 ($M = 3.00$; $SD = 1.09$) and TE5 ($M = 2.18$; $SD = 1.05$) were the highest and lowest appraisals of perceived costs reported by the participants, respectively.

Table 11

Descriptive Statistics for 14 Perceived Costs related to Students' Motivations to Enroll in a Short-Term Study Abroad Course or Experience before Graduation

Item	Perceived Cost	<i>M</i>	<i>SD</i>
EM1	I will worry too much about a short-term study abroad course or experience.	2.36	1.16
EM3	A short-term study abroad course or experience will be emotionally draining.	2.33	1.15
EM6	Considering a short-term study abroad course or experience makes me feel too anxious.	2.37	1.17
OE5	I will be so busy with other courses or experiences that I will not have the time for a short-term study abroad course or experience.	3.00	1.09
OE2	Because of all the other demands on my time, I will not be able to enroll in a short-term study abroad course or experience.	2.56	1.15
OE4	Because of other things I do, I will not have time to put into a short-term study abroad course or experience.	2.65	1.19
OE3	I will have so many responsibilities that I am unable to put forth the effort that is necessary for a short-term study abroad course or experience.	2.68	1.14
LOVA2	A short-term study abroad course or experience will require me to give up too many other activities I value.	2.55	1.20
LOVA5	A short-term study abroad course or experience will prevent me from spending time doing other things I like.	2.63	1.15
LOVA4	I will not spend as much time doing the other things that I would like because of a short-term study abroad course or experience.	2.54	1.16
LOVA3	Taking a short-term study abroad course will cause me to miss out on too many other things I care about.	2.60	1.16
TE2	I will have to put too much energy into a short-term study abroad course or experience.	2.29	1.10
TE5	A short-term study abroad course or experience will require too much effort.	2.18	1.05
TE3	A short-term study abroad course or experience will be too long.	2.26	1.15

Note. A higher score indicated more agreement to the item. Scale: 1 = *Strongly disagree*; 2 = *Somewhat disagree*; 3 = *Neither agree nor disagree*; 4 = *Somewhat agree*; 5 = *Strongly agree*. LOVA = Loss of Valued Alternatives; OE = Outside Effort Cost; EM = Emotional Cost; TE = Task Effort Cost

Statistically significant relationships ($p < .01$) were found between four perceived costs composite scores. For example, statistically significant positive, very strong correlation

coefficients were reported between emotional cost with outside effort cost ($r = .67$), LOVA ($r = .70$), and task effort cost measures ($r = .79$). Table 12 displays the correlation coefficients among the sub-dimensions of cost. The four factors had fairly large correlations, which suggested the constructs measured were interrelated (Field, 2013).

Table 12

Correlation Coefficients Among Perceived Cost Sub-Scales (N = 381)

Cost Sub-Scale	1	2	3	4
1. Emotional cost	-			
2. Outside effort cost	.67**	-		
3. LOVA ^a	.70**	.83**	-	
4. Task effort cost	.79**	.71**	.78**	-

Note. Magnitude: $.01 \geq r \geq .09$ = Negligible, $.10 \geq r \geq .29$ = Low, $.30 \geq r \geq .49$ = Moderate, $.50 \geq r \geq .69$ = Substantial, $r \geq .70$ = Very Strong (Davis, 1971). LOVA^a = Loss of Valued Alternatives
** $p > .01$.

Findings for Research Question Two – What were the associations between motivation to enroll in a short-term study abroad course or experience and gender, previous international experience, and first-generation status?

The second research question sought to determine the associations between students' continuous motivation score regarding enrollment in a short-term study abroad course or experience and three dichotomous variables: gender, previous international experience, and first-generation status. Assumptions checking procedures revealed there were no outliers, as assessed by boxplot; students' motivation scores were not normally distributed, as assessed by Shapiro-Wilk's test ($p < .05$); and homogeneity of variances existed, as assessed by Levene's test for equality of variances ($p = .207$). Therefore, because the data violated the assumption of normality with unequal group sizes, a nonparametric alternative test, i.e., Kendall's tau-b point-biserial correlation, was calculated (Marascuilo & McSweeney, 1977).

A series of Kendall’s tau-b correlation coefficients were calculated to determine the associations between gender, previous international experience, and first-generation status and students’ motivations toward enrolling in a short-term study abroad course or experience. Table 13 shows the correlation coefficients among these factors. Motivation was statistically significantly and positively associated with students’ genders, $\tau_b = .17, p = .00$. Motivation was statistically significantly and negatively associated with students’ previous international experiences, $\tau_b = -.16, p = .00$. However, motivation was not statistically significantly associated with first-generation status, $\tau_b = -.02, p = .64$ (see Table 13).

Table 13

Kendall’s Tau-b Correlation Coefficients between Selected Participant Student Characteristics and Motivation Scores (N = 381)

Characteristics	N	Motivation	p
Gender	381	.17	.00
Previous international experience	381	-.16	.00
First-generation status	381	-.02	.64

Note. A Kendall’s tau-b coefficient that is closer to zero indicates a weak association, and the closer Kendall’s tau-b coefficient is to -1 or $+1$, the stronger the association. Gender (*male* = 1; *female* = 2); previous international experience (1 = *yes*; *no* = 2); and first-generation status (*yes* = 1; *no* = 2). * $p < .05$; ** $p < .01$.

Findings for Research Question Three – Was there an interaction between gender, previous international experience, and first-generation status among students on motivation to enroll in a short-term study abroad course or experience?

Research question three sought to determine whether there was an interaction between three selected student characteristics and motivation scores regarding short-term study abroad course enrollment. A three-way ANOVA was conducted on a sample of 381 students to examine

the effects of gender, previous international experience, and first-generation status on students' motivations to enroll in a short-term study abroad course or experience. Four outliers were identified, as assessed as by inspection of the boxplot. The outliers presented in the data were retained because they were not perceived to substantially affect the results. This was confirmed by conducting the analyses both with and without the presence of the outliers. Motivation scores were not normally distributed ($p < .05$) except for two groups, i.e., first-generation males with and without previous international experience, $p = .195$ and $.069$, respectively, as assessed by Shapiro-Wilk's test of normality. Skewness and kurtosis values for these groups, however, did not exceed ± 3 , and the histogram of the data from each group had similar distributions. Homogeneity of variances was found, as assessed by Levene's test for equality of variances, $p = .126$. No statistically significant three-way interaction was revealed between gender, previous international experience, and first-generation status on motivation to enroll in short-term study abroad course or experience, $F(1, 373) = .008, p = .929, \eta^2 = .000$, (see Figure 10).

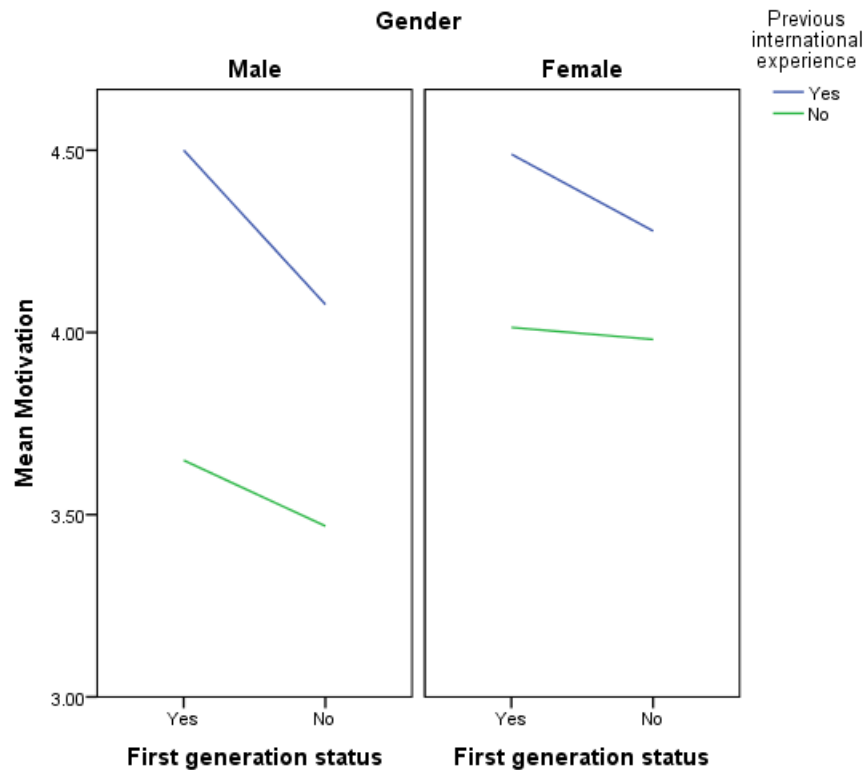


Figure 10. Multiple line graph for the three-way interaction on motivation scores.

Since the three-way interaction was not statistically significant, two-way interactions were evaluated next. No statistically significant two-way interactions were found between students' genders and first-generation status, $F(1, 373) = .245, p = .621, \eta^2 = .001$, students' genders and previous international experience, $F(1, 373) = .888, p = .621, \eta^2 = .002$, and students' first-generation status and previous international experience, $F(1, 373) = .333, p = .564, \eta^2 = .001$, on motivation to enroll in a short-term study abroad course or experience. Since two-way interactions were not statistically significant, the next step was to evaluate main effects. The main effect for previous international experience was statistically significant, $F(1, 373) = 9.401, p = .002, \eta^2 = .025$. However, the main effect of gender on motivation was not statistically significant, $F(1, 373) = 2.149, p = .143, \eta^2 = .006$, nor was the main effect of first-generation status on motivation statistically significant, $F(1, 373) = 1.352, p = .246, \eta^2 = .004$. The main effect for previous international experience on motivation, however, was statistically significant, $F(1, 373) = 9.401, p = .002, \eta^2 = .025$.

Main effect of previous international experience on motivation. The statistically significant main effect of previous international experience was examined further using the Mann-Whitney U test to confirm the findings of the ANOVA. Outliers were found in the data, as assessed by inspection of a boxplot. Because these outliers were perceived to be genuinely unusual values and not the result of a data entry error or measurement error they were retained. Motivation scores for each level of previous international experience were not normally distributed, as assessed by Shapiro-Wilks test ($p < .05$). The Mann-Whitney U test was used because the data were not normally distributed and had unequal groups. The four assumptions of the test, i.e., one continuous or ordinal dependent variable, independent variable is categorical

with at least two groups, independent observations, and the distributions for the levels of the independent variable have the same shape, were met.

Figure 11 illustrates the distributions of motivation scores for students with and without previous international experience. Previous international experience was defined as physically traveling to a destination outside of the United States and its territories at least once. Analysis revealed 118 students with previous international experience and 263 without such experience. Motivation scores of students with previous international experience ($Mdn = 4.67$) differed statistically significantly from students without previous international experience ($Mdn = 4.00$) for enrolling in a short-term study abroad course or experience, $U = 12,135.50$, $z = -3.742$, $p = .001$, $r = .19$, which represented a small to medium effect.

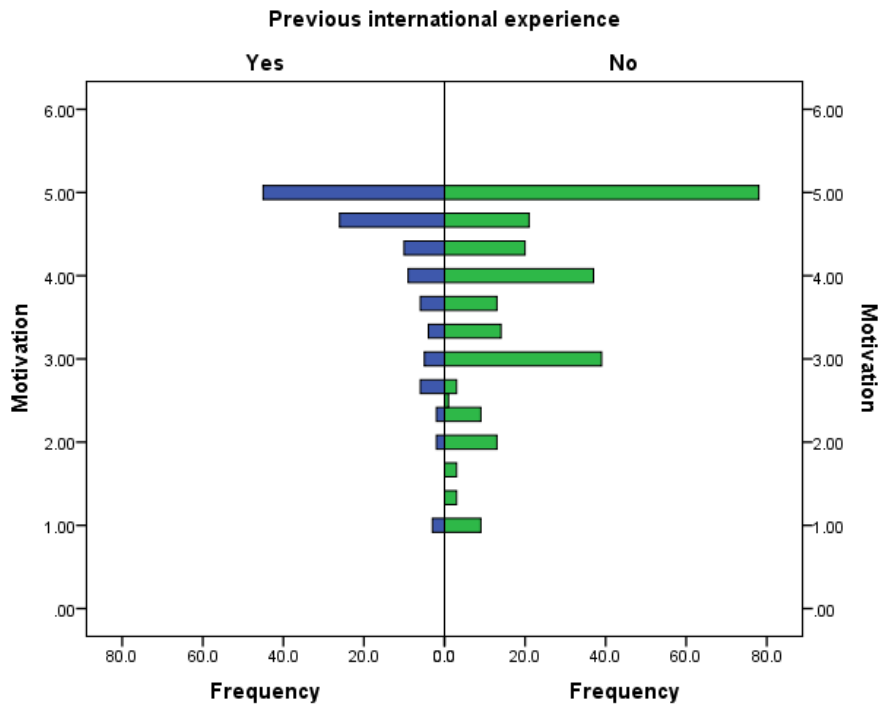


Figure 11. Population pyramid for previous international experience and motivation scores of the students.

Findings for Research Question Four – Was there an association between gender, previous international experience, first-generation status, and perceived costs?

Research question four sought to determine the associations between perceived costs and gender, previous international experience, and first-generation status. For gender and perceived costs, no outliers were found in the data, as assessed by an inspection of the boxplots.

Homogeneity of variances existed for males and females and loss of valued alternatives cost scores ($p = .230$) and task effort cost scores ($p = .058$), as assessed by Levene's test for equality of variances. Homogeneity of variances was not found to exist for males and females and emotional cost scores ($p = .005$) and outside effort cost scores ($p = .038$). Perceived costs by gender were not normally distributed, as assessed by Shapiro-Wilk's test ($p < .05$). Thus, a nonparametric alternative test, i.e., Kendall's tau-b point-biserial correlation, was calculated (Marascuilo & McSweeney, 1977).

For previous international experience and perceived costs, no outliers were present in the data, as assessed by inspection of a boxplot. Homogeneity of variances existed for previous international experience and outside effort cost scores ($p = .472$) and loss of valued alternatives cost scores ($p = .148$). Homogeneity of variances was not found for previous international experience emotional cost scores ($p = .003$) and task effort cost scores ($p = .014$), as assessed by Levene's test for equality of variances. Perceived costs scores by previous international experience were not distributed normally, as assessed by Shapiro-Wilk's test ($p < .05$). Because a violation of the normality assumption occurred, a nonparametric alternative, i.e., Kendall's tau-b point-biserial correlation, was calculated (Marascuilo & McSweeney, 1977; see Table 14).

For first-generation status and perceived costs, no outliers were found in the data except for between first generation status and task effort cost and first generation status and outside effort cost, as assessed by an inspection of the boxplots. In general, three reasons explain the

occurrence for outliers: data entry errors, measurement errors, and genuinely unusual values. However, the outliers were not perceived to be a result of data entry or measurement error. Therefore, it was concluded these were genuinely unusual values. A comparison of the results from the point-biserial correlations with and without outliers was made; no statistically significant difference was found. Therefore, the outliers were included in the main analysis because the results would not be significantly affected. Homogeneity of variances was present for first generation status and emotional cost scores ($p = .572$), outside effort cost scores ($p = .291$), loss of valued alternatives cost scores ($p = .210$), and task effort cost scores ($p = .742$), as assessed by Levene's test for equality of variances. Perceived costs by first-generation status were not normally distributed, as assessed by Shapiro-Wilk's test ($p < .05$). Thus, a nonparametric alternative test, i.e., Kendall's tau-b point-biserial correlation, was calculated (Marascuilo & McSweeney, 1977).

In addition, a Kendall's tau-b correlation was used to determine the association between perceived costs and gender, perceived costs and previous international experience, and perceived costs and first-generation status among the 381 freshmen, agricultural students. Gender was statistically significantly and negatively related to ranked loss of valued alternatives cost scores, $\tau_b = -.14, p = .00$. Previous international experience was statistically significantly and positively related to emotional cost scores ($\tau_b = .17, p = .00$), outside effort cost scores ($\tau_b = .10, p = .02$), loss of valued alternatives cost scores ($\tau_b = .14, p = .00$), and task effort cost scores ($\tau_b = .17, p = .00$). First-generation status was not statistically significantly related to ranked perceived costs scores, ($\tau_b = -.05$ to $-.07, p > .05$). Table 14 displays the associations between perceived costs and students' selected characteristics.

Table 14

Kendall's tau-b Correlation Coefficients for Perceived Costs Variables and Students' Selected Characteristics (N = 381)

Perceived Cost Sub-Scale	Gender	Previous International Experience	First-Generation Status
Emotional cost	-.03	.17*	-.06
Outside effort cost	-.06	.10*	-.05
Loss of valued alternatives cost	-.14**	.14**	-.05
Task effort cost	-.07	.17**	-.07

Note. A Kendall's tau-b coefficient that is closer to zero indicates a weak association, and the closer Kendall's tau-b coefficient is to -1 or $+1$, the stronger the association. Gender (*male* = 1; *female* = 2); previous international experience (1 = *yes*; *no* = 2); and first-generation status (*yes* = 1; *no* = 2). * $p < .05$; ** $p < .01$.

Findings for Research Question Five – What were the associations between perceived costs and motivation to enroll in a short-term study abroad course or experience?

Research question five sought to determine the association between the continuous variables examined in this study: motivation scores, emotional cost scores, outside effort cost scores, loss of valued alternatives scores, and task effort cost scores. Not all variables were distributed normally, as assessed by Shapiro-Wilk's test ($p < .05$). As a result, the non-parametric alternative, i.e., Kendall's tau-b test, was used.

The emotional cost scores of freshmen, agricultural students were statistically significantly and negatively related to ranked motivation scores ($\tau_b = -.35, p = .000$). Outside

effort cost scores were statistically significantly and negatively related to ranked motivation scores ($\tau_b = -.41, p = .000$). In addition, the loss of valued alternatives cost scores were also statistically significantly and negatively related to ranked motivation scores ($\tau_b = -.44, p = .000$). Task effort cost scores were also statistically significantly and negatively related to ranked motivation scores ($\tau_b = -.44, p = .000$). Table 15 displays the associations between the continuous variables measured in this study.

Table 15

Kendall's tau-b Correlation Coefficients for Perceived Costs Variables and Motivation Scores (N = 381)

Cost Sub-Scale	N	Motivation	p
Emotional cost	381	-.35**	.000
Outside effort cost	381	-.41**	.000
Loss of valued alternatives cost	381	-.44**	.000
Task effort cost	381	-.44**	.000

Note. There are no guidelines for determining how strong the association is for different values. However, a Kendall's tau-b coefficient that is closer to zero indicates a weak association, and the closer Kendall's tau-b coefficient is to -1 or $+1$, the stronger the association. ** $p < .01$.

Findings for Research Question Six – How do perceived costs differ when compared by gender, previous international experience, and first-generation status?

Research question six sought to determine how perceived costs differed when compared by students' genders, previous international experience, and first-generation status. Three independent variables were investigated in a $2 \times 2 \times 2$ factorial design: the gender of the participant, i.e., male or female, previous international experience of the students, including whether experienced or inexperienced, and the first-generation status of the participant, first-

generation or non-first-generation. The dependent variables were perceived costs: emotional cost, outside effort cost, loss of valued alternatives cost, and task effort cost. Participants were asked to rate a series of items using 5-point, Likert-type scales.

A three-way MANOVA was run with the three independent variables and four dependent variables mentioned above. The combined emotional cost, outside effort cost, loss of valued alternatives cost, and task effort cost were used to assess students' perceived costs. A linear relationship existed between the dependent variables, as assessed by scatterplot, and no evidence of multicollinearity was revealed, as measured by Pearson correlation ($r < 0.9$). Univariate outliers were present in the data, but they were considered unique values and not the result of measurement or data entry error. Seven multivariate outliers in the data were exposed, as assessed by Mahalanobis distance ($p > .001$). Perceived costs scores were not normally distributed, as assessed by Shapiro Wilk's test ($p < .05$). Homogeneity of covariance matrices did not exist, as assessed by Box's M test ($p = .001$), nor did homogeneity of variances for outside effort cost and loss of valued alternatives cost, as assessed by Levene's Test of homogeneity of variance ($p > .05$).

The three-way interaction effect between gender, previous international experience, and first-generation status on the combined dependent variables, i.e., emotional cost, outside effort cost, loss of valued alternatives cost, and task effort cost, was not statistically significant, $F(4, 370) = .474, p = .755, \text{Pillai's} = .005, \text{partial } \eta^2 = .005$. Since the three-way interaction was not statistically significant, the two-way interactions on the combined dependent variables were evaluated. No statistically significant two-way interactions were found between students' genders and first-generation status, $F(4, 370) = .220, p = .927, \text{Pillai's} = .002, \text{partial } \eta^2 = .002$, students' genders and previous international experience, $F(4, 370) = .402, p = .807, \text{Pillai's} = .002, \text{partial } \eta^2 = .004$, and students' first-generation status and previous

international experience, $F(4, 370) = .700, p = .593$, Pillai's $\lambda = .008$, partial $\eta^2 = .008$, on motivation to enroll in a short-term study abroad course or experience. Since two-way interactions were not statistically significant, the next step was to evaluate main effects. The main effect of previous international experience on the combined perceived costs variables was statistically significant, $F(4, 370) = 3.284, p = .012$, Pillai's $\lambda = .034$, partial $\eta^2 = .034$. However, the main effect of gender on the combined perceived costs variables was not statistically significant, $F(4, 370) = 1.703, p = .149$, Pillai's $\lambda = .018$, partial $\eta^2 = .018$, nor was the main effect of first-generation status statistically significant, $F(4, 370) = .351, p = .843$, Pillai's $\lambda = .004$, partial $\eta^2 = .004$.

Main effect of previous international experience on perceived costs. The statistically significant main effect of previous international experience was examined further using the Mann-Whitney U test to confirm the findings of the MANOVA. The analysis revealed 118 students with previous international experience and 263 students without previous international experience. The data file was split by previous international experience status, and the non-parametric test was used to provide guidance for its effects on each of the four perceived costs scores. In all cases, the Mann-Whitney U tests were used to determine if differences in perceived costs scores between students with and without previous international experience. Each cost score was statistically significantly higher for students without previous international experience. Median cost scores are illustrated in Figure 12. The individual relationships between cost type and previous international experience were explored in more detail below.

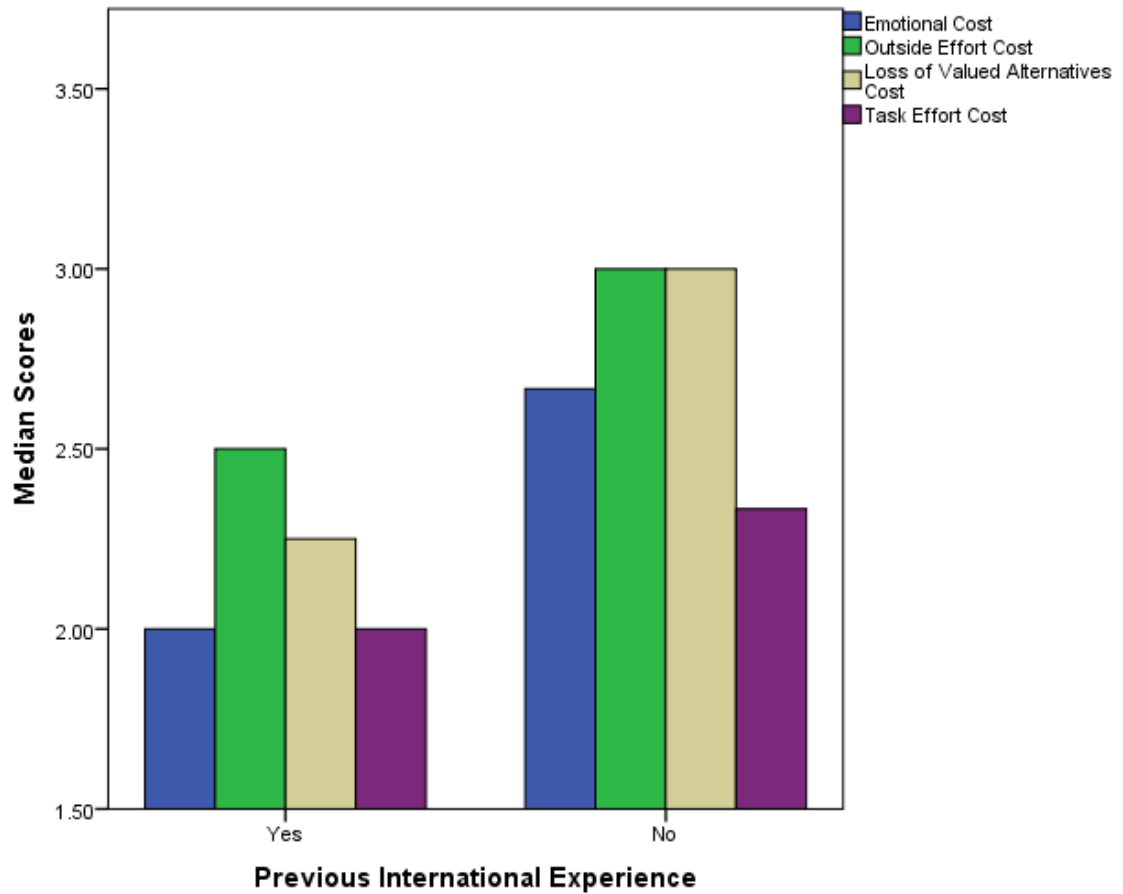


Figure 12. Median difference values representing scores for each type of perceived cost.

Differences were found in the effect of previous international experience on each median cost score.

Main effect of previous international experience on emotional cost. Distributions of the emotional cost scores for students with and without previous international experience were similar, as assessed by visual inspection (see Figure 13). Emotional cost score was statistically significantly higher for students without previous international experience ($Mdn = 2.67$) than those with previous international experience ($Mdn = 2.00$), $U = 11,776.50$, $z = -3.810$, $p = .000$, $r = -.20$.

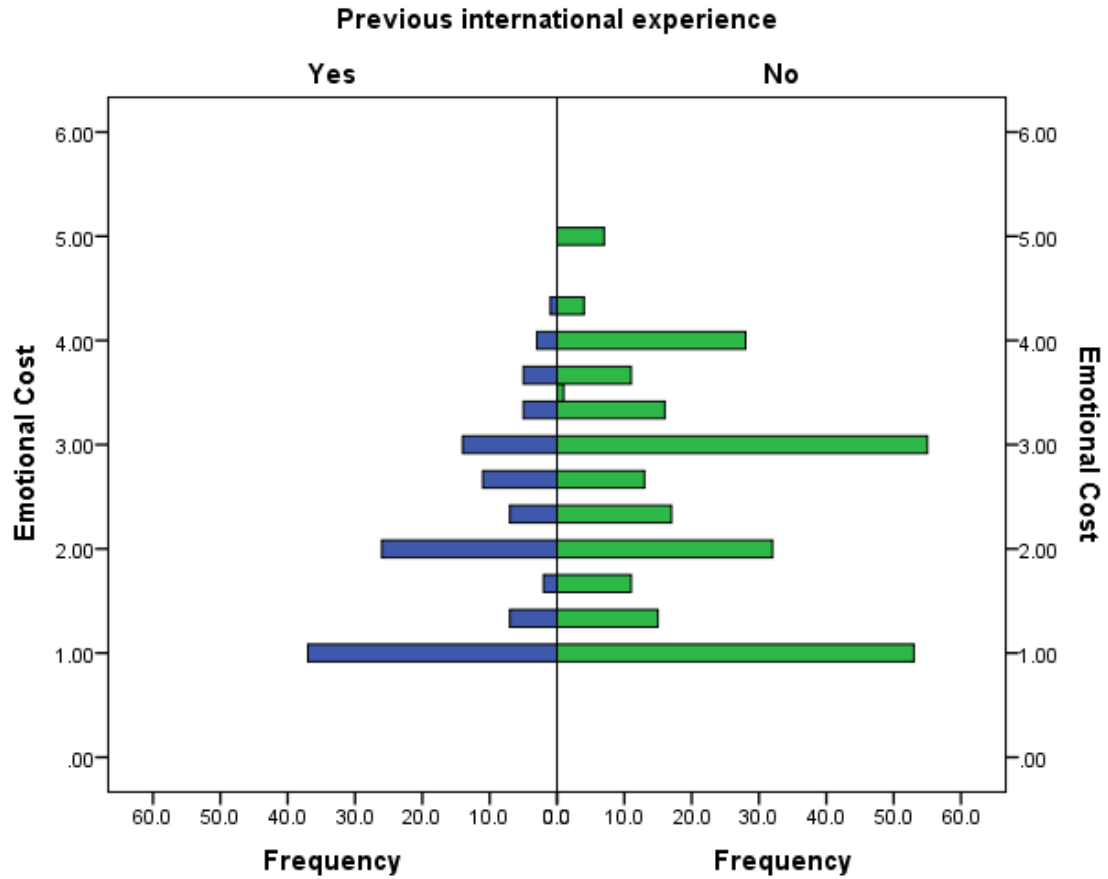


Figure 13. Population pyramid for students' previous international experience and emotional cost scores.

Main effect of previous international experience on outside effort cost. Distributions of the outside effort cost scores for students with and without previous international experience were similar, as assessed by visual inspection (see Figure 14). Outside effort cost score was statistically significantly higher for students without previous international experience ($Mdn = 3.00$) than those with previous international experience ($Mdn = 2.50$), $U = 13,243.50$, $z = -2.299$, $p = .022$, $r = -.12$.

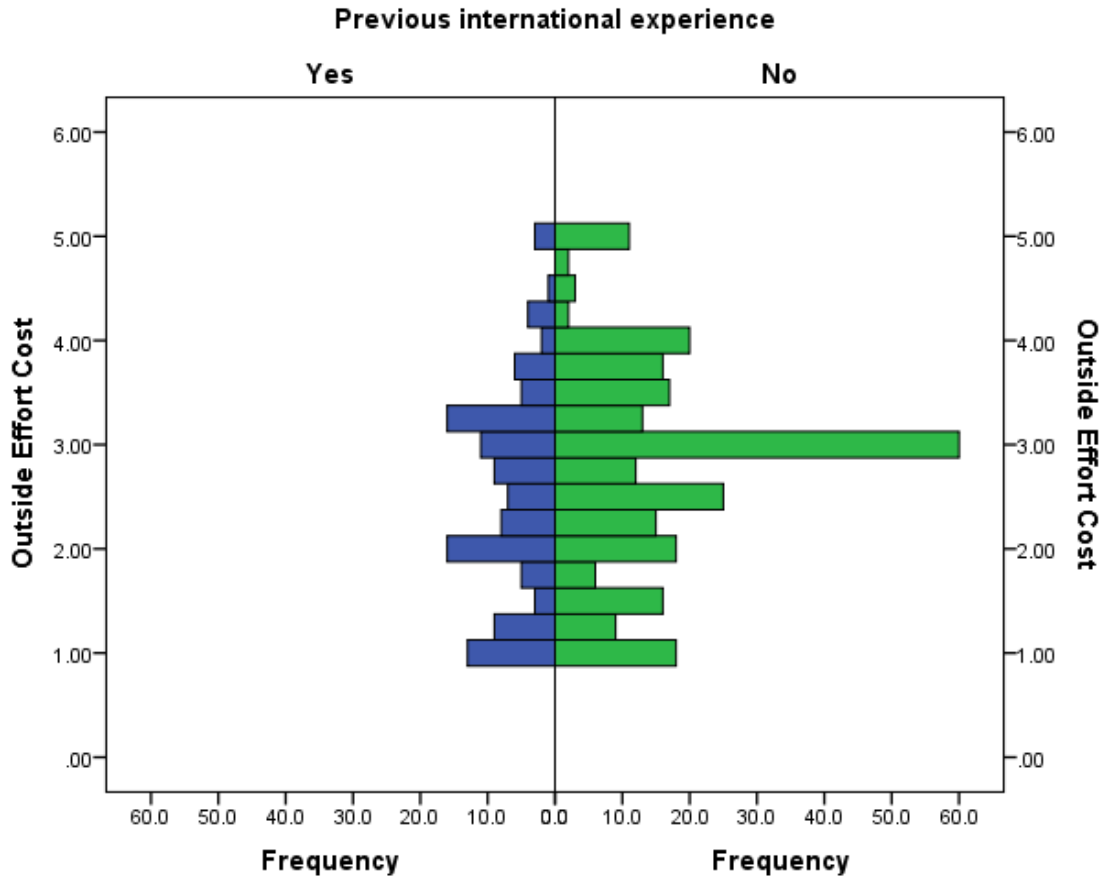


Figure 14. Population pyramid for students' previous international experience and outside effort cost scores.

Main effect of previous international experience on loss of valued alternatives cost.

Distributions of the loss of valued alternatives cost scores for students with and without previous international experience were similar, as assessed by visual inspection (see Figure 15). Loss of valued alternatives cost score was statistically significantly higher for students without previous international experience ($Mdn = 3.00$) than those with previous international experience ($Mdn = 2.25$), $U = 19,421.00$, $z = -3.154$, $p = .002$, $r = -.16$.

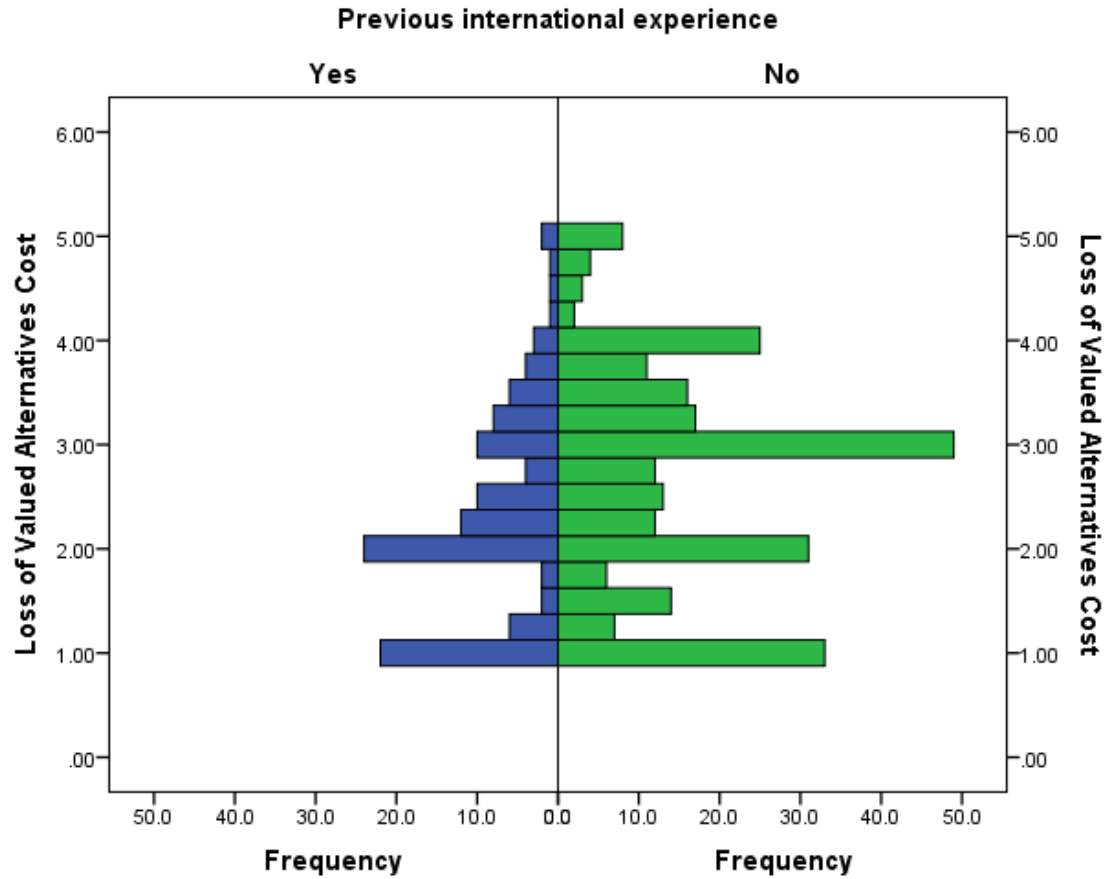


Figure 15. Population pyramid for students' previous international experience and loss of valued alternatives cost scores.

Main effect of previous international experience on task effort cost. Distributions of the task effort cost scores for students with and without previous international experience were similar, as assessed by visual inspection (see Figure 16). Task effort cost score was statistically significantly higher for students without previous international experience ($Mdn = 2.33$) than those with previous international experience ($Mdn = 2.00$), $U = 11,741.00$, $z = -3.860$, $p = .000$, $r = -.20$.

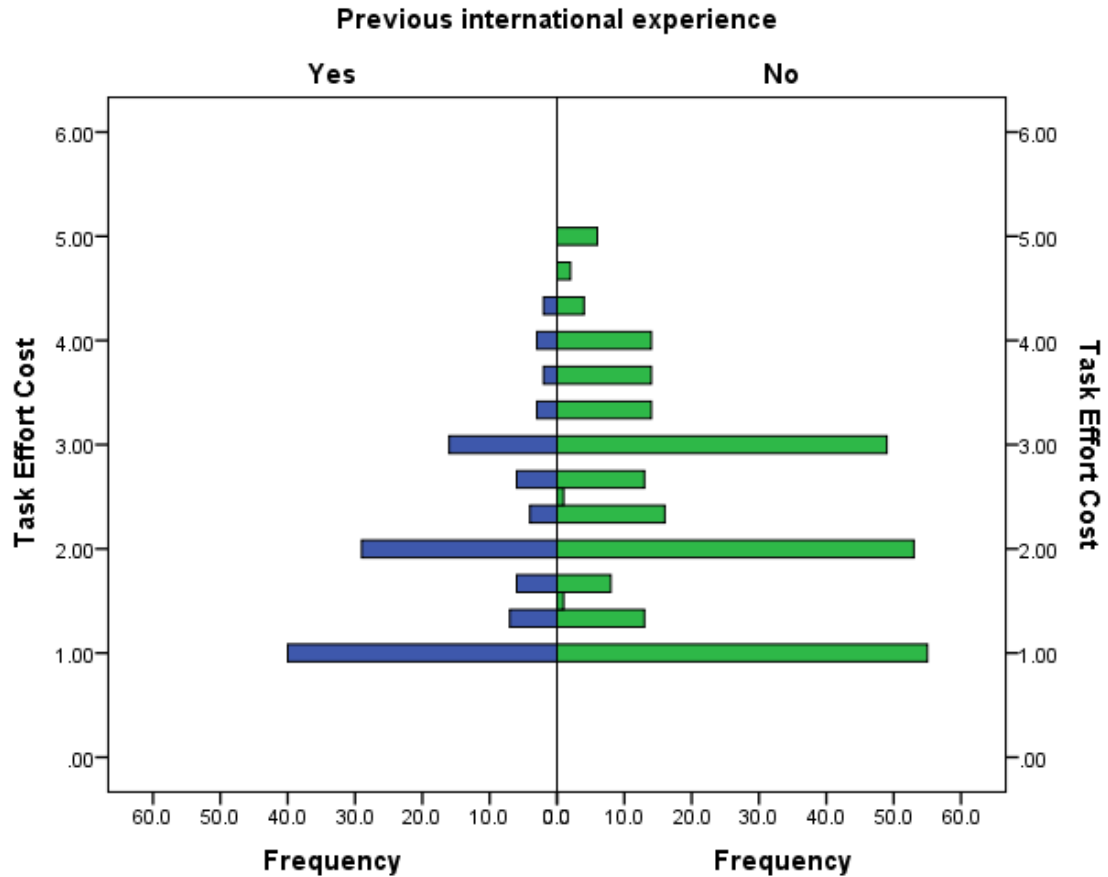


Figure 16. Population pyramid for students' previous international experience and task effort cost scores.

Findings for Research Question Seven – Could motivation to enroll in a short-term study abroad course or experience be predicted based on gender, previous international experience, first-generation status, and perceived costs?

Research question eight sought to predict students' motivations to enroll in a short-term study abroad course or experience based on their measured perceived costs and selected personal characteristics. The following eight variables – the dependent variable, motivation, which is students' forecasted estimation of their future desire to enroll in a short-term study abroad course or experience; the continuous independent variables: emotional cost, outside effort cost, loss of

valued alternatives cost, and task effort cost; and the dichotomous independent variables: gender, which had two categories; first-generations status, which had two categories; and previous international experience, which had two categories – were used in the study’s prediction analyses.

The assumptions checking procedure for the multiple linear regression analysis resulted in the creation of five new variables: unstandardized predicted values; studentized residuals; studentized deleted residuals; Cook’s Distance values; and leverage values. Independence of residuals was found, as assessed by a Durbin-Watson statistic of 2.007. A scatterplot of the studentized residuals against unstandardized predicted values formed a horizontal band. Thus, the linear relationship between the dependent variable and independent variables was likely to be linear (see Figure 17).

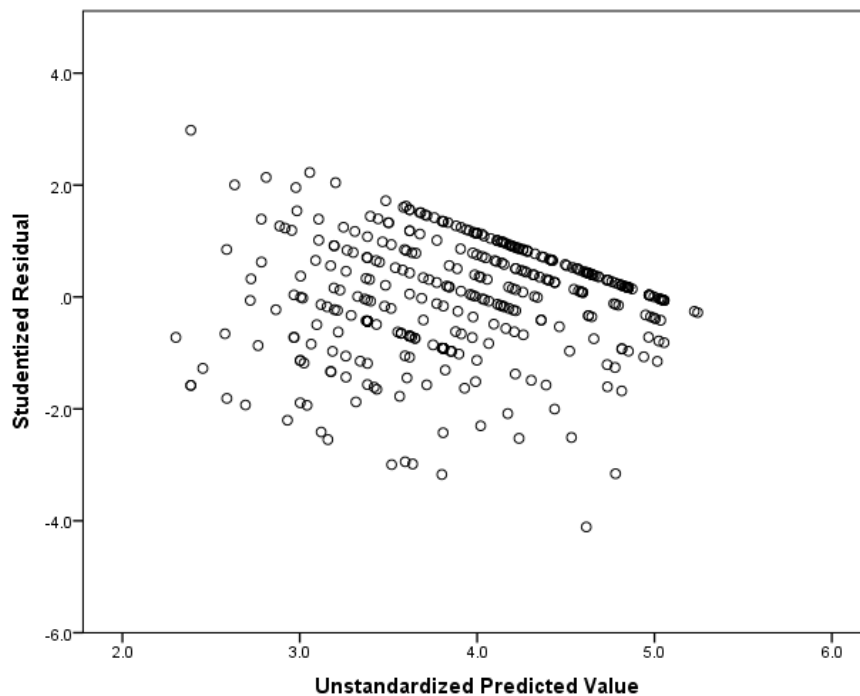


Figure 17. Scatterplot of studentized residual and unstandardized predicted value.

To establish if a linear relationship existed between the dependent variable and independent variables, each of the partial regression plots were examined. Categorical

independent variables, such as gender, first-generation status, and previous international experience, were ignored. Figure 18 illustrates the partial regression plot between motivation and emotional cost. The plot shows a somewhat linear relationship between motivation and emotional cost. Figure 19 illustrates the partial regression plot between motivation and outside effort cost. The plot shows a somewhat linear relationship between motivation and outside effort cost. Figure 20 illustrates the partial regression plot between motivation and loss of valued alternatives cost. The plot shows a somewhat linear relationship between motivation and loss of valued alternatives cost. Figure 21 illustrates the partial regression plot between motivation and task effort cost. The plot shows a somewhat linear relationship between motivation and task effort cost. Each of the relationships between the dependent variable and independent variables appear to be linear. Taken together, each combination of variables did not fail the assumption of linearity.

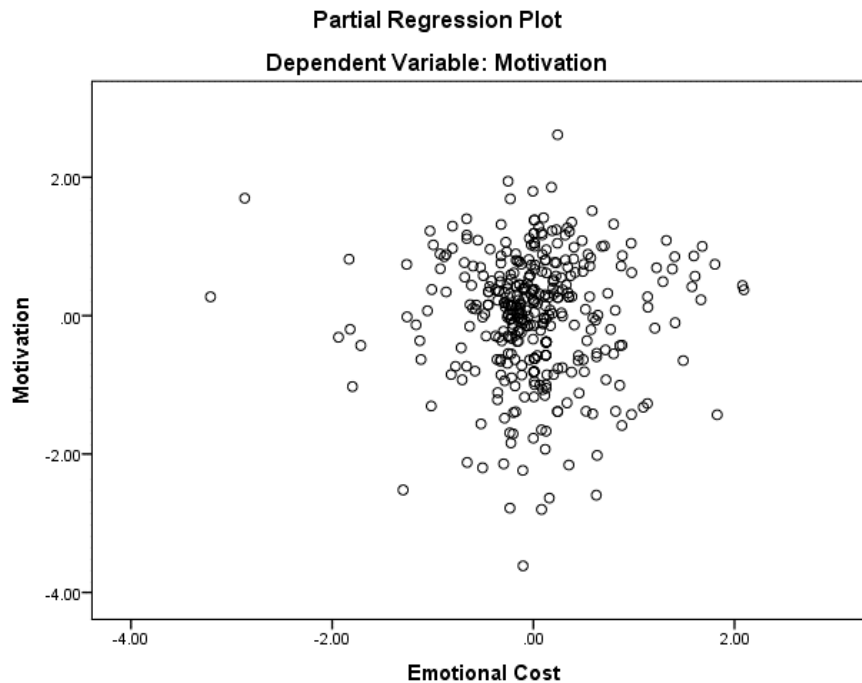


Figure 18. Partial regression plot of student motivation and emotional cost.

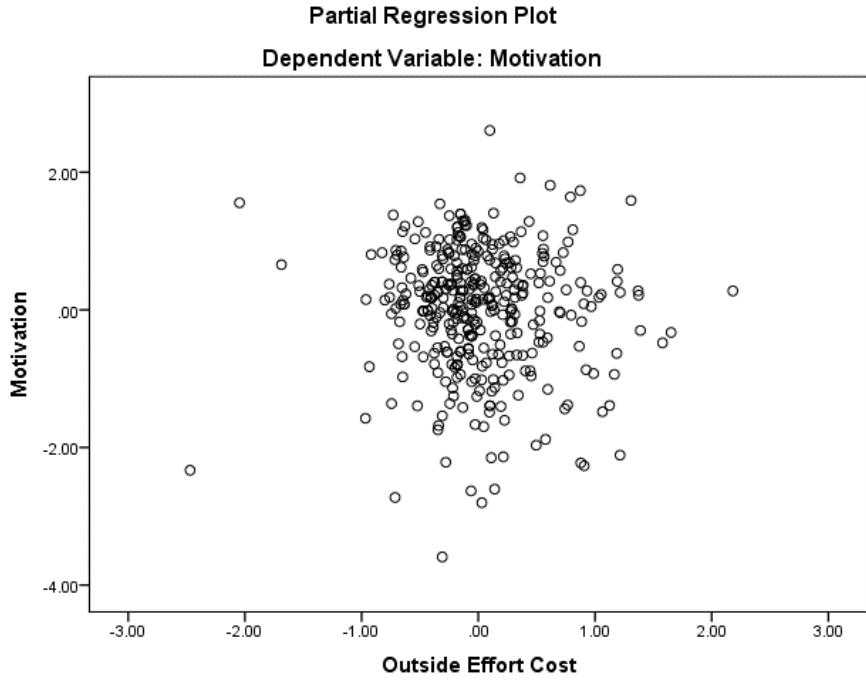


Figure 19. Partial regression plot of student motivation and outside effort cost.

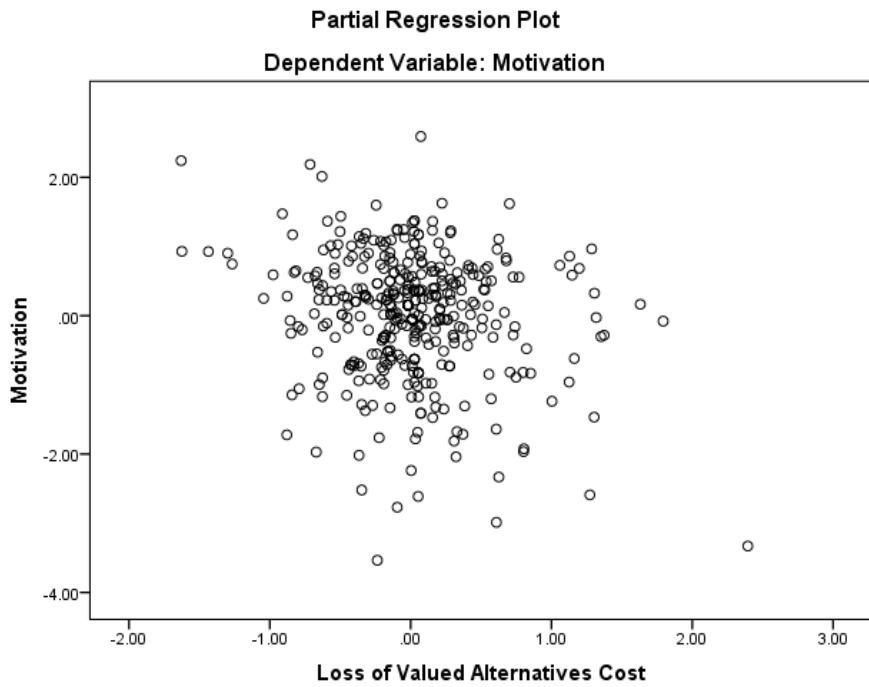


Figure 20. Partial regression plot of student motivation and loss of valued alternatives cost.

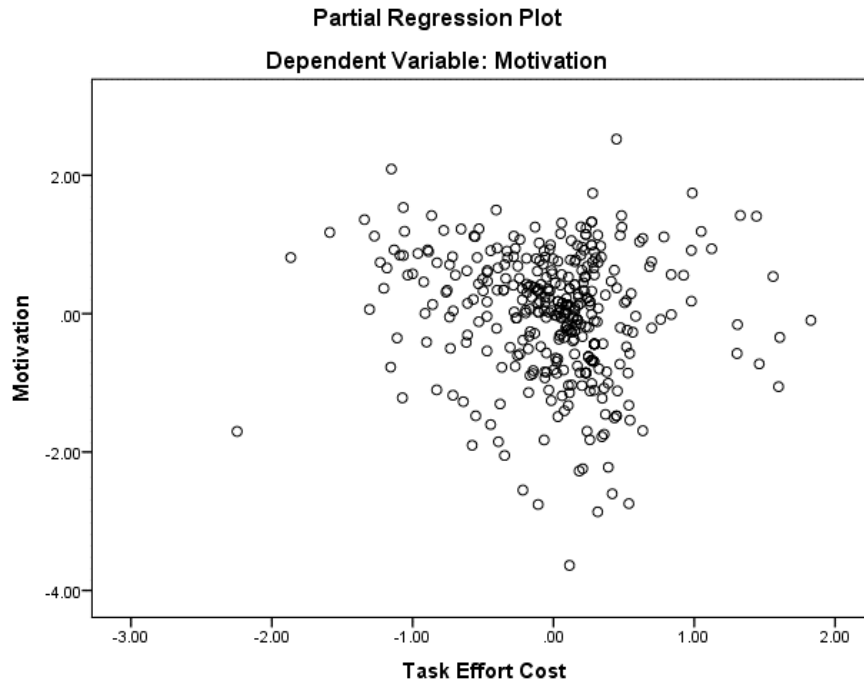


Figure 21. Partial regression plot of student motivation and task effort cost.

The assumption of homoscedasticity is that residuals are equal for all the values of the predicted dependent variable. In this study, motivation is the dependent variable. The spread of the residuals did not increase or decrease across the predicted values. Therefore, homoscedasticity was present, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values (see Figure 22).

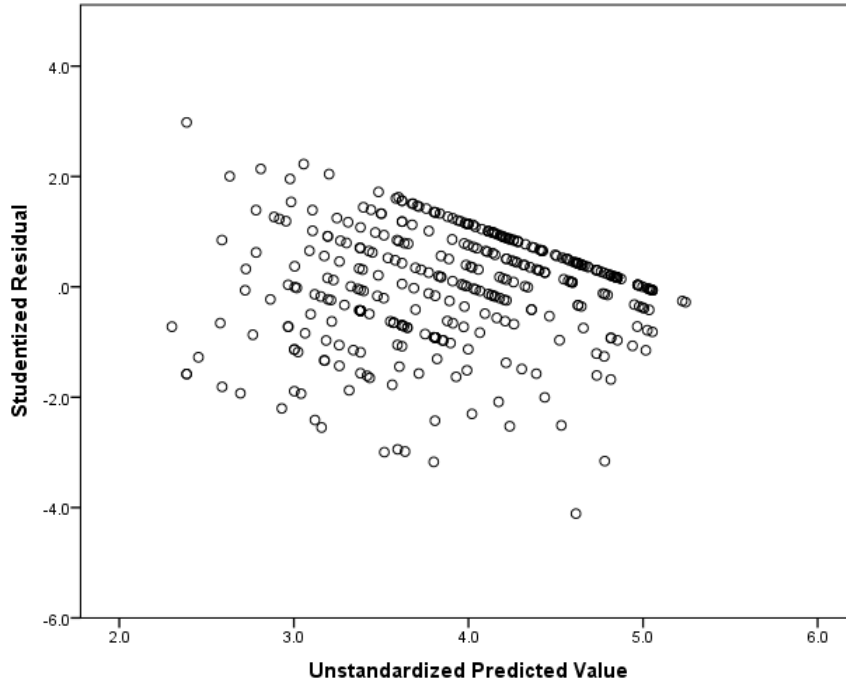


Figure 22. Plot of studentized residuals versus unstandardized predicted values.

Next, multicollinearity occurs when two or more independent variables are highly correlated with each other. An inspection of the correlations table revealed the relationships between the independent variables, which is not reported here. No evidence existed of independent variables having correlations larger than 0.9. More important, the Tolerance collinearity statistic was consulted to determine the presence of multicollinearity. Tolerance values less 0.1 suggest that a multicollinearity problem might exist. In the current study, the Tolerance values were larger than 0.1. Thus, it could be assumed that no collinearity problems existed within the data set. After inspecting the studentized deleted residual values, six observations with residuals ± 3 standard deviations were present and deemed as potential outliers. At this stage, outliers were not removed because they did not appear to be the result of measurement or data entry error.

An inspection of the ordered leverage values found no cases that had problematic leverage values above the value of 0.2. Because the six observations deemed potential outliers did not have any large leverage values, such were not removed. An inspection of the ordered values for Cook's Distance determined whether any influential points or cases existed. No Cook's Distance values were above 1. Therefore, it was determined that the data set did not contain any highly influential points. Finally, an inspection of the histogram revealed that the standardized residuals appeared approximately normally distributed (see Figure 23). However, to confirm this finding the P-P plot was examined (see Figure 24). The points were aligned relatively along the diagonal line. Therefore, it was concluded that the data did not violate the assumption of normality, as assessed by inspection of the P-P plot.

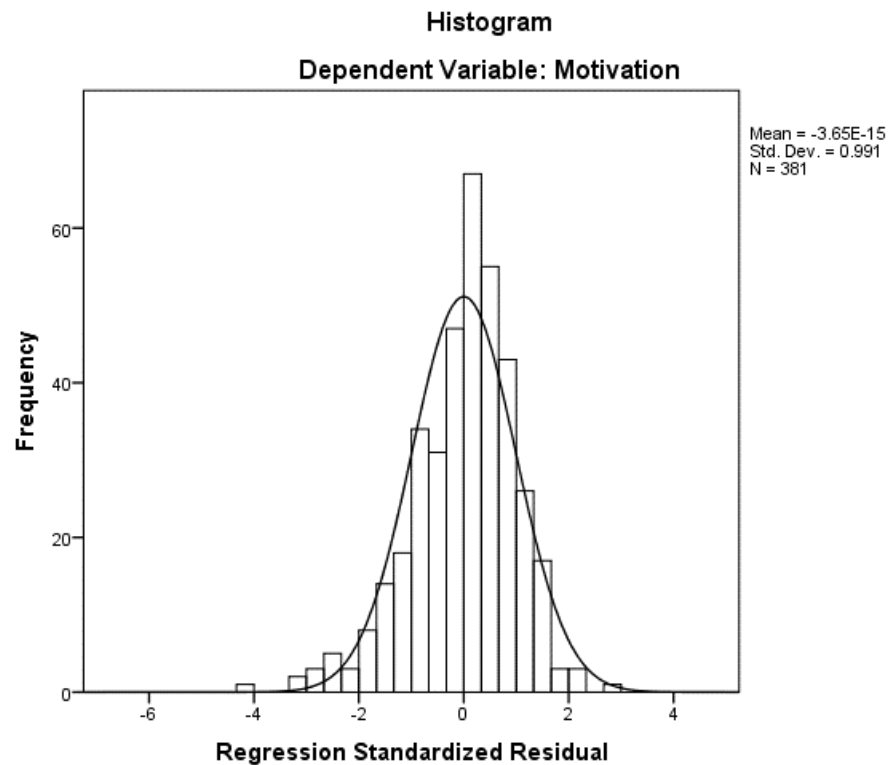


Figure 23. Histogram of the regression's standardized residuals.

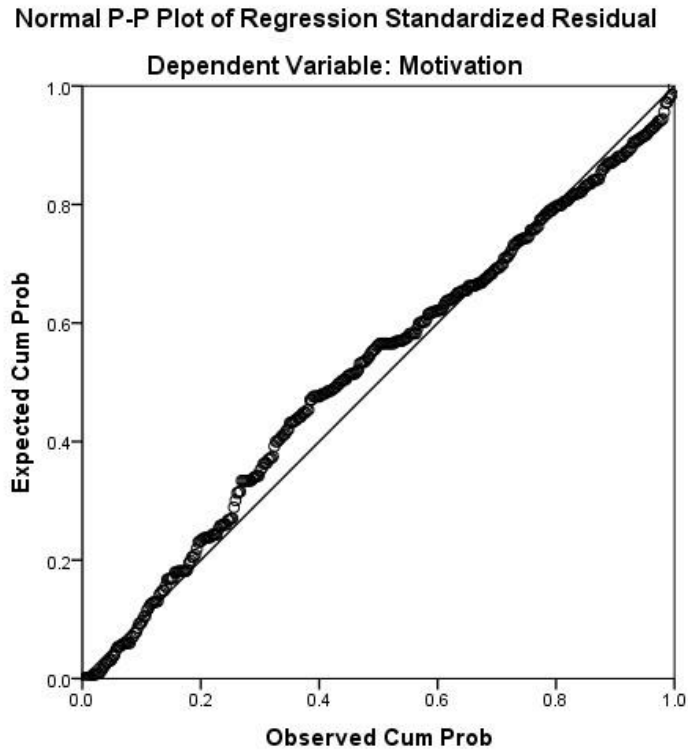


Figure 24. P-P Plot of the regression’s standardized residuals.

Based on the findings from the assumptions checking procedure, the data were deemed suitable for analysis. A multiple regression was run to predict motivation from outside effort cost, task effort cost, loss of valued alternatives cost, and emotional cost, gender, first-generation status, and previous international experience. Linearity existed, as assessed by partial regression plots and a plot of studentized residuals against the predicted values. Independence of residuals was also found, as assessed by the Durbin-Watson statistic of 2.007. And homoscedasticity was revealed, as determined by visual inspection of a plot of studentized residuals versus unstandardized predicted values. No evidence of multicollinearity was found, as assessed by tolerance values greater than 0.1. Six studentized deleted residuals were revealed greater than ± 3 standard deviations. However, no leverage values were greater than 0.2 or Cook’s distance values above 1. For these reasons, the six deemed outliers were retained in the data set. The assumption

of normality was met, as assessed by the plot of studentized residuals versus unstandardized predicted values.

The multiple regression model statistically significantly predicted motivation, $F(7, 373) = 29.106, p = .000, \text{adj. } R^2 = .341$. Four of seven variables added statistically significantly to the prediction, $p < .05$. First-generation status, emotional cost, and outside effort cost did not contribute to the multiple regression model. The four predictor model did account for 34.1% of the variance in students' motivation to enroll in a short-term study abroad course or experience. The loss of valued alternatives and task effort costs scores had statistically significant negative regression weights. This indicated that as students' perceived costs scores increased, motivation to enroll in a short-term study abroad course or experience decreased. The gender variable also had a statistically significant positive weight. This indicated that female students were more motivated to enroll in a short-term study abroad course or experience than males. In addition, the previous international experience variable had a statistically significant negative weight. This indicated that students with previous international experience changed were more motivated to enroll in a short-term study abroad course or experience than those without such experience. A full account of the regression coefficients and standard errors can be found in Table 16. Figure 25 illustrates the revised PCoSAI, including regression weights for each of the statistically significant variables.

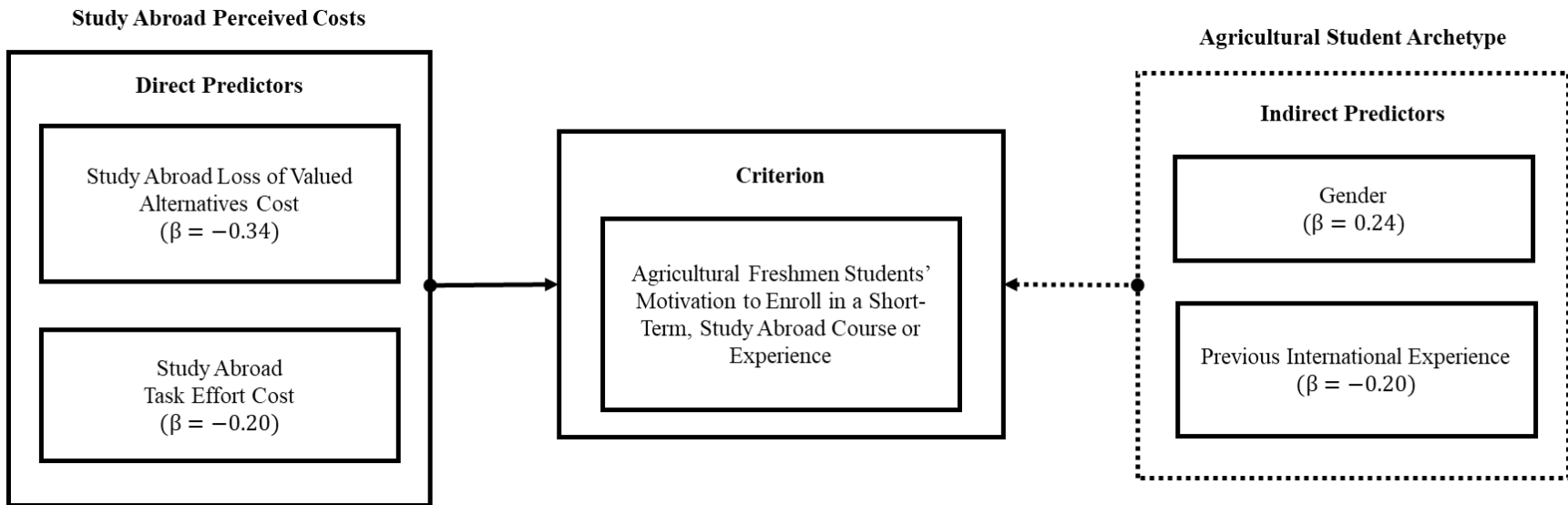


Figure 25. Revised Perceived Costs of Studying Abroad Model.

Table 16

Summary of the Study's Multiple Regression Analysis (N = 381)

Variable	Unstandardized Coefficient <i>B</i>	Standard Error of the Coefficient <i>SE_β</i>	Standardized Coefficients <i>β</i>	<i>p</i>
Intercept	5.77	.35		
Gender	0.24*	.10	0.09*	.02*
Generation Status	-0.19	.10	-0.07	.08
Experience ^a	-0.20*	.10	-0.08*	.04*
Emotional Cost	-0.00	.07	-0.00	.99
Outside Effort Cost	-0.07	.08	-0.07	.39
LOVA ^b Cost	-0.34*	.09	-0.32*	.00*
Task Effort Cost	-0.20*	.08	-0.19*	.02*

Note. β = standardized beta coefficient; SE_{β} = standard error of the coefficient; ^aExperience = previous international experience; ^bLOVA = loss of valued alternatives cost. * $p < .05$.

Post hoc power analyses were conducted using G*Power (Erdfelder, Faul, & Buchner, 1996). The sample size of 381 was subjected to statistical power analyses using a seven predictor variable equation. The recommended effect sizes used for this assessment included: small ($f^2 = .02$), medium ($f^2 = .15$), and large [$f^2 = .35$] (Cohen, 1977). An alpha level of $p < .05$ was used a priori. The post hoc analyses for the multiple regression omnibus test revealed the statistical power for this study was .47 for detecting a small effect and power exceeded 1.00 for the detection of a moderate to large effect size. As such, there was a 99.9% chance of correctly predicting motivation to enroll in a short-term study abroad course or experience.

The regression equation for the study can be expressed in the following form:

$$\text{Motivation} = b_0 - (b_1 \times \text{LOVA}) + (b_2 \times \text{Gender}) - (b_3 \times \text{Task Effort}) - (b_4 \times \text{Experience}),$$

Where as b_0 is the intercept and b_1 through b_4 are the slope coefficients. Substituting the values for b_1 through b_4 allowed for the prediction of motivation given any values entered for LOVA,

gender, task effort cost, and previous international experience. The substituted values of the coefficients into the regression equation are expressed as

$$\text{Motivation} = 5.77 - (0.34 \times \text{LOVA}) + (0.24 \times \text{Gender}) - (0.20 \times \text{Task Effort}) \\ - (0.20 \times \text{Experience})$$

This regression equation can be used to predict values of agricultural university freshmen's motivation to enroll in a short-term study abroad course or experience before graduating for a given set of values regarding loss of valued alternatives cost, gender, task effort cost, and previous international experience.

Summary

Chapter IV reported a detailed account of this study's findings. The results were summarized below:

- In response to research question one, four factors emerged, indicating that the perceived costs sub-scales used to collect data for this study interacted with the population as theory suggested.
- In response to research question two, female motivation scores were statistically significantly more likely to be higher. Students with previous international experiences' motivation scores were statistically significantly more likely to be higher, while first-generation students were not statistically significantly more likely to have higher motivation scores.
- In response to research question three, no simple main effects were present, which indicated that there was no interaction between gender, previous international experience, and first-generation status. A statistically significant main effect of previous international

experience was present. Motivation scores for students with previous international experience were significantly greater than students without such experience.

- In response to research question four, male motivation scores were statistically significantly more likely to be lower. Students without previous international experience were significantly more likely to have higher emotional cost, outside effort cost, loss of valued alternatives cost, and task effort cost scores. First-generation and non-first-generation students were equally likely to have similar emotional cost, outside effort cost, loss of valued alternatives cost, and task effort cost scores.
- In response to research question five, students with low motivation scores were statistically significantly more likely to have high emotional cost scores. Students with low motivation scores were statistically significantly more likely to have high outside effort cost scores. Students with low motivation scores were significantly more likely to have high loss of valued alternatives cost scores. Students with low motivation scores were significantly more likely to have high task effort cost scores.
- In response to research question six, no simple main effects were present, indicating that there was no interaction between gender, previous international experience, and first-generation status. One main effect was present, indicating a statistically significant effect of previous international experience on perceived costs scores. Post hoc analyses revealed a statistically significant effect of previous international experience for emotional cost, outside effort cost, loss of valued alternatives cost, and task effort cost scores.
- In response to research question seven, the multiple regression model predicted motivation. Four of seven variables added statistically significantly to the prediction. First-generation status, emotional cost, and outside effort cost did not contribute to the multiple regression model.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS, AND

DISCUSSION

U.S. agricultural students account for less than 2% of education abroad program participation annually (IIE, 2017). Education abroad opportunities have been identified as high-impact learning experiences for students that foster international competence and global understanding (Kuh, 2008). Short-term study abroad courses or experiences remained the most popular education abroad option for students wishing to gain such experience (IIE, 2017). To our knowledge, however, no evidence existed that the EVC model of achievement explained by Barron and Hulleman (2015) is useful for understanding student enrollment in short-term study abroad courses or experiences. In response to this need, this study proposed to determine the perceived costs factors that influence students' motivations to participate, while examining the effects of gender, previous international experience, and first-generation status, relationships and differences between these variables, and their usefulness for predicting motivation.

Research Questions

Seven research questions guided a description of the relationships between personal characteristics of CASNR students at OSU enrolled in the Freshman Orientation course (AG 1011) during the Fall semester of 2017 and their conceptions about perceived costs:

1. Which items best represent the underlying factors of perceived costs regarding freshmen agricultural students' motivations to enroll in a short-term study abroad course or experience?
2. What were the associations between motivation to enroll in a short-term study abroad course or experience and gender, previous international experience, and first-generation status?
3. Was there an interaction between gender, previous international experience, and first-generation status among students on motivation to enroll in a short-term study abroad course or experience?
4. Was there an association between gender, previous international experience, first-generation status, and perceived costs?
5. What were the associations between perceived costs and motivation to enroll in a short-term study abroad course or experience?
6. How did perceived costs differ when compared by gender, previous international experience, and first-generation status?
7. Could motivation to enroll in a short-term study abroad course or experience be predicted based on gender, previous international experience, first-generation status, and perceived costs?

Chapter I introduced the need for the study, research questions, important terms, and the target population. Chapter II provided an overview of theoretically relevant variables and described previous research related to their influence on motivation in the context of international experience participation, including efforts devoted to measuring perceived costs. Chapter III outlined the methods used to answer this study's research questions, including description of the population, instrumentation, threats to validity and reliability, and checking assumptions, and describing the analyses procedures. Chapter IV provided a detailed account of the findings for this study. Chapter V provides context and assigns meaning to the study's findings, including links to prior research, conclusions and implications, as well as opportunities for future research.

Methods

The design of this study was non-experimental and utilized exploratory factor analysis to answer research question one, Kendall's tau-b Correlation Coefficient to answer research questions two, four, and five, factorial ANOVAs to answer research question three, including Mann-Whitney U tests, factorial MANOVAs to address research question seven, including Mann-Whitney U tests, and multiple regression to provide findings for research question eight. The dependent variables, based on Barron's and Hulleman's (2015) expectancy-value-cost model of achievement, were chosen intentionally to examine the factor structure of perceived costs in the context of participating in a short-term study abroad course or experience with freshmen students in the College of Agricultural Sciences and Natural Resources (CASNR) at Oklahoma State University (OSU) during the Fall semester of 2017. The study's independent variables included gender, previous international experience, and first-generation status.

All students enrolled in the Freshman Orientation Course (AG 1011) offered by CASNR at OSU during the Fall semester of 2017 served as the sample for this study. The study consisted of a population of 566 of those students. Data collection began in September 2017 and lasted

approximately one week. CASNR's International Programs Office provided the frame for the study. Four hundred and thirty-nine students completed IRB consent forms for a 77.5% response rate. After excluding incomplete observations, the useable number of observations reduced the response rate to 67.3% ($n = 381$). Non-response error was handled by comparing students based on gender using institutional data obtained through the study. Non-parametric tests found no statistically significant differences existed between the male and female students. Therefore, it was concluded the study's findings were generalizable to the population of students who enroll in the Ag 1011 course over time (Oliver & Hinkle, 1982). Perceived costs were measured using 20 items adapted from the expectancy-value-cost model of achievement instrument (Flake et al., 2015). In addition, this measure included items intended to measure students' personal characteristics, such as gender, previous international experience, and first-generation status. Data were analyzed using SPSS version 24. Procedures for checking assumptions were implemented initially for parametric analysis. However, non-parametric alternative tests were used when violations of assumptions occurred.

Summary of Findings

The following section provides a summary of the study's key findings. Findings are summarized by research question. A discussion and implications section follows the summary.

The chapter concludes with recommendations for praxis and future research.

Research Question One

Research question one sought to determine the underlying factor structure of the perceived costs factors that influence agricultural freshmen students' motivations to enroll in a short-term study abroad course or experience. Principal axis factoring with Promax rotations was used to assess the dimensionality of the scale. Items that clustered together were used to compute composite mean scores for each emergent cost factor. Four factors were extracted that explained

84% of the variance prior to rotations: emotional cost (67.9%), outside effort cost (8.2%), loss of valued alternatives cost (4.3%), and task effort cost [3.4%] (see Table 10).

Research Question Two

Research question two sought to determine the strength and direction of the association between motivation scores and gender (*male* = 1; *female* = 2), motivation scores and previous international experience (1 = *yes*; *no* = 2), and motivation scores and first-generation status (*yes* = 1; *no* = 2). Motivation scores were statistically significantly and positively related to students' gender, $\tau_b = .17, p = .000$ (see Table 13). Motivation scores were also statistically significantly and negatively related to students' previous international experience, $\tau_b = -.16, p = .001$ (see Table 13). However, motivation scores were not statistically significantly related to students' first-generation status, $\tau_b = -.02, p = .637$ (see Table 13).

Research Question Three

Research question three examined what interactions existed between students' gender, previous international experience, and first-generation status. No statistically significant three-way interaction was found between gender, previous international experience, and first-generation status, on motivation to enroll in a short-term study abroad course or experience, $F(1, 373) = .008, p = .929, \eta^2 = .000$ (see Figure 10). Likewise, no statistically significant two-way interaction existed between gender and first-generation status, $F(1, 373) = .245, p = .621, \eta^2 = .001$, nor was there any statistically significant interaction between gender and previous international experience, $F(1, 373) = .888, p = .621, \eta^2 = .002$. Finally, no statistically significant interaction was revealed between first-generation status and previous international experience, $F(1, 373) = .333, p = .564, \eta^2 = .001$. In addition, the main effect of gender on motivation was not statistically significant, $F(1, 373) = 2.149, p = .143, \eta^2 = .006$, nor was the main effect of first-generation status on motivation statistically significant,

$F(1, 373) = 1.352, p = .246, \eta^2 = .004$. The main effect for previous international experience, however, was statistically significant, $F(1, 373) = 9.401, p = .002, \eta^2 = .025$. Motivation scores of students with previous international experience ($Mdn = 4.67$) differed statistically significantly from students without previous international experience ($Mdn = 4.00$) for enrolling in a short-term study abroad course or experience, $U = 12,135.50, z = -3.742, p = .001, r = .19$ (see Figure 11).

Research Question Four

Research question four sought to determine the associations that existed between perceived costs and gender, previous international experience, and first-generation status. Ranked loss of valued alternatives cost scores were statistically significantly and negatively related to students' genders, $\tau_b = -.14, p = .00$ (see Table 14). In addition, previous international experience was statistically significantly and positively related to students' ranked emotional cost scores ($\tau_b = .17, p = .00$), outside effort cost scores ($\tau_b = .10, p = .02$), loss of valued alternatives cost scores ($\tau_b = .14, p = .00$), and task effort cost scores ($\tau_b = .17, p = .00$). Ranked perceived costs scores, however, were not statistically significantly related to students' first-generation status, [$\tau_b = -.05$ to $-.07, p > .05$] (see Table 14).

Research Question Five

Research question five examined the strength and direction of the association between students' motivation scores and perceived costs scores, i.e., emotional cost scores, outside effort cost scores, loss of valued alternatives scores, and task effort cost scores. Motivation scores were statistically significantly and negatively related to students' emotional cost scores ($\tau_b = -.35, p = .000$), outside effort cost scores ($\tau_b = -.41, p = .000$), loss of valued alternatives cost scores ($\tau_b = -.44, p = .000$), and task effort cost scores [$= -.44, p = .000$] (see Table 15).

Research Question Six

Research question six sought to determine how perceived costs differed when compared by students' gender, previous international experience, and first-generation status. The MANOVAs did not produce a statistically significant three-way interaction between gender, previous international experience, and first-generation status, $F(4, 370) = .474, p = .755, \text{Pillai's } \eta^2 = .005, \text{partial } \eta^2 = .005$. No statistically significant two-way interactions were found between students' genders and first-generation status, $F(4, 370) = .220, p = .927, \text{Pillai's } \eta^2 = .002, \text{partial } \eta^2 = .002$, students' genders and previous international experience, $F(4, 370) = .402, p = .807, \text{Pillai's } \eta^2 = .002, \text{partial } \eta^2 = .004$, and students' first-generation status and previous international experience, $F(4, 370) = .700, p = .593, \text{Pillai's } \eta^2 = .008, \text{partial } \eta^2 = .008$, on motivation to enroll in a short-term study abroad course or experience. The MANOVAs did, however, produce a statistically significant main effect of previous international experience, $F(4, 370) = 3.284, p = .012, \text{Pillai's } \eta^2 = .034, \text{partial } \eta^2 = .034$. The main effect of gender on the combined perceived costs variables was not statistically significant, $F(4, 370) = 1.703, p = .149, \text{Pillai's } \eta^2 = .018, \text{partial } \eta^2 = .018$, nor was the main effect of first-generation status statistically significant, $F(4, 370) = .351, p = .843, \text{Pillai's } \eta^2 = .004, \text{partial } \eta^2 = .004$. Post hoc analyses explored how perceived costs differed by previous international experience. Students without previous international experience had statistically significantly higher scores for the following cost domains: emotional cost ($Mdn = 2.67$), $U = 11,776.50, z = -3.810, p = .000, r = -.20$ (see Figure 13), outside effort cost ($Mdn = 3.00$), $U = 13,243.50, z = -2.299, p = .022, r = -.12$ (see Figure 14), loss of valued alternatives cost ($Mdn = 3.00, U = 19,421.00, z = -3.154, p = .002, r = -.16$ (see Figure 15), and task effort cost ($Mdn = 2.33$), $U = 11,741.00, z = -3.860, p = .000, r = -.20$ (see Figure 16).

Research Question Seven

Research question seven sought to predict students' motivation to enroll in a short-term study abroad course or experience using four measures of perceived costs and three selected personal characteristics, i.e., gender, previous international experience, and first-generation status. The multiple regression model statistically significantly predicted motivation, $F(7, 373) = 29.106, p = .000, \text{adj. } R^2 = .341$ (see Table 16). Four of seven variables were useful for predicting motivation: loss of valued alternatives cost, previous international experience, and gender. However, the variables first-generation status, emotional cost, and outside effort cost did not contribute to the multiple regression model (see Table 16).

Conclusions

Based on the findings of this study, five conclusions were made. These conclusions are discussed further below.

1. The PCoSAI is an appropriate tool for measuring students' perceived costs of short-term study abroad course or experience participation.
2. Female students were associated with higher motivation scores regarding their motivation to enroll in a short-term study abroad course or experience when compared to male students. Students with previous international experience were associated with higher motivation scores regarding their motivation to enroll in a short-term study abroad course or experience when compared to students without such experiences.
3. Students had similar motivation scores regardless of their gender for enrolling in short-term study abroad courses or experiences. Students with previous international experience were more motivated to enroll in short-term study abroad courses or experiences when compared to students without international experience. Students had similar motivation scores regardless of first-generation status for enrolling in short-term study abroad courses or experiences.

4. Increasing levels of loss of valued alternatives cost were associated with students who were males. Increasing levels of emotional cost, outside effort cost, loss of valued alternatives cost, and task effort cost were associated with students who did not have previous international experience.
5. Increasing levels of emotional cost, outside effort cost, loss of valued alternatives cost, and task effort cost were associated with lower motivation scores regarding short-term study abroad course or experience enrollment.
6. Students without previous international experience reported higher perceived costs scores, i.e., emotional cost, outside effort cost, loss of valued alternatives cost, and task effort cost, when compared to those who had previous international experience regarding their motivation to enroll in short-term study abroad courses or experiences.
7. Loss of valued alternatives cost scores, gender, task effort cost scores, and previous international experience predicted students' motivation to enroll in short-term study abroad courses or experiences.

Conclusion 1: The PCoSAI is an appropriate tool for measuring students' perceived costs of short-term study abroad course or experience participation.

In this study, we examined how perceived costs items clustered together. This conclusion provided evidence that the operationalization of each of the theorized four sub-dimensions of cost (Shultz et al., 2014) in the context of short-term study abroad courses or experiences was consistent with the EVC model. This finding supports the existence of a multidimensional scale, including four distinct types of cost (Flake et al., 2015). This finding also supports the results of Parsons et al. (1980) who found that cost was subtracted from the overall value a student placed on a particular task or domain (as cited in Flake et al., 2015). This finding supports conclusions made by Barron and Hulleman (2015), Eccles et al. (1983), and Wigfield et al. (2016) who determined that perceived costs affects motivation negatively. This finding supports works done

by Eccles and Wigfield (1995) and Wigfield and Eccles (2000) who confirmed the existence of at least three sub-dimensions of cost as explained in the original expectancy-value model. This finding also supports results by Chen and Liu (2009) regarding the existence of a fourth cost factor. Further, Barron and Hulleman (2015) found that students perceive at least four distinct types of latent costs regarding academic achievement and performance. Flake et al. (2015) who confirmed the existence of four sub-dimensions of cost. The finding supports those reported by Conley (2012) who found that cost correlated negatively to motivation. This finding is consistent with Trautwein et al. (2012) who found that cost correlated negatively to motivation. Finally, this finding supports Luttrell et al. (2010) results who also found an inverse relationship between cost and motivation.

Conclusion 2: Female students were associated with higher motivation scores regarding their motivation to enroll in a short-term study abroad course or experience when compared to male students. Students with previous international experience were associated with higher motivation scores regarding their motivation to enroll in a short-term study abroad course or experience when compared to students without such experiences.

A positive statistically significant association of weak strength was found between students' genders and motivations to enroll in a short-term study abroad course or experience. This indicates that gender explains a very small proportion of the variation in motivation scores. Although there is little variation in motivation scores among the students, females are more likely to report higher motivation scores than males. This conclusion, however, supports those by Loberg (2012) and Posey (2003) who found associations between gender and study abroad participation. This conclusion is also supported by previous literature (Anderson, 2003; Martin & Rohrlich, 1991; Medina-Lopez-Portillo, 2004) that found motivation to study abroad varies by gender. A possible explanation for this association is that perhaps the females within the present study participated in previous international experiences, and they perceive higher value and

expectations for success for such experiences. It is likely there are various other factors that could be used to determine students' motivations to enroll in a short-term study abroad course or experience.

A positive statistically significant association of weak strength also was found between students' previous international experience and their motivations to enroll in a short-term study abroad course or experience. This indicates that students' previous international experiences explain a very small proportion of the variation in motivation scores. Although there is little variation in motivation scores among the students, those with previous international experience tend to be more likely to report higher motivation scores than those without such experience. This conclusion is supported by those McKeown (2009) and Pope et al. (2014) who argued that previous international experience moderated students' decisions to study abroad. A possible explanation for this interaction is that perhaps the students with previous international experience within the present study perceive fewer costs for short-term study abroad course or experience enrollment.

Conclusion 3: Students had similar motivation scores regardless of their gender for enrolling in short-term study abroad courses or experiences. Students with previous international experience were more motivated to enroll in short-term study abroad courses or experiences when compared to students without international experience. Students had similar motivation scores regardless of first-generation status for enrolling in short-term study abroad courses or experiences.

Female students represent nearly three-quarters of education abroad participation annually (IIE, 2017). Research shows that motivation to participate in international experiences varies by gender (Anderson, 2003; Martin & Rohrlach, 1991; Medina-Lopez-Portillo, 2004). Studying abroad seems to be an option chosen mostly by female Caucasians (Ogden, 2015). However, male and female students alike in this study were similarly motivated to enroll in a

short-term study abroad course or experience before graduation. Female participants did not report statistically significantly higher motivation scores than males. This finding refutes previous literature that found females to be more motivated to study abroad than males (Hembroff & Russ, 1993; Goldstein & Kim, 2006; Stroud, 2010) and supports the findings by Relyea et al. (2008). The lack of statistical significance found between males and females in their motivation scores has practical significance. The results suggest that gender does not have an effect on freshmen students' motivations to enroll in a short-term study abroad course or experience. Specifically, the results suggested that incoming freshmen students are equally likely to enroll in a short-term study abroad course or experience regardless of whether they are male or female (see Figure 10).

Nearly one-third of this study's participants reported having previous international experience. Those who had such were more motivated to enroll in a short-term study abroad course or experience than students without. This finding is consistent with Pope et al. (2014) conclusion that previous international experience moderated students' decisions to study abroad as well as Bunch et al. (2013) who found that previous international experience was statistically significantly related to students' decisions to participate in study abroad opportunities. In addition, this finding supported those by Hembroff and Russ (1993) who found a statistically significant influence of previous international experience on students' attitudes and how they changed as a result of such experience. The statistically significant difference found between students with and without previous international experience as measured by the medians of their motivation scores has practical significance. The results suggest that students with previous international experience had higher motivation to enroll in a short-term study abroad course or experience before graduation than students without such experience. Specifically, the results suggest that when incoming freshmen students have previous international experience, their motivation to enroll in a short-term study abroad course or experience before graduation is more likely to be higher.

College generation status was used as a proxy for socio-economic status. The implication was that individuals coming from lower socio-economic status households were more likely to be first-generation students (Relyea et al., 2008). About one-quarter of the participants reported being the first person from their family to attend college. However, first-generation status had no bearing on students' motivation to enroll in a short-term study abroad course or experience. As such, no difference existed between students' college generation status regarding their motivation to enroll in a short-term study abroad course or experience. This finding was consistent with previous research (Murphrey et al., 2016; Relyea et al., 2008; Stroud, 2010). However, when measured directly no clear consensus emerged regarding the effects of socio-economic status and family's median income on study abroad participation (Dessoiff, 2006; Presley et al., 2010; Relya et al., 2008; Salisbury et al., 2009; Stroud, 2010). Because first-generation students' motivation scores were not lower or higher than non-first-generation students, this finding confirms that both groups were similarly motivated to participate. Although discrepancies exist regarding the influence of socio-economic status and family median income on students' education abroad participation, the non-significant finding in this study furthers the discussion on how first-generation status effects motivation and participation differentially. The lack of a statistically significant difference between the levels of first-generation status in motivation scores has practical significance. The results suggest that first-generation status does not have an effect on freshmen students' motivation to enroll in a short-term study abroad course or experience before graduation. Specifically, both first- and non-first-generation, freshmen students are equally likely to be motivated to enroll in a short-term study abroad course or experience before graduation.

Conclusion 4: Increasing levels of loss of valued alternatives cost were associated with students who were males. Increasing levels of emotional cost, outside effort cost, loss of valued alternatives cost, and task effort cost were associated with students who did not have previous international experience.

A negative statistically significant relationship of weak strength was found between students' genders and perceptions of loss of valued alternatives cost regarding short-term study abroad course or experience enrollment. Students who were male perceived higher agreement with the expectation of losing something because of participating in a short-term study abroad course or experience than did students who were female. It was concluded that students' genders explain or account for a statistically significant and negligible proportion of the variation in loss of valued alternatives cost scores. Thus, the measure for gender cannot substitute for the measure for loss of valued alternatives cost. Although there is little variation in motivation scores among the students, males tend to have higher loss of valued alternatives cost scores than females. It is conceivable that these male students are mainly concerned with diverting resources away from other tasks in which they place higher value. This idea is supported by the findings of Relyea et al. (2008) and Sanchez, Fornerino, and Zhang (2006) who asserted that students who are males place lower value on study abroad experience when compared to students who are female. In addition, positive statistically significant relationships of weak strength were found between previous international experience and perceived costs. This notion is supported by previous research conducted by Bunch et al. (2013), Hembroff and Russ (1993), and McKeown (2009) who asserted the existence of an effect of previous international experience on students' attitudes regarding study abroad program participation.

Conclusion 5: Increasing levels of emotional cost, outside effort cost, loss of valued alternatives cost, and task effort cost were associated with lower motivation scores regarding short-term study abroad course or experience enrollment.

Four negative statistically significant and moderately strong relationships were found between students' motivations and perceived costs regarding short-term study abroad course or experience participation. This finding supports those by Andreasan (2003) and Perez et al. (2014) who found that cost factors were strongly associated with students' motivations across academic

domains. This conclusion suggests that students' who report high perceived costs scores are likely to report low motivation scores regarding short-term study abroad course or experience enrollment. Students perceived costs accounted for a large proportion of the variation in motivation scores. It is likely the perceived costs subscales can substitute for the measure of motivation. This conclusion supports the notion that perceived costs factors are useful for understanding the drivers of students' motivations for short-term study abroad course or experience enrollment.

Conclusion 6: Students without previous international experience reported higher perceived costs scores, i.e., emotional cost, outside effort cost, loss of valued alternatives cost, and task effort cost, when compared to those who had previous international experience regarding their motivation to enroll in short-term study abroad courses or experiences.

This study found that students without previous international experiences reported statistically significantly higher perceived costs regarding motivation to enroll in a short-term study abroad course or experience. This finding supports conclusions by Hembroff and Russ (1993) who found students with previous international experience reported statistically significant different attitudes regarding participation in study abroad programs. In general, students with prior experience reported more positive attitudes. This finding also supports conclusions by Bunch et al. (2013) who asserted that geographically isolated students with fewer international experiences perceive higher barriers to participation. However, this finding contradicts Chiang et al. (2011) who found statistically significant differences between males and females regarding perceived costs. This study found no statistically significant effect of gender on perceived costs regarding short-term study abroad course or experience participation. Finally, this finding is congruent with by McKeown (2009) who found a statistically significant effect of previous international experience on students' attitudes regarding study abroad program participation.

Conclusion 7: Loss of valued alternatives cost scores, gender, task effort cost scores, and previous international experience predicted students' motivation to enroll in short-term study abroad courses or experiences.

Loss of valued alternatives cost, gender, task effort cost, and previous international experience were the most powerful predictors of participation in a short-term study abroad course or experience, as based on the results of this study. Emotional cost, outside effort cost, and first-generation status did not statistically significantly affect the probability of a student being motivated to participate. These findings support those by Andreasan (2003) who reported that conflicting class schedules and fear of lost opportunities preclude students from participating in international experiences. The results of this study are also consistent with those of Perez et al. (2014) who found that task effort cost and outside effort cost statistically significantly predicted motivation, as well as Bunch et al. (2013) results who found that international experience and gender statistically significantly predicted motivation to participate in education abroad programs. Finally, the findings are congruent with those stated by Hembroff and Russ (1993) who found that gender and previous international experience statistically significantly predicted whether a student would participate in a study abroad program.

Implications

1. This study offers a cross-sectional glimpse of the influences on students' motivation at the beginning of their college career regarding a specific type of international experience. As such, the results of this study highlight the importance of early-targeted interventions concerning perceived costs. A thread among studies concerned with the relationships between cost and academic choice and performance seems to be how minimizing students' perceptions of costs improves their achievement-related choices and performance. It is likely that perceived costs regarding short-term study abroad course or

experience participation increase as students' progress further into their academic degree programs. The IIE (2017) reported that students are most likely to participate in international experiences during their junior and senior years. Thus, students' perceived costs are expected to be at an all-time high during this period, which might explain the low participation rates highlighted by the IIE (2017).

2. The findings of this study seem to imply that the effects of motivation between males and females are the same regardless of their first generation status and previous international experience. The effects of motivation between those who are first generation and those who are not are the same regardless of their gender and previous experience. Lastly, the effects of motivation between those with and without previous experience are the same regardless of their gender and first generation status.
3. The results of this study seem to support the notion that males perceived similar motivation to enroll in short-term study abroad courses or experiences as females. Yet despite the similarity in motivation between students' genders, more females participate in short-term study abroad courses or experiences than males (IIE, 2017). Perhaps when it comes to actual enrollment, the belief among males is that international experiences are unnecessary to achieve success in their U.S careers (Relyea et al., 2008; Sanchez et al., 2006), or maybe males more than females are involved in time-specific production agriculture during the summer when most short-term study abroad courses or experiences occur. These are important implications to consider as they may impact the makeup of program participants, including future world leaders (Relyea et al., 2008).
4. According to Ogden (2015), the "relationship between previous international travel experience and participation in education abroad remains unclear due to inconsistent empirical findings" (p. 6). Researchers have found that students with previous international experience expressed greater cultural awareness, openness, and independence (Carlson et al., 1990; Hembroff & Russ, 1993, Opper et al., 1990). It seems

likely that reduced expression of perceived costs among students with previous international experience contributed to differences in motivation for enrolling in short-term study abroad course or experiences among participants in this study.

5. The results of this study highlight the importance of understanding how advanced planning and educational initiatives influence participation, such as through the use of scholarships, grants, and loans, because it appears first-generation students were equally motivated to participate as compared to non-first-generation students. The implication being that first-generation students were more likely to come from lower socioeconomic households. It seems likely the first-generation students in this study perceived a short-term study abroad course or experience as a worthwhile exercise, regardless of their financial concerns. However, the coupling of diminishing motivation and growing financial concerns, i.e., perceived costs, could ultimately prevent such students from participating in short-term study abroad courses or experiences. A number of researchers have asserted that motivation for achievement-related choices and performance deteriorates over time (Barron & Hulleman, 2015; Eccles et al., 1983; Wigfield et al., 2016).
6. The overall value students place on short-term study abroad courses or experiences might increase by encouraging them to participate in a simulated domestic international experience, such as Heifer International's Heifer Ranch (Heifer International, 2018). It is possible that creating such experiences for students prior to enrolling at an undergraduate institution might be the answer to reducing views of excessive perceived costs and increasing their level of value and expectation for success. Taken together, the fact that more females have higher participation rates than males and enrollment does not generally occur until students' junior or senior years (IIE, 2017), it may be prudent to understand what motivates females to participate in international experiences before beginning college. Perhaps more internationally oriented middle and high school learning

experiences might change students' perceived costs of participation in education abroad programs.

7. Certain types of perceived costs seem to predict student achievement and performance across academic domains. The findings of this investigation indicated that as study abroad LOVA and task effort cost scores decrease by one unit independently, students' expression of motivation to enroll in short-term study abroad courses or experiences increases. A reduction in perceived study abroad LOVA and task effort cost scores of this magnitude is enough to shift a student's real limit standard from a neutral to a somewhat motivated level of agreement. Such a change could result in that student enrolling in a short-term study abroad course or experience. This interpretation is only true, however, if the effects of gender and previous international experience are held constant. The study abroad LOVA and task effort cost scores reported by the students provided evidence that the instrument used in this study is valid and reliable for measuring this phenomenon. Although outside effort cost and emotional cost variables did not contribute to motivation, this does not mean they are not important. The information they provide might already be accounted for by the other predictors. This means that LOVA cost plays a role that is about three or four times as important as outside effort cost or emotional cost in explaining motivation to enroll in short-term study abroad course or experiences. It seems likely that designing recruitment strategies around students' perceptions of what is lost or given up and the amount of psychological or physical effort they should expect to endure as a result of participation will be useful for increasing the probability that a student will be motivated sufficiently to enroll in a short-term study abroad course or experience. Perhaps targeted interventions can be developed to help students understand these perceived costs better.

Recommendations for Praxis

Based on the results of this study, it is recommended that CASNR officials consider retaining items on the questionnaire regarding first-generation status, emotional cost, and outside effort cost during the freshmen recruitment process because such had much to offer in the context of gender, previous international experience, task effort cost, and LOVA cost. Recognition of these factors may provide administrators, program directors, and faculty with valuable information, such as information about freshmen students' familial background regarding collegiate education, the psychological or emotional effects generated by the idea of traveling internationally, and how competing demands influence students' academic choices. It also must be considered that students may gain valuable insight into their perceptions of cost while answering questions about such factors, which could help students to understand better how to evaluate whether a short-term study abroad course or experience is right for them.

Based on the findings of this study, the following recommendations for praxis were made for faculty and administrators in colleges of agriculture:

1. The PCoSAI is useful for understanding how students perceive internal and external demands about participation in short-term study abroad courses or experiences and offers insight into factors that preclude participation for institutions with International Strategic Plans in place. The instrument employed in this study should be used by course administrators, faculty, and coordinators/directors of international programs as a tool for planning, promoting, and recruiting students for short-term study abroad courses or experiences. The tool can help create programs and shape advising efforts in at least two ways: 1) it can provide guidance on how to develop targeted interventions to help students overcome perceived costs so more students participate, and 2) identify students early in their college career who have a desire to study abroad, so they can connect with faculty and begin preparing for the experience.

2. Recruiters and administrators should encourage female students with previous international experience to share their experiences with other students. Perhaps this means establishing a panel of students with previous international experiences who convene to share their insight.
3. Because this study found that gender and previous international experiences effect students' motivation to participate in a short-term study abroad course or experience sometime during their undergraduate program, early student recruitment and advanced planning by CASNR faculty and administrators are recommended before students enroll in the college or university. Using first-generation status as a proxy for socio-economic status, recruitment strategies ought to emphasize grant and scholarship opportunities to first-generation college students. Although students' college generation status seemingly had no effect on student motivation, first-generation college students are an underrepresented group among education abroad participants (Relyea et al., 2008).
4. Students who had previous international experiences prior to college were more motivated to enroll in a short-term study abroad course or experience. International experiences should be factored into middle and high school agricultural and natural resources related programs. Although this study identified previous international experience as *physically leaving the U.S.*, no clear consensus existed on how other types of international experiences, such as international service-learning, research abroad, and international internships, influence motivation while giving consideration for perceived costs of such participation.
5. Understanding how conceptions of perceived costs differ between males and females might be useful for understanding how internal and external forces influence genders differently. Such knowledge should be used to guide early student recruitment and planning strategies for increasing participation among short-term study abroad courses or experiences among male students.

6. Students with previous international experience perceived less outside effort cost, LOVA cost, task effort cost, and emotional cost. Because LOVA cost and task effort cost are useful for predicting motivation to participate in short-term study abroad courses or experiences, faculty and administrators should develop educational interventions to reduce students' perceptions of what is forfeited or lost and the amount of time and effort needed if participating in such learning experiences. These interventions ought to include a panel of students with previous international experiences to share their views on LOVA and task effort costs regarding such with other students. This study operationalized international experience as physically leaving the U.S. However, other researchers (Bunch et al., 2013) identified numerous international experiences that might be useful for helping students understand their perceptions of loss of valued alternatives cost and task effort cost.
7. International experience opportunities should be expanded for middle and high school students. Whether this experience should be provided through an agricultural or natural resources related program is unclear. What is clear is that students with previous international experience perceived costs and motivation regarding short-term study abroad course or experiences differently. Students with previous international experience reported lower perceived costs and higher motivation to enroll in short-term study abroad courses or experiences than students without previous experience.
8. Encourage students with previous international experience to enroll in more *advanced* education abroad opportunities, such as international service-learning or semester or year-long programs. Because these individuals were more motivated to travel abroad again, it seems likely they would benefit from an experience requiring higher cognitive function, such as developing and leading a hygiene or sanitation educational workshop for individuals living in rural and isolated conditions without running water or electricity.

Recommendations for Future Research

Based on the findings of this study, twelve recommendations for future research were made for faculty and administrators in colleges of agriculture. Figure 26 illustrates relationships between the findings of this study and recommendations for future research.

1. This study should be replicated at other institutions that offer international learning experiences for students. Only one group of students at a single institution was assessed in the current study. Before any broad sweeping recommendations are made, data from other institutions should be analyzed to either support or refute the findings of this study.
2. Further instrument testing, refinement, and verification.
3. Identify existing pre-college youth programs that could provide international learning experiences for students.
4. Examine how various previous international experiences (Bunch et al., 2013) influence students' views on perceived costs.
5. Examine what an international learning experience for middle and high school students should entail.
6. Identify the factors that influenced students with previous international experience to participate in short-term study abroad courses or experiences.
7. Identify the unintended consequences, whether desirable or undesirable, associated with encouraging students to participate in international learning experiences before enrolling in a 4-year college or university program.
8. Determine whether differences in participation exist between middle school, high school, and college students regarding perceived costs and international experience participation.
9. Examine how perceived costs related to participating in an international learning experience may change longitudinally.

10. Determine how moderating the effects of perceived costs regarding short-term study abroad course or experience participation impacts students' enrollment in such.
11. Determine whether students with previous international experience are more inclined to enroll in other international experience types or mobility modes.
12. Create an early student planning and recruitment framework that incorporates students' perceived costs and previous international experiences.

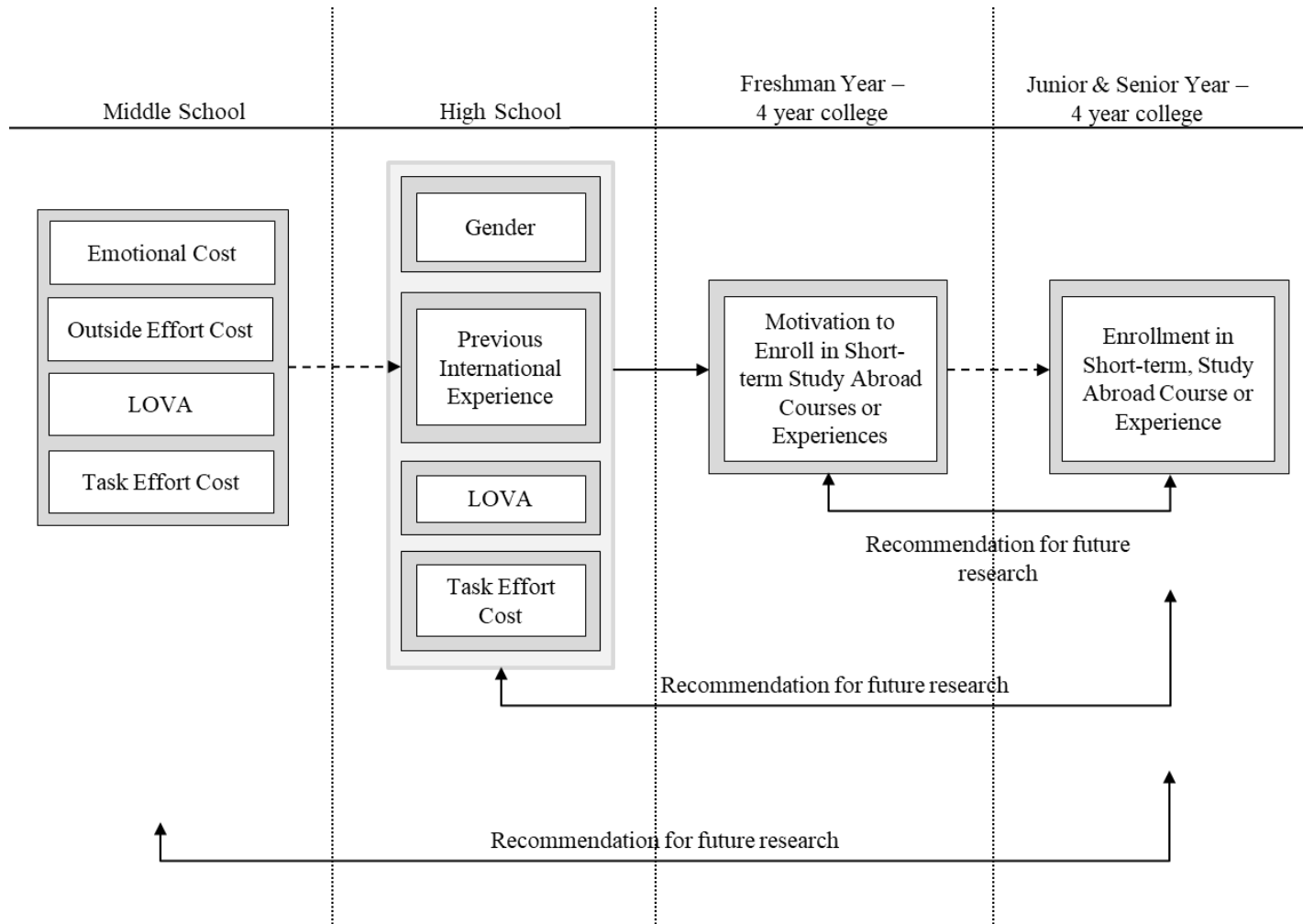


Figure 26. Recommendations for future research.

Discussion

International experiences, such as short-term study abroad courses or experiences, when planned and executed properly, supplement undergraduate studies by providing students with opportunities for the development of global competence and intercultural communications skills (Deardorff, 2006; Doerr, 2013; Kuh, 2008). Participation rates among agricultural majors are at historical all-time lows when compared to degree programs offered by other colleges (IIE, 2017). As shared by Raczkoski et al. (2018), international programs coordinators and administrators of academic affairs are poised to benefit from the exploration of perceived costs as they relate to students' participation in international education courses. As the world becomes increasingly globalized, especially in the agricultural and natural resources sectors, the U.S. will need a globally literate workforce for the sake of its national security and economic well-being.

For these reasons, leaders in agriculture and its allied sectors must commit to supporting initiatives aimed at extending further the international experiences for students before they enroll in college or university programs. Through this research, empirical evidence on four types of latent costs that might prevent students from participating in such was provided. Two of these costs, LOVA and task effort, statistically significantly predicted students' motivations to enroll in a short-term study abroad course or experience. If U.S. institutions of higher education are to achieve their goals of having up to one-half of all undergraduate students participate in some type of international learning experience (Estes et al., 2016), the results of this study point identify two perceived costs (Barron & Hulleman, 2015) as substantial prohibitors to their enrollment. This study extends current research into this line of inquiry and provides strong evidence that negative perceptions of participation can be understood as what students view as losing or giving up and the amount of psychological or physical effort they anticipate exerting as a result of studying abroad.

The low participation rates in education abroad programs for U.S. students in agriculture is a direct threat to the viability of the food, fiber, and natural resources sectors, as it means an entire generation of agricultural professionals may be unprepared for the challenges they may face in an increasingly globalized workforce (NAFSA, 2006). Moreover, without education abroad, students in colleges of agriculture risk losing out on personal and professional opportunities to individuals who have acquired the requisite skills through such an experience. The instrument used in this study is a tool that can be used to help understand the influence of perceived costs on students' motivation concerning their participation in a short-term study abroad course or experience. It provides a starting point where researchers, faculty, and administrators can begin addressing or removing these perceived barriers earlier in students' educational careers so that participation will increase – an outcome that has important benefits for students and universities alike (OSU Annual Report, 2015–2016).

However, the findings of this study emphasized the importance of students gaining international experience before enrolling in U.S. institutions of higher education. These findings provided guidance on how students with such previous international experiences reported statistically significantly lower perceived costs scores concerning participation in short-term study abroad courses or experiences. In other words, students with previous international experience reported lower perceived costs and higher motivation to study abroad. If participation rates among these groups are to increase, the results of this study suggest the first step might be providing international experiences for students earlier in their education careers. Specifically, the findings of this study point to overcoming forecasted negative perceptions of that which students expect to lose and the amount of physical or mental effort a student expects to exert during a short-term study abroad course or experience. If negating the effects of costs on expectancy and value is achievable, it is likely that increased participation rates “could have important

implications on the makeup of future study abroad participants and international leaders” (Relyea et al., 2008, p. 358).

As such, renewed vigor ought to be made regarding aid and assistance efforts toward assisting youth in achieving their missions. Yet, despite such efforts, a number of U.S. students fail to get involved. Participation rates among males and underrepresented groups in the U.S. are mostly in decline regarding education abroad (Relyea et al., 2008). Organizations, such as the Young Men’s Christian Association (YMCA) provide international experiences for alternative and underrepresented youth groups. They offer programs for students to destinations such as Cambodia, Siberia, and Nepal (World YMCA, 2018). The results of this study highlight how transformational an international learning experience, such as those offered by the World YMCA, can be for middle and high school students, including the positive long-term effects it can have on decision-making.

The benefits of international learning experiences have been documented extensively (Anderson et al., 2015; Andreasen, 2003; Bunch et al., 2015; Bunch et al., 2013; Carlson & Widaman, 1988; Chang et al., 2013; Clark et al., 2009; Danjean et al., 2015; Estes et al., 2016; Goldstein & Kim, 2006; Harder et al., 2015; Kitsantas, 2004; Place et al., 2004) and hold important implications for participants regarding future decisions and career choices. It is crucial for organizations, such as 4-H, FFA, and YMCA, to continue providing international learning experiences for youths. These organizations offer underrepresented groups the opportunity to challenge closely held value and belief systems, thus, helping them to overcome perceived obstacles and invalid mental models.

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APPENDICES

APPENDIX A
INSTRUMENT

2017 CASNR International Programs Student Survey

You have been asked to participate in a study to determine your perceived barriers to participating in a short-term study abroad course or experience. IRB protocol AG-17-44 was approved for this study from the Oklahoma State University review committee. Your completion of the survey represents your implied consent to participate in this study. All records will be anonymous. This survey should take no longer than 10 minutes. If you have questions or concerns about this study, you may contact Brandon Raczkoski at (405) 744-3459 or by email at brandon.raczkoski@okstate.edu.

I. Motivation

The following statements aim to understand your overall motivation/intention for future participation in a short-term study abroad course or experience. Please circle the number that best indicates your opinion, from completely disagree (1) to completely agree (5).

Motivation:	Completely Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Completely Agree
I am motivated to enroll in a short-term study abroad course or experience before graduation.	1	2	3	4	5
I intend on participating in a short-term study abroad course or experience before I graduate.	1	2	3	4	5
I will be motivated to enroll in a short-term study abroad course or experience before graduation.	1	2	3	4	5

II. PERCEIVED COSTS

The following statements aim to understand costs associated with participating in a short-term study abroad course or experience. Please circle the number that best indicates your opinion, from completely disagree (1) to completely agree (5).

	Completely Disagree	Somewhat Agree	Neither	Somewhat Agree	Completely Agree
Perceived Costs:					
I will be so busy with other courses or experiences that I will not have the time for a short-term study abroad course or experience.	1	2	3	4	5
A short-term study abroad course or experience will be too stressful.	1	2	3	4	5
A short-term study abroad course or experience will prevent me from spending time doing other things I like.	1	2	3	4	5
I will have so many responsibilities that I am unable to put forth the effort that is necessary for a short-term study abroad course or experience.	1	2	3	4	5
Enrolling a short-term study abroad course or experience will cause me to miss out on too many other things I care about.	1	2	3	4	5
Because of other things I do, I will not have time to put into a short-term study abroad course or experience.	1	2	3	4	5
A short-term study abroad course or experience will require me to give up too many other activities I value.	1	2	3	4	5
I will not spend as much time doing the other things that I would like because of a short-term study abroad course or experience.	1	2	3	4	5
A short-term study abroad course or experience will be too exhausting.	1	2	3	4	5
Because of all the other demands on my time, I will not be able to enroll in a short-term study, abroad course or experience.	1	2	3	4	5
A short-term study abroad course or experience will be too much work.	1	2	3	4	5
I will have so many other commitments that I cannot put forth the effort needed for a short-term study abroad course or experience.	1	2	3	4	5
I will have to sacrifice too much to be in a short-term study abroad course or experience.	1	2	3	4	5
A short-term study abroad course or experience will demand too much of my time	1	2	3	4	5

	Completely Disagree	Somewhat Agree	Neither	Somewhat Agree	Completely Agree
Perceived Costs:					
I will have to put too much energy into a short-term study abroad course or experience.	1	2	3	4	5
A short-term study abroad course or experience will be too long.	1	2	3	4	5
A short-term study abroad course or experience will require too much effort.	1	2	3	4	5
Considering a short-term study abroad course or experience makes me feel too anxious.	1	2	3	4	5
A short-term study abroad course or experience will be emotionally draining.	1	2	3	4	5
I will worry too much about a short-term study abroad course or experience.	1	2	3	4	5

III. PERSONAL CHARACTERISTICS

1. What is your gender?

- Male Female Different Identity:

2. Are you a first-generation college student, i.e., neither of your parents have a college degree?

- Yes No

3. Do you have previous international experience? (Physically left the U.S.)

- Yes No

4. Which types of international experience are you most interested? (select any that apply)

- | | |
|---|--|
| <input type="checkbox"/> Short-term study Abroad Course or Experience | <input type="checkbox"/> International Internship |
| <input type="checkbox"/> International Exchange (one to two semesters abroad) | <input type="checkbox"/> International Independent Study |
| | <input type="checkbox"/> International Research |

5. How long would you like the international experience to be? (select any that apply)

- | | |
|---|--|
| <input type="checkbox"/> 1 week or less | <input type="checkbox"/> 7-12 weeks |
| <input type="checkbox"/> 2-3 weeks | <input type="checkbox"/> One Semester |
| <input type="checkbox"/> 4-6 weeks | <input type="checkbox"/> Two semesters or more |

6. When would you like to have an IE experience? (select any that apply)

- | | |
|--|---|
| <input type="checkbox"/> During Fall Semester | <input type="checkbox"/> During Summer Session I |
| <input type="checkbox"/> During December/January
Intersession | <input type="checkbox"/> During Summer Session II |
| <input type="checkbox"/> During Spring Semester | <input type="checkbox"/> During August Intersession |
| <input type="checkbox"/> During Spring Break | |

Thank you for your participation!

APPENDIX B
IRB APPROVAL LETTER

Oklahoma State University Institutional Review Board

Date: Friday, August 18, 2017
IRB Application No AG1744
Proposal Title: College Students' Appraisals of Relative Cost in the Context of Short-Term Study Abroad Courses

Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 8/17/2020

Principal Investigator(s):

Brandon Raczkoski	J. Shane Robinson
	457 Ag Hall
Stillwater, OK 74078	Stillwater, OK 74078


The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

- The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms.
2. Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Scott Hall (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,

Hugh Crethar, Chair
Institutional Review Board

APPENDIX C
INFORMED CONSENT SHEET

CONSENT FORM FOR STUDENTS PAPER-BASED SURVEY

**PARTICIPANT INFORMATION
OKLAHOMA STATE UNIVERSITY**

Title: College Students' Appraisals of Relative Cost in the Context of Short-Term Study Abroad Courses

Investigator(s): Brandon M. Raczkoski and J. Shane Robinson, Ph.D.

Purpose: The purpose of this study is to determine the extent to which freshman and transfer students in the College of Agricultural Sciences and Natural Resources at Oklahoma State University perceive the notion of participating in a short-term study abroad course prior to graduating.

What to Expect: This research study is administered in person. Participation in this research will involve completion of a paper-based survey. The survey will ask for your name and email address and questions about your perceptions of short-term study abroad programs. You may skip any question(s) that you do not wish to answer. You will be expected to complete the survey once. It should take you about 10 minutes to complete.

Risks: There are no risks associated with this project which are expected to be greater than those ordinarily encountered in daily life.

Benefits: There are no direct benefits to you. However, you may gain an appreciation and understanding of how research is conducted.

Compensation: Students who wish to include their name and email address will be awarded 10 points extra credit in AG 1011. An alternative extra-credit assignment – a worksheet on undergraduate research opportunities is available for those who choose not to complete the paper-based survey.

Your Rights and Confidentiality: Your participation in this research is voluntary. There is no penalty for refusal to participate, and you are free to withdraw your consent and participation in this project at any time.

Confidentiality: The records of this study will be kept private. Answers to questions are confidential. Any written results will discuss group findings and will not include information that will identify you. Research records will be stored on a password protected computer in a locked office and only researchers and individuals responsible for research oversight will have access to the records. Data will be destroyed four years after the study has been completed.

Contacts: You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: J. Shane Robinson, Ph.D., 304B POI Bld., Department of



Agricultural Education, Communications & Leadership, Oklahoma State University, Stillwater, OK 74078, or Brandon M. Raczkoski, 304C PIO Bld., Department of Agricultural Education, Communications & Leadership, Oklahoma State University, Stillwater, OK 74078. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

If you choose to participate: Returning your completed survey in the envelope provided indicates your willingness to participate in this research study.



VITA

Brandon M. Raczkoski

Candidate for the Degree of

Doctor of Philosophy

Thesis: EXAMINING PREDICTORS OF STUDENT MOTIVATION TO ENROLL IN
A STUDY ABROAD COURSE FROM A RELATIVE COSTS
PERSPECTIVE

Major Field: Agricultural Education

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Agricultural Education at Oklahoma State University, Stillwater, Oklahoma in July, 2018.

Completed the requirements for the Master of Science in International Agriculture at Oklahoma State University, Stillwater, Oklahoma in 2015.

Completed the requirements for the Bachelor of Science in Forest Resources and Conservation at University of Florida, Gainesville, Florida in 2009.

Experience:

Curriculum and Assessment Manager, Center for Veterinary Health Sciences, Oklahoma State University, 2018 – Current.

Graduate Research Associate, Institute for Teaching and Learning Excellence, Oklahoma State University, 2015 – 2018.

Graduate Research Assistant, Department of Agricultural Economics, Oklahoma State University, 2014 – 2015.

Peace Corps Volunteer, U.S. Department of State, Peace Corps – Republic of Zambia, 2011 – 2013.