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International Interests and Psychological Well-Being Following Global Service Learning as a Function of Sociocultural Adaptation and Cultural Distance

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International Interests and Psychological Well-Being Following Global Service Learning

as a Function of Sociocultural Adaptation and Cultural Distance

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Abstract

Elizabeth C. Dykhouse (349 words)

International immersion learning experiences intend to increase students' awareness and understanding of the world and other cultures. However, empirical support for global learning and psychosocial outcomes is mixed. Using hierarchical linear modeling, this study examined the longitudinal trajectories of a global learning outcome (international interests; AGLII; Musil, 2006) and a psychosocial outcome (psychological well-being; MHI; Veit & Ware, 1983) for students ($N = 147$; 87% female; 72% Caucasian) who participated in a short-term (13 to 62 days) global service learning immersion to one of 15 countries (Brazil, Cambodia, China, Dominican Republic, Guatemala, Haiti, India, Indonesia, Malawi, Russia, Rwanda, Thailand, Uganda, Ukraine, or Vietnam). Global service learning is a specific type of international immersion learning focused not on language acquisition, necessarily, but rather on integrating travel and community service. Additionally, this study focused on examining the moderating effects of sociocultural adaptation (SCAS; Ward & Kennedy, 1999) and cultural distance (estimated using the Gini coefficient, an economic measure of income inequality within a country; The World Bank Group, 2014) on outcome trajectories. Survey data was collected from participants at pre-departure and at 2 weeks, 6 weeks, 3 months, 6 months, 9 months, and 12 months after return. No significant longitudinal trajectory was indicated for international interests, while a significant cubic function was indicated for psychological well-being ($\beta_{10} = -.376$, $p < .001$; $\beta_{20} = .062$, $p < .001$; $\beta_{30} = -.003$, $p = .002$). For both outcomes, pre-departure scores significantly impacted intercept (AGLII, $\beta_{03} = .564$, $p < .001$; MHI, $\beta_{01} = .527$, $p < .001$). Sociocultural adaptation significantly moderated the curvilinear

trajectory of psychological well-being ($\beta_{11} = .074$, $p = .004$; $\beta_{21} = -.006$, $p = .007$).

Cultural distance had no significant impact on either outcome; the Gini coefficient may

not be a sufficient indicator of cultural distance. Expected growth in global learning

outcomes was not demonstrated by these findings; accurate measurement may have been

an issue and should be a focus of future research. These findings support the wide-spread

notion of re-entry friction; future research should aim to replicated these findings with

other types of international immersion learning programs.

CHAPTER I

Introduction and Literature Review

As a result of increased ease and desire for immigration and travel as well as technological advances, people of diverse and different cultural backgrounds are interacting and living together with more and more frequency. Berry (1997) wrote that three major factors contributed to this increase in a "culturally plural" society: voluntariness of interaction, mobility of groups, and permanence of the interaction (p. 8). Some individuals engage more with other cultures by voluntarily seeking out contact with individuals from different cultural backgrounds (e.g., immigrants, sojourners), while others experience this contact involuntarily, either through forced movement to a new culture (e.g., refugees) or having a new culture brought to them (e.g., indigenous populations). For some individuals, this contact is a permanent lifestyle change (e.g., immigrants, refugees) while for others, the interaction is temporary (e.g., sojourners, international students). Because these scenarios for cross-cultural interaction are so varied and so increasingly prevalent, a need exists for global citizens with greater intercultural competency and sensitivity who appreciate and seek out greater understanding of other cultures, particularly the roles that ethnicity, religion, power, history, and so forth, play in culture and international relations (Braskamp, Braskamp, & Merrill, 2009). The pluralization of society and subsequent need for greater cultural understanding has led to an increase in those individuals who voluntarily seek out temporary interaction with other cultures. One specific example of this increase is students who participate in international immersion learning experiences.

Students are increasingly spending time abroad as a part of their educational experience. While international immersion learning programs vary in terms of duration, structure, and academic purpose, they share a common goal: to be a positive experience that increases awareness and understanding of the world and other cultures. Qualitatively, previous research has established that individuals who participate in study abroad frequently endorse these outcomes and cite the importance of their time abroad in their personal and professional development (e.g., Levine, 2009). However, quantitative research support is divided in terms of global learning and psychosocial outcomes (e.g, Alreshoud & Koeske, 1997; Bennett, 2012). The purpose of this study was to add to the understanding of why students report varying levels of outcomes as a result of their experiences. Specifically, this study examined the global learning outcome of international interests (the willingness and ability to understand global issues from diverse cultural perspectives; Musil, 2006) and the psychosocial outcome of psychological well-being (positive mental health states; Veit & Ware, 1983). Two separate models were examined with each of these outcomes as a dependent variable.

Many factors likely contribute to the diversity of students' experiences, including their sociocultural adaptation while abroad. For example, difficulty adapting to a new cultural environment may make the achievement of the desired outcomes more difficult. Additionally, the distance between host and home culture may impact students' ability to adapt; travel to countries with different values and norms than the home country may be associated with increased difficulty with adaptation. Therefore, I hypothesized that students' international interests would increase over time as a result of the international experience and that sociocultural adaptation would mediate this change. That is, higher

levels of international interests at pre-departure would predict greater sociocultural

adaptation, resulting in greater gains in international interests. Additionally, I

hypothesized that sociocultural adaptation would impact change in students'

psychological well-being over time such that lower psychological well-being would

predict greater difficulty with sociocultural adaptation and, thus, lower psychological

well-being upon return. Finally, I hypothesized that cultural distance (differences in

norms and values between countries) would intensify these effects such that travel to

more culturally distant countries would increase sociocultural adaptation challenges.

Importance of Study Abroad

Many researchers have noted the important role that colleges and universities play

in the development of culturally competent, global citizens (e.g., Braskamp & Engberg,

2011; Braskamp et al., 2009; Carlson & Widaman, 1988; Donnelly-Smith, 2009). As a

part of higher education, international immersion experiences provide students with

unique opportunities to consider their place as a part of a greater whole; to engage with

others from different cultural backgrounds; and to develop greater intercultural

competence, maturity, and sensitivity. As Carlson and Widaman (1988) wrote, the goal

of such experiences is "to help students develop the skills and attitudes which will allow

them to function successfully in an interdependent and interconnected world" (p. 1).

International immersion learning has become increasingly popular for college students in

the United States; the number of students enrolled in study abroad experiences has more

than tripled over the past two decades (Institute of International Education, 2011).

As study abroad programs continue to increase in popularity, institutions are

expanding the types of international immersion learning offerings. That is, students have

a wider variety of trips to choose from in terms of length of stay, focus of travel, country

visited, and so forth. Shorter trips and travel to nontraditional locations in particular are

becoming increasingly popular (Donnelly-Smith, 2009; Wells, 2006). Engle and Engle

(2003) pointed out that with this increased diversity, not all trips can be equated: a short-

term trip requiring no language proficiency will provide a very different experience than

a full year in a language immersion program. For this reason, these authors developed a

classification system for trip type based on trip duration, level of language proficiency

before and during immersion, type of academic focus, housing, opportunities for cultural

interaction, and provisions for reflecting on the experience. Based on this system, they

identified five levels: Level One, or the Study Tour; Level Two, Short-Term Study; Level

Three, Cross-Cultural Contact Program; Level Four, Cross-Cultural Encounter Program;

and Level Five, Cross-Cultural Immersion Program (Engle & Engle, 2003). In my study,

the international immersion learning program of focus was a short-term, faith-based,

service learning immersion called SPRINT (Seattle Pacific Reachout International).

Classification of the SPRINT program within Engle and Engle's (2003) system is

difficult as language instruction is assumed at all levels and SPRINT has no language

proficiency component. Nevertheless, SPRINT best fits at Level Two, Short-Term

Study, which is described as three to eight weeks of study that may include a home stay

visit and "allows students a first exposure to language and civilization in its cultural

setting" (Engle & Engle, 2003, p. 11). While this classification system has its flaws—

namely, its assumption that all international immersion learning is focused on language

acquisition—its development highlights the importance of delineating between different

types of study abroad programs and their various goals and outcomes.

With this increased popularity and diversity of programs comes a need for program administrators and international immersion learning researchers to identify factors that make for a positive and successful experience. Participation alone is not enough for students to demonstrate desired outcomes. These discrepancies may be due to many factors, including, but not limited to, lack of appropriate preparation (Paige, Cohen, & Shively, 2004), limited interaction and engagement with the host culture while abroad (Williams, 2005), and insufficient opportunity for reflection on the experience (Donnelly-Smith, 2009). Haynes (2011) identified six important factors for successful study abroad programs: (a) some measure of outcomes to determine if expected and desired goals have been met, (b) a diverse offering of programs, (c) accessibility for all students, (d) integration with curriculum, (e) some kind of meaningful engagement with the host culture, and (f) opportunities for critical reflection about the experience.

While the research examines the experience of individuals who participate in all types of study abroad, this review will focus on two specific features relevant for my study: short-term travel and service learning oriented trips.

Short-term study abroad. As international immersion learning becomes increasingly popular, short-term programs (i.e., duration of eight or fewer weeks) have become the most common types of programs. There are several reasons why this phenomenon has occurred: short-term programs are typically less expensive, they appeal to students unable or unwilling to travel for a full semester or year, and students in structured fields of study (e.g., engineering, nursing, education) are still able to experience international immersion learning (Donnelly-Smith, 2009). This surge in popularity raises the question of whether or not short-term programs result in the same

outcomes as longer programs. Some scholars have questioned the utility and

effectiveness of shorter programs (e.g., Day, 1987; Kehl & Morris, 2008) and highlighted

the importance of long-term interaction for cultural gains (Carlson & Widaman, 1988;

Grieve, 2015). For example, students traveling for shorter durations may have less

contact with hosts, a vacation mentality, an isolating group mentality, and/or lack of

language proficiency (Day, 1987). These factors may lead to an inability to achieve

desired goals of international immersion. Therefore, researchers should continue to focus

on the effectiveness of short-term programs and the differences between short- and long-

term programs in terms of outcomes (Allen, Dristas, & Mills, 2006; Kehl & Morris,

2008).

Researchers have demonstrated variable conclusions on the effectiveness of short-

term international immersion learning. Some research found significant differences in

students' global mindedness in groups who participated in a short-term trip versus those

who participated in a semester-long program; students who studied abroad longer showed

greater gains in global mindedness (Kehl & Morris, 2008). Other studies have given

evidence that study abroad outcomes are not dependent on trip length (Paige, Fry,

Stallman, Josić, & Jon, 2009) and that positive benefits experienced after a short

immersion may persist years later (e.g., Caldwell & Purtzer, 2015; Smith & Curry, 2011).

Length of time abroad may be associated with changes in cultural and ethnic identity but

have no impact on students' cultural adaptation (Hamad & Lee, 2013). Clearly,

researchers have demonstrated that positive benefits experienced by students studying

abroad persist years later, regardless of trip length; both short-term (e.g., Carley, Stuart,

& Dailey, 2011; Smith & Curry, 2011) and long-term (e.g., Dwyer, 2004) experiences

can result in positive growth. Furthermore, the benefits of short-term study abroad may

lie in the development of interest in further international experiences. Within their

previously mentioned classification system, Engle and Engle (2003) argued that short-

term study abroad is useful and important because it exposes students to a language,

culture, and civilization different from their own, perhaps for the first time, and may

encourage future longer and more in-depth international immersion experiences. As

short-term trips gain popularity, their role in students' global development should

continue to be examined and documented.

      Global service learning and short-term missions. Global service learning trips

are a specific type of short-term study abroad focused not on language acquisition,

necessarily, but rather on integrating travel and community service. Short-term mission

trips are global service learning trips with an added religious component. These types of

trips have seen a rapid growth in popularity in recent years (Peterson, 2006; Ver Beek,

2006), making their inclusion in the literature and research important. Like any

international immersion learning experience, global service learning programs seek to

promote students' global and cultural awareness, intercultural understanding, and global

citizenship. Advocates for global service learning have argued that these programs'

unique integration of international travel, education, and community service allows for

greater achievement of these goals (Crabtree, 2008).

      Global service learning trips have not escaped criticism, however. First of all,

these types of trips tend to be shorter and so face many of the criticisms of short-term

trips outlined previously (e.g., less contact with hosts, a vacation mentality, an isolating

group mentality, and/or lack of language proficiency [Day, 1987]). Second, the role of

students' privilege and wealth has been criticized; Crabtree (2008) wrote, "Local children become enamored with the foreign students and the material possessions they take for granted…[while] students return to pursue courses of study and careers with little apparent divergence from the path of/toward privilege" (p. 18). Third, these types of trips struggle with whether the focus of development is on the *student* who is traveling or the *community* to which they are traveling; while students who travel on short-term mission trips may benefit, the community they visit may not (Caldwell & Purtzer, 2015; Cruz & Giles, 2000). Reciprocity should be a focus of such trips but is not always achieved (Crabtree, 2008).

Nevertheless, several studies have found support for the effectiveness and utility of global service learning and short-term mission trips. For example, Bergman, Yamamoto, Forman, and Bikos's (2012) longitudinal study found that students participating in short-term missions actually experienced statistically significantly greater gains in global learning outcomes than those who participated in traditional study abroad. Other studies have shown that students demonstrate increased participation in civic activities (Beyerlein, Trinitapoli, & Adler, 2011) and increased cultural competence (Harrowing, Gregory, O'Sullivan, Lee, & Doolittle, 2012). Short-term missions may have a particularly strong effect on the development of students' religious attitudes and engagement (Trinitapoli & Vaisey, 2009).   Furthermore, Campbell and colleagues (2009) suggested that an additional benefit of short-term missions may be a reduction in burnout due to the shorter duration of the experience.

Goals and Outcomes of Study Abroad

As international immersion learning and study abroad continue to grow in popularity and variety, the question of the goals and aims of such experiences must be addressed. Researchers seem to agree that study abroad experiences are a useful way for colleges and universities to promote holistic and global growth in their students (e.g., Allen et al., 2006; Bergman et al., 2012; Bochner, Lin, & McLeod, 1980; Braskamp et al., 2009; Carlson & Widaman, 1988; Douglas & Jones-Rikkers, 2001; Engberg and Fox, 2011; Jackson, 2009; Musil, 2006; Paige et al., 2009; Smith & Curry, 2011; Wells, 2006; Wielkiewicz & Turkowski, 2010; Yamamoto et al., 2012a; Yamamoto et al., 2012b). Study abroad experiences seek to provide students with an opportunity to experience "the emotional and intellectual challenge of direct, authentic cultural encounters and guided reflection upon those encounters" (Engle & Engle, 2003, p. 6). Furthermore, the opportunities for "'life-changing' experiences make it necessary, even critically important, that students live and learn in cultures other than their own" (Levine, 2009, p. 156). American students may be particularly in need of these experiences as their understanding of the world is markedly minimal. According to the 2006 U.S. Senate resolution (as cited in Haynes, 2011, p. 17), "[Eighty-seven percent] of students in the United States between the ages of 18 and 24 cannot locate Iraq on a world map, 83% cannot find Afghanistan, 58% cannot find Japan, and 11% cannot even find the United States." Study abroad should enhance students' understanding of the world and themselves while increasing their competency in interacting with diverse others.

International interests and global learning outcomes. One of the traditional goals of study abroad or other international immersion learning experiences is an increase

in students' international interests. This outcome is defined as the willingness and ability to understand global issues from diverse cultural perspectives as evidenced by, for example, an increased desire to discuss causes of global poverty or an increased awareness of race relations (Musil, 2006). These programs expect to foster international interest and engagement within their students. Although this outcome is one of the most consistently demonstrated in the literature, not all students experience this growth. Students returning from international immersion experiences may experience increases in global learning outcomes, such as awareness and knowledge of other cultures and cultural differences, interest in and desire for continued international exposure, and overall global mindedness, while others may experience no change or decreases in these domains.

Much research has provided evidence that students who study abroad return with a greater awareness of the degree of cultural diversity in the world as well as greater knowledge about cultures different from their own. Braskamp and Engberg (2011) reported findings from the Global Perspective Inventory (GPI; Merrill, Braskamp, & Braskamp, 2012) given to 5,352 students attending one of 46 different colleges during the 2009–10 academic year. In this study, students' knowledge about different cultures increased significantly following study abroad; these changes were most apparent in their knowledge and understanding of cultural differences. In Levine's (2009) qualitative study, participants who had studied abroad for 6 to 9 weeks as nursing students acknowledged a greater awareness of cultural differences up to 13 years after their immersion. For example, they endorsed changes including depth of compassion and acceptance of differences. Levine (2009) posited that exposure to other cultures

instigated these changes. Other researchers have also argued for and presented findings in support of this idea that cross-cultural contact can have an impact on students' knowledge and attitudes (e.g., Bennett, 2012; Crabtree, 2008). Alreshoud and Koeske's (1997) study with Arab students studying in the United States found that increased social contact was associated with greater knowledge of American culture; Bateman (2002) found that students who experienced cross-cultural contact in the form of ethnographic interviews with Spanish-speakers reported more favorable attitudes toward Hispanic individuals; and Hamad and Lee (2013) found that increased willingness to communicate with individuals from the host culture was related to greater intercultural communication competence. Participation in international immersion experiences has been shown to reduce prejudiced and ethnocentric beliefs and enhance intercultural understanding (Paige et al., 2009).

Furthermore, researchers have suggested that cross-cultural contact not only influences students' attitudes and awareness upon return but also their desire for and interest in continued exposure to international affairs. Increases in international interests are an expected result of study abroad and have been observed in many studies (e.g., Bergman et al., 2012; Carley et al., 2011; Carlson & Widaman, 1988; Jackson, 2009; Levine, 2009; Musil, 2006; Smith & Curry, 2011). Musil (2006) reported that students' interest in global engagement increased as a function of studying abroad, and Smith and Curry (2011) reported that positive benefits experienced by nursing students after a short immersion in Ecuador persisted years later. Moreover, Bergman and colleagues (2012) reported qualitative findings that students endorsed increased interest in remaining involved in and knowledgeable of international affairs as well as a desire to continue to

travel internationally. Some even expressed an interest in working internationally at some point in the future. Carley and colleagues (2011) collected survey data from 120 individuals who had participated in a two-week study abroad experience at some point during the nine years prior. These participants endorsed items pertaining to interest in future travel as well as in recommending study abroad and international travel to others. Most significantly, students endorsed increases in international outlook and interests.

In addition to increased awareness and interest, cross-cultural and international contact may result in changes in students' worldview and global mindedness, as well as their competency in interacting across cultures. Studies have found that students who study abroad reported higher levels of global mindedness than those with no international travel experience (e.g., Clarke, Flaherty, Wright, & McMillen, 2009; Douglas & Jones-Rikkers, 2001). Furthermore, international immersion learning may help students develop more of an intercultural identity (Paige et al., 2004). In a study with 189 junior high and high school students enrolled in 4 to 5-week long summer study abroad programs (in France, Italy, or Spain; Allen et al., 2006), students reported decreased identification with the native culture and increased identification with the target culture after travel. The authors argued that this indicates that the international experience provided students with the opportunity to reevaluate their cultural identity and develop "a more hybrid understanding of identity" (p. 207). International study enables individuals to become more aware of their own cultural identity (Bennett, 2009; 2012), which allows for more sensitive and competent cross-cultural interaction (Harrowing et al., 2012; Paige et al., 2004).

While many studies have found support for the assumption that international and cross-cultural interaction generates gains in the global learning outcomes of cultural awareness, interest, and identity, other research provided evidence that these gains are not a given. For example, while Alreshoud and Koeske (1997) found that cross-cultural contact led to increased knowledge of other cultures, they found no significant relationship between increased knowledge and more favorable attitudes toward the other culture. In fact, students may return from international immersion learning experiences with negative stereotypes of hosts and host culture (Allen et al., 2006; Bateman, 2002; Bennett, 2012). In Jackson's (2009) study of 13 Chinese students participating in a short-term immersion experience in England, seven students experienced no increases in intercultural sensitivity and one experienced a decrease. Additionally, some studies have found that even when students experience positive outcomes, these benefits may not generalize to other cultures or be permanent. Bennett (2012) reported that while students from Cuba who visit Nicaragua experienced decreases in prejudice towards Nicaraguans, this tolerance did not extend to other cultures, even other South American cultures, and Haynes' (2011) findings suggested that benefits experienced by study abroad participants are short-lived. Haynes' findings did give some hope, in that, while outcomes were inversely correlated with number of years since travel, the relationship was not significant.

Many researchers have attempted to determine what might be the underlying cause for these contradicting observations of student outcomes. Factors may be at play that supersede the potential positive effects of contact with another culture (Crabtree, 2008). Students may not experience these expected gains due to a failure to take full

advantage of their experience (Paige et al., 2004). Furthermore, program preparation, facilitation, and debriefing are the critical factors in leveraging positive outcomes (Bennett, 2012). Other researchers have argued that gains in these domains may not be significant or measureable because students who desire to study abroad may be high in domains of cultural awareness and international interest prior to travel. This interest, awareness, and experience may, in fact, influence students' motivation for participation in future study abroad experiences (Nyaupane, Paris, & Teye, 2008). For example, Kehl and Morris (2008) found that self-reported levels of global mindedness of students who had previously studied abroad for eight weeks or less did not differ significantly than those of students with formal plans to study abroad in the near future; Carlson and Widaman (1988) reported that students who reported high levels of cross-cultural interest prior to travel continued to report high levels after travel. Nevertheless, researchers continue to explore potential factors that impact students' attainment of global learning outcomes, such as international interests. One of the goals of this study was to add to the understanding of what influences the development of students' international interests following global service learning.

Emotional and psychological well-being outcomes. While outcomes related to global learning are expected as a result of international immersion learning, students may also experience unexpected interpersonal and emotional outcomes. Some may experience positive effects in these domains, particularly in regard to psychological well-being and personal growth. Psychological well-being refers to positive mental health states, or "feeling cheerful, interest in and enjoyment of life" (Veit & Ware, 1983, p. 730). Bergman et al. (2012) reported that students consistently reported a positive

emotional state related to their international immersion experience at several time points

after return. Additionally, references to a negative mood state decreased over time. In

addition to emotional benefits, self-realization and personal growth were positive benefits

of international immersion learning (Nash, 1976). Nursing students in Smith and Curry's

(2011) study experienced both emotional and personal development. This growth was

particularly captured in the interview portion of the study: "Spiritually, emotionally,

intellectually, I have grown, due to my experience" (p. 20). As a result of the study

abroad experience, students may develop a stronger sense of self and increased self-

confidence in dealing with novel and complex situations, which in turn may be associated

with greater psychological well-being (Braskamp & Engberg, 2011).

However, not all international immersion students experience increased well-

being and personal growth. Students reported having difficulty readjusting to American

culture upon their return and many experience re-entry shock (Wielkiewicz & Turkowski,

2010); that is, negative reactions to their home culture (Carlson & Widaman, 1988;

Walling et al., 2006). Researchers have shown that during this process of re-entry,

students struggle with psychological well-being (Walling et al., 2006). Moreover,

students have reported feeling blue and less able to cope with anxiety (Wielkiewicz &

Turkowski, 2010). Additionally, students often anticipate strains and difficulties in

interpersonal relationships upon return (Bochner et al., 1980), and many experience these

difficulties (Martin, 1986; Wielkiewicz & Turkowski, 2010). In a qualitative study with

mental health care providers who specialize in working with both long- and short-term

missionaries, Keckler, Moriarty, and Blagen (2008) identified psychological and

emotional well-being to be of significant concern for these individuals. While the goal of

international immersion learning is to increase students' awareness and understanding of the world, researchers have demonstrated that students' psychological well-being is also affected both positively and negatively. Consequently, further exploration of impacts to psychological well-being are warranted.

Sociocultural Adaptation

In addition to hypothesizing and observing outcomes of international immersion learning, researchers have focused on what factors may influence the development of these outcomes. One factor that may be related to the achievement of desired outcomes of study abroad is sociocultural adaptation; that is, a student's ability and willingness to adapt to their new cultural setting during their international immersion experience. In fact, failure to interact and engage with the host culture while abroad has been identified as a potential hindrance to achievement of positive outcomes (Williams, 2005). Broadly speaking, adaptation refers to an individual's response to environmental demands and any subsequent changes in his or her person (Berry, 1997). Sociocultural adaption, then, references responses to cultural differences and is characterized by an individual's ability to learn skills required in a new cultural environment. Factors that affect sociocultural adaptation include general cultural knowledge, satisfaction with host national contact, length of stay, feelings of homesickness and loneliness, cultural distance, and social support (Ward & Kennedy, 1993; 1999; Ward & Searle, 1991).

Adaptation to a new cultural environment can be thought of in terms of both sociocultural adjustment and psychological adjustment. Sociocultural adjustment is best understood via social learning theory and behavior, while psychological adjustment refers to coping style and affect (Searle & Ward, 1990; Selmer, Chiu, & Shenkar, 2007).

Despite this distinction, psychological adjustment and sociocultural adjustment are inextricably linked; the research consistently demonstrated their high positive correlation (Berry, 1997; Demes & Geeraert, 2014; Ward & Kennedy, 1999). Challenges and successes when adapting to a new culture have a great impact on an individual's well-being; research has shown that challenges in sociocultural adaptation predict psychological distress (Wu & Mak, 2012). For this reason, I hypothesized that sociocultural adaptation would impact the relationship between students' psychological well-being before travel and after return.

Furthermore, level of adaptation may also be impacted by and in turn impact an individual's knowledge and awareness of the new cultural environment. Prior familiarity with another culture may ease the adaptation process, and stronger adaptation may allow for greater understanding and awareness of the host culture (Dorozhkin & Mazitova, 2008). I hypothesized that sociocultural adaptation would mediate the relationship between students' level of international interests before travel and its development upon return.

Finally, sociocultural challenges and disruptions may be most prevalent when first interacting with a culture different from one's own (Berry, 1997; Ward & Kennedy, 1999). For this reason, it is important for researchers to explore the experience of short-term sojourners. Some researchers have found that short-term international students experienced significant psychological distress and difficulty with sociocultural adaptation (O'Reilly, Ryan, & Hickey, 2010), while others did not find that students experienced the difficulties anticipated (Allen et al., 2006). Sociocultural adaptation is an important topic

for exploration when discussing international immersion learning and the achievement of desired outcomes.

Cultural Distance

One of many factors that may impact a sojourner's experience, understanding, and adaptation while traveling may be the cultural distance between home and host cultures (e.g., Allen et al., 2006; Bardi & Guerra, 2011; Berry, 1997; Douglas & Jones-Rikkers, 2001; Searle & Ward, 1990; Stahl & Caligiuri, 2005; Suanet & Van De Vijver, 2009; Wells, 2006). For the purposes of this discussion, cultural distance can be broadly defined as the "the extent to which shared norms and values in one country differ from those in another" (Drogendijk & Slangen, 2006, p. 362). It is important to note that the topic of culture and cultural values is complex and that this definition is simplistic. Culture may include shared ideas by a group about what is good, right, and appropriate in society; norms for behavior; the way in which societies function; and much more. Cultural dimensions and distance are best analyzed at the society or group level rather than at the individual level (Schwartz, 1999). These societies and groups may or may not be contained by a single country. However, while within-country differences do exist and national boundaries do not necessarily correspond to cultural boundaries, the nation is the most frequent way in which cultural boundaries are determined (Hsu, Woodside, & Marshall 2013; Schwartz, 1999). Furthermore, the impact of cultural distance may differ based on the direction of the encounter; that is, an American's experience in Germany may be different than a German's experience in the United States (Selmer et al., 2007; Shenkar, 2001; Ward & Kennedy, 1999; Yildiz, 2014). Other factors may impact the experience of cultural differences, such as, whether one is visiting family or traveling for

holiday or if the visit is a first-time experience or a return trip (Hsu et al., 2013).

Determining cultural distance between countries is a complex undertaking.

　　　　Measuring cultural distance. Several researchers have developed methods for

measuring and comparing culture. In fact, Taras, Kirkman, and Steel (2010) counted 154

public instruments for measuring culture. Among these popular methods include

Hofstede's (1980) theory, the more recent works of Schwartz (1994; 1999) and the

GLOBE study (Hanges, Javidan, Dorfman, & Gupta, 2004; House et al., 1999), and the

use of economic dimensions (e.g., Drogendijk & Slangen, 2006; Hsu et al., 2013).

　　　　One of the earliest developed and most popular methods for determining cultural

distance is that of Hofstede. As an employee of IBM, Hofstede (1980) collected data

from 117,000 IBM employees working in 40 different countries between 1967 and 1973

for the purpose of evaluating employee experiences and work-related values.

Subsequently, Hofstede used this data to explore observable between-country differences

in response patterns. Using "an eclectic analysis of data, based on theoretical reasoning

and correlation analysis" (p. 54), he determined that four dimensions could explain these

differences: power distance, uncertainty avoidance, individualism, and masculinity.

Power distance referred to the level with which individuals are aware of and accept

unequal distribution of power and status. Uncertainty avoidance is a measure of how

threatened individuals are by the unknown and uncertain situations. Individualism

focuses on the emphasis placed on the individual versus the group in a society, while

masculinity refers to the emphasis placed on traditional masculine values. In 2012,

Minkov and Hofstede identified a fifth dimension: long- versus short-term orientation.

Hofstede's conceptualization may be one of the most prolific and influential models; his

work was cited 1,101 times between 1987 and 1997 (Sivakumar & Nakata, 2001).

Nevertheless, Drogendijk and Slangen (2006), Schwartz (1994; 1999), and Shenkar

(2001), among others, identified several criticisms of Hofstede's model. First, it was not

designed as an assessment of cultural dimensions and so may not be inclusive and

thorough. Additionally, participants were not a true sampling of the greater population;

many societal and cultural changes have occurred in the time since its development; and

it did not include all countries, resulting in a lack of representation for developing

countries.

In response to these criticisms, Schwartz (1992; 1994; 1999; 2006) developed an

alternative theory of measuring cultural dimensions, which addressed many critics'

concerns (Kim & Gray, 2009). One of the biggest reasons for this expected improvement

is that while Hofstede's theory and dimensions were determined after the fact, Schwartz's

theory involved a priori thinking (Hsu et al., 2013; Schwartz, 2006). To begin, Schwartz

(1992) identified 56 individual cultural values found worldwide. After comparing which

of these values held similar meanings across cultures, the number was reduced to 45.

Survey data was collected from native school teachers and college students in each

country. Seven dimensions were identified which were organized around three issues

confronted by all societies (Schwartz, 1999).

The first issue, often described as individualism versus collectivism, related to the

relationship between the individual and group. Schwartz described two poles to this

dimension. The first he labeled conservatism, in which cultural value was placed on the

group and maintaining the status quo. The second was autonomy, where cultural

emphasis was placed on individual expression. This second pole was further broken

down into intellectual autonomy (individual pursuit of knowledge) and affective

autonomy (individual pursuit of positive experiences). The second overarching issue

related to the guarantee of responsible and socially appropriate behavior and was divided

into two facets. The first, hierarchy, allowed for an unequal distribution of power and

goods, while the second, egalitarianism, focused on equality and social justice. Finally,

the third issue, which focused on the question of how humankind related to the natural

and social world, was broken down into mastery (emphasis on self-assertion, ambition,

and success) and harmony (emphasis on unity and protecting the environment).

Researcher responses to Schwartz's theory and dimensions varied. For example, Hsu and

colleagues (2013) found evidence to support their argument that Schwartz's theory was

more theoretically and empirically appropriate than other theories, namely Hofstede's.

On the other hand, Drogendijk and Slangen (2006) provided evidence that Schwartz' and

Hofstede's models hold similar explanatory power for cultural differences.

Another relatively new method for measuring culture and cultural distance is the

GLOBE study (e.g., Hanges et al, 2004; House et al., 1999), which sought to define

constructs that were strongly based in theory, developed with cross-cultural competency,

and empirically relevant and useful (Javidan, House, Dorfman, Hanges, & De Luque,

2006). In the development of this project, data was collected from 17,370 managers from

951 organizations in 62 different countries. Nine dimensions were identified at the

country level: future orientation, egalitarianism, assertiveness, institutional collectivism,

in-group collectivism, power distance, uncertainty avoidance, performance orientation,

and humane orientation (Hanges et al., 2004; House et al., 1999). The GLOBE project

has received some criticism, most notably from Hofstede (2006) who argued that this

model was simply a more complex depiction of his original model. The GLOBE project, Hofstede's model, and Schwartz's model have all been criticized for their inability to accurately describe culture despite their complexity; they oversimplify culture while at the same time are too complex to be useful in research (Kim & Gray, 2009).

A final and very simple way of measuring cultural distance is that of comparing economic dimensions. Some researchers have suggested that a country's wealth, for example, GDP per capita, is related to cultural factors (e.g., Gorodnichenko & Roland, 2010; Husted, 1999; Licht, Goldschmidt, & Schwartz, 2007). Some studies have used a combination of differences in GDP per capita and physical distance (Hsu et al., 2013) while others have used the Gini coefficient, a measure of income inequality (Suanet & Van De Vijver, 2009). Hsu and colleagues found that, while not as effective as Schwartz's model, a combination of GDP and physical distance comparison was as effective at determining cultural distance as Hofstede's model. Suanet and Van De Vijver (2009) compared objective measures of culture distance (the Gini coefficient, GDP, and Hofstede's model) to subjective measures of self-reported perceived cultural differences. While they did not find that objective measures significantly correlated with subjective measures, they found no difference in predictive ability of the different objective measures used. Economic variables may be as effective as complex models in predicting cultural differences. These findings highlight the difficulty in quantifying cultural factors and differences and the fact that the many measures that have been developed for assessing this construct are, arguably, equivalent in their accuracy.

Cultural distance impacts sociocultural adaptation. Cultural distance is an important factor to consider in study abroad research. Country visited is likely to have an

immense impact on students' experience and development after their return (Rohrlich &

Martin, 1991). Some researchers have found that increased cultural distance between

host and home countries is related to decreased well-being (e.g., Demes & Geeraert,

2014). Others disagree; interaction with more culturally different societies may in fact

result in the increased achievement of positive outcomes (Dragoni, Tesluk, Moore,

VanKatwyk, & Hazucha, 2014). Specifically, increased cultural distance during study

abroad may be associated with greater increases in global mindedness (Douglas & Jones-

Rikkers, 2001).

A "crucial" factor in the relationship between cultural distance and well-being is

psychological and behavioral adjustment (Suanet & Van De Vijver, 2009, p. 189).

Sojourners' ability to adapt to their environment is greatly impacted by the degree of

difference between what they are accustomed to in their home culture and their

experience in the host culture. Interaction between more distant cultures may require

greater culture learning and may trigger negative biases toward the other culture,

resulting in poorer adaptation (Berry, 1997). When traveling to more culturally distant

locations, culture shock may be greater (Douglas & Jones-Rikkers, 2001) and

sociocultural adjustment may be more difficult (Searle & Ward, 1990). These impacts

may be particularly true for individuals visiting from a culture where life is relatively

predictable (Bardi & Guerra, 2011). Furthermore, sociocultural adaptation may be more

easily achieved with travel to more developed countries (Ward & Kennedy, 1999) as

culturally similar personality traits are more adaptive (Searle & Ward, 1990) and coping

is easier in more culturally similar countries (Stahl & Caligiuri, 2005). Students who

participate in global service learning or short-term missions may be particularly

susceptible to difficulties related to cultural distance as their experience may be their first in a developing country (Crabtree, 2008).

Finally, cultural distance may impact sojourners most when they initially interact with a culture and may dissipate over time; that is, the more time spent in a country, the less cultural distance from the home culture seemed to matter (Kashima & Abu-Rayya, 2014). This highlights the importance of looking at the experience of short-term sojourners, as their contact is limited and, thus, only during the period where cultural distance may have the greatest impact.

Purpose of the Study

Consequently, the purpose of my dissertation was to explore the moderating effects of sociocultural adaptation to the host country and cultural distance of the host country on the re-entry trajectories of international interests (a global learning outcome) and psychological well-being (a psychosocial outcome) following a faith-based short-term international immersion learning experience. Due to issues related to self-selection and the trait-like qualities of international interests and psychological well-being, pre-departure observations of these variables were used as co-varying moderators. Because sociocultural adaptation has a demonstrable impact on psychological adjustment, I hypothesized that it would result in increased psychological well-being at re-entry. In summary, I hypothesized that (a) all students' international interests would increase over time and that (b) sociocultural adaptation would moderate this development such that those who experienced greatest in-country sociocultural adaptation would experience stronger re-entry levels and growth of international interests; (c) sociocultural adaptation would impact change in students' psychological well-being over time such that comfort

and confidence in-country would result in increased psychological well-being at re-entry;

and (d) cultural distance would intensify these relationships such that students traveling

to countries more culturally distant would experience greater struggles with sociocultural

adaptation and, thus, lesser gains in international interests and psychological well-being.

CHAPTER II

Method

Participant Characteristics

All participants ($N = 147$) were undergraduate students at a private university in the Pacific Northwest who were enrolled in a short-term global service learning program, called SPRINT (Seattle Pacific Reachout International). The SPRINT program organized trips during the summer quarter (2009 to 2014) to one of 15 countries (i.e., Brazil [$n = 7$], Cambodia [$n = 5$], China [$n = 3$], Dominican Republic [$n = 10$], Guatemala [$n = 26$], Haiti [$n = 11$], India [$n = 10$], Indonesia [$n = 18$], Malawi [$n = 6$], Russia [$n = 13$], Rwanda [$n = 15$], Thailand [$n = 2$], Uganda [$n = 1$], Ukraine [$n = 1$], or Vietnam [$n = 14$]). Each small team of students (typically, four to six) traveled together for 13 to 62 days ($M = 28.5$, $SD = 14.1$), depending on destination country. All teams received the same preparation prior to departure and were offered the same debriefing upon return. Participants' ages ranged from 18 to 24 ($M = 20.22$, $SD = 1.02$). The sample was 87% female and 72% Caucasian (5.4% Asian, 5.4% Hispanic, .7% American Indian/Native American, 6.8% Multi-racial, and 9.5% did not respond).

Sample Procedures

Participant contact was made via visits to preparation meetings and classes, re-entry debriefing retreats, and personal contact with students via email. Students were asked to complete surveys at seven different time points: pre-departure, as well as 2 weeks, 6 weeks, 3 months, 6 months, 9 months, and 12 months after re-entry. All scales were administered online through Survey Monkey®. All sampling procedures followed

strict ethical standards in accordance with and approved by Seattle Pacific University's
Institutional Review Board.

Sample Size, Power, and Precision

The literature varied in recommendations for sufficient sample size requirements
when using Hierarchical Linear Modeling (HLM). The G*Power 3.1 (Faul, Erdfelder,
Buchner, & Lang, 2009) power analysis for multiple regression suggested an adequate
sample size of 64 for this project.

Measures and Covariates

Demographic information. Student name, student ID number, gender, birthday
(used to calculate age), and race/ethnicity/nationality were collected at each time point.

International interests. The Global Learning Assessment (AGL) scale, created
by the Association of American Colleges and Universities (AAC&U), is a self-report
measure of global learning that relies upon students' self-perception of their learning
gains from time abroad. (Musil, 2006). There are seven subscales in the AGL, including:
level of introspective and analytical thinking, attitudes toward social justice, participation
in social justice behaviors, interest in international issues, self-assessment of general
strengths and weaknesses, level of agreement with democratic statements, and global
mindedness gained from their trip abroad. For the purpose of this study, the subscale of
Global Learning International Interests (AGLII) was selected as the outcome variable.

The AGLII contains 14 items that measure student international interests.
Participants were asked to indicate their level of agreement with several statements.
Responses were based upon a 4-point Likert scale, ranging from 1 (*disagree strongly*) to
4 (*agree strongly*). These items included statements such as "I want to gain a broad,

intellectually exciting education," and "I spend a great deal of time thinking about international relations" (Musil, 2006). The AGLII was administered at pre-departure, as well as 2 weeks, 6 weeks, 3 months, 6 months, 9 months, and 12 months after re-entry to measure change over time. The AAC&U has published the AGL measure but has not reported the reliability or validity coefficients. However, in a yearlong evaluation of study abroad students, both pre-and post-trip, the range of alphas for the AGLII scale was from .77 to .86 ($M = .82$; Kocheleva, Forman, Yamamoto, McKinney, & Bikos, 2011). The Cronbach's alpha for AGLII in my study was .96.

Psychological well-being. The Mental Health Inventory, Psychological Well-Being subscale (MHI; Veit & Ware, 1983) is a 10-item self-report questionnaire measure for assessment of mental health in terms of psychological well-being. This instrument was specifically designed for use in general populations. Each item on the MHI was rated on a six-point Likert scale, with 1 indicating *always* and 6 indicating *never.* Examples of items include, "During the past month, how much of the time have you generally enjoyed the things you do?" and "During the past month, how much of the time have you been a happy person?" The 10-item Psychological Well-Being subscale score of the MHI was determined by computing the average of all relevant items. Subscale items were recoded so that a higher score indicates greater psychological well-being.

The MHI was fielded as a part of the Rand Health Insurance Experiment ($N = 5,089$) at six sites: Dayton, OH; Seattle, WA; Fitchburg, MA; Franklin County, MA; Charleston, SC; and Georgetown County, SC. The mean age of participants was 32.2, with 46% male and 85% Caucasian. Exploratory and Confirmatory Factor Analysis supported two higher order, correlated factors, Psychological Distress and Psychological

Well-Being, and five lower order factors including Anxiety, Depression, Emotional Ties, General Positive Affect, and Loss of Behavioral Emotional Control. The PWB subscale of the MHI was administered at pre-departure, as well as 2 weeks, 6 weeks, 3 months, 6 months, 9 months, and 12 months after re-entry to measure change over time. The internal consistency reliability coefficient alpha ranged from .83 to .91 for the lower-order scales, and correlations between subscales ranged from .34 to .75, indicating that while related, the five subscales represent unique factors. Internal reliability coefficients for the two higher-order factors ranged from .92 to .96. In recent studies, the reliability estimates for the Psychological Well-Being subscale was .82 (Burris, Brechting, Salsman, & Carlson, 2009). In my study, the Cronbach's alpha for the PWB subscale of the MHI was .97.

     Sociocultural adaptation. The Sociocultural Adaptation Scale (SCAS; Ward & Kennedy, 1999) explores how an individual adjusts to a new environment/culture in terms of cultural learning and functional social skills. The original SCAS was comprised of 16 items (Searle & Ward, 1990) while the most recent version includes 29 items and was designed to be flexible and can be modified to best accommodate sample characteristics (Ward & Kennedy, 1999). This study utilized a 25-item version of the scale. Participants were asked to rate the amount of difficulty experienced while attempting to perform everyday tasks or activities in their host country on a 5-point Likert scale with anchors ranging from 1 (*no difficulty*) to 5 (*extreme difficulty*). Higher scores indicated a greater degree of difficulty with adaptation and adjustment to the culture. Sample items from the scale included, "Making yourself understood," "Finding your way around," and "Understanding cultural differences." The SCAS was administered at 2

weeks after re-entry. Searle and Ward (1990) reported a Cronbach's alpha of .81 for the

original 16-item SCAS, while Ward and Kennedy (1999) reported alphas ranging from

.75 to .91 (*M* = .85). Recent studies have reported Cronbach's alphas of .91 (Klemens &

Bikos, 2009) and .88 (Wilson, Ward, & Fischer, 2013). The Cronbach's alpha for the

SCAS in my study was .97.

      Cultural distance. The Gini coefficient (The World Bank Group, 2014)

measures the extent to which distribution of wealth in a country deviates from a perfectly

equal distribution. A Gini index of 0 indicates equality while an index of 100 indicates

inequality. The Gini coefficient has previously been used to estimate cultural distance

(e.g., Suanet & Van De Vijver, 2009). The absolute value of the difference between host

country GINI and home country (U.S.A.) GINI was calculated for each participant.

CHAPTER III

Results

Data Analytic Plan

This project was a study growth curve analysis that utilized hierarchical linear modeling (HLM) to explore students' international interests (measured by AGLII) and psychological well-being (measured by the PWB subscale of the MHI) as a function of change over time. The study looked at the effect of sociocultural adaptation on the development of students' international interests as well as their psychological well-being. Additionally, this study examined whether or not cultural distance between host and home countries impacted these trajectories. Data was analyzed using HLM 7.0, which allows for multi-level analyses (i.e., nested data) by utilizing Level 1 (L1) and Level 2 (L2) equations. Each equation includes an *intercept* (i.e., the expected initial level of a variable) and a *slope* (i.e., change over time). L1 equations model variation in the repeated measures dependent variable (i.e., international interests or psychological well-begin) as a function of time. L2 equations model individual differences in L1 variables as a function of L2 variables (i.e., sociocultural adaptation and cultural distance). Analyses were run for international interests and psychological well-being separately. International interests and psychological well-being scores were collected from students at seven time points: prior to departure as well as 2 weeks, 6 weeks, 3 months, 6 months, 9 months, and 12 months after re-entry.

Time was computed by using the intervals in months between each score time point, and trip return date served as time 0. All time points were computed by subtracting the trip return date from the survey date. As it is likely that pre-departure levels of

international interests and psychological well-being contribute to re-entry outcomes and provide some control of selection bias, they were used as moderators at the L2 level. In all analyses, the outcome of interest (i.e., international interests or psychological well-being) was modeled in L1 as a function of intercept, slope, and random error; in L2, it was modeled as a function of predictor variables (i.e., pre-departure scores, sociocultural adaptation, and objective cultural distance).

Data Preparation and Missing Data

One hundred forty-seven students who were enrolled in SPU's SPRINT program completed at least one of seven waves in this longitudinal study. While HLM can accommodate datasets where there are differing numbers of unevenly spaced observations, this particular analysis required that students have pre-departure and at least one re-entry observation of PWB or II. Thus, cases where there was no pre-departure observation of PWB or II were dropped. Correspondingly, cases where there was not at least one re-entry observation of PWB or II were dropped. The result was 111 cases.

In the resulting dataset, all cases had pre-departure data. Number of re-entry observations by case ranged from 1 to 6 ($M = 3.11$, $SD = 1.83$). Number of surveys completed at each re-entry time point were as follows: 2 weeks ($n = 90$), 6 weeks ($n = 23$), 3 months ($n = 33$), 6 months ($n = 62$), 9 months ($n = 30$), and 12 months ($n = 40$).

Multiple imputation was used to estimate missing data at the item level for each longitudinal wave, separately. No cases had to be deleted as no participant had more than 24% missing data in any single wave (Olinsky, Chen, & Harlow, 2003). Once each wave was imputed, single imputations from each wave were merged to create the dataset. All

scales scores were transformed to z-scores for the HLM analysis; L1 scores were

transformed in the long file. Correlations among L2 variables can be seen in Table 1.

Table 1
Correlations among Level 2 (Between Persons) Variables

	1	2	3	4	5	M	SD
1. Pre-departure II						2.95	.384
2. Pre-departure PWB	-.031					4.39	.734
3. Sociocultural Adaptation	.059	.058				1.87	.337
4. Cultural Distance	.080	.047	-.037			8.34	5.73
5. Age	.137	-.094	.128	.019		20.2	.994
6. Gender	-.005	-.021	-.070	.096	-.185*	87% female	

*Note. * p < .05*

A Sequential and Exploratory Orientation to Model Development

Model development and evaluation was approached in a systematic and sequential

manner. This exploratory approach is consistent with recommendations to pursue model

generating approaches in complex models (e.g., Jöreskog, 1993) by first understanding

the relatively simpler relations between the variables (e.g., McCoach, 2010; O'Connell,

Logan, Pentimonti, & McCoach, 2013) and assessing the viability of more complexity

based on the results. First, I assessed for the presence of linear and quadratic change over

time (months) for the two L1 variables (i.e., international interests and psychological

well-being). Second, to best understand the compositional effects of the time-covarying

variables on the dependent variable, two separate models were run for each outcome

variable. That is, international interests and psychological well-being were explored

separately as functions of pre-departure levels of international interests or psychological

well-being, respectively, sociocultural adaptation at re-entry, and cultural distance. To

create a final model, I used statistically significant predictors from both the change-over-time and composite effects analyses.

Assessing Longitudinal Growth Trajectories

First, longitudinal growth trajectories for each L1 variable (i.e., international interests and PWB) were identified by estimating the fit of linear, quadratic, and cubic growth models to each variable. This process was guided by a priori hypotheses but is also an important step in exploring the best fit for the shape of longitudinal data. I followed the model building approach recommended by O'Connell and colleagues (2013) by starting with an empty model (i.e., containing no predictors). In this model, I fit a baseline model with no growth; that is, the model contained random intercepts for all persons at L1 and no slope terms. For international interests (ZIINT), $\beta_{00} = -.014$ ($p = .877$) was the estimated overall mean ZIINT score across all students. Random error between students on the overall intercept is presented with the variance component, r_{oi}; e_{ti} represents random error within students from their own mean score. Although this model does not describe growth, it is a useful starting point because it allows for the partitioning of between (r_{oi}) to total ($r_{oi} + e_{ti}$) variance. The resultant intraclass correlation (ICC) for ZIINT suggested that 78% of the variance lies between students; 22% is due to variation within students across time-points. For psychological well-being (ZPWB), $\beta_{00} = -.001$ ($p = .992$) was the estimated overall mean ZPWB score across all students. The ICC for ZPWB suggested that 52% of the variance lies between students; 48% is due to variation within students.

Time was counted in months, with return date as time 0. Pre-departure data was used as an L2 variable. Survey dates were calculated by subtracting the trip re-entry date

from the automatic date-stamp of the online survey at subsequent waves. For example, if someone returned July 1, 2013 and completed the 2-week re-entry survey on July 15, 2013, they would have a time variable of .5 (i.e., approximately half a month). The model termed MONTH included a random intercept (i.e., allowing participants to vary in levels of ZIINT when MONTH = 0) and a random slope (i.e., allowing participants to vary in degree of linear growth). The model MONTH^2 assessed for quadratic change by including the squared MONTH variable, and the model MONTH^3 assessed for cubic change by including the cubed MONTH variable. In these models intercepts, slopes, and curvature were free to vary. Each model variable was added sequentially for each ZIINT and ZPWB. Coefficients, variance components, and deviance analyses for this process can be seen in Table 2.

For international interests, results of this process indicated no statistically significant linear, quadratic, or cubic function. This result indicates that the inclusion of the linear, quadratic, or cubic is not indicated in fitting a final model of international interests.

For psychological well-being, results of this model suggested a statistically significant cubic function such that average ZPWB score at pre-departure was .386 (p = .002) with instantaneous rate of change at baseline of -.363 ($p < .001$). Additionally, change in the rate of change increased by .062 ($p < .001$) SD each month, and the change to the change in rate of change decreased by .003 ($p = .001$) SD each month. Variance components suggested that no variance remained to be explained at the first time point or on the slope and curvature components. The result of this analysis indicated that the

cubic function of time should be considered for inclusion in fitting a final model of

psychological well-being.

Table 2
Evaluating the Fit of Linear, Quadratic, and Cubic Growth Models on Dependent Variables

	Coefficients				Variance Components						Deviance		
	β_{00}	β_{10}	β_{20}	β_{30}	r_0	r_1	r_2	r_3	$\sigma^2 (e)$	$\downarrow\sigma^2$	Dev	Par	ΔDev
ZIINT/International Interests: ICC = 78%													
Empty	-.014				.818***				.232		644.084	3	
MONTH	-.043	.006			.761***	.002***			.184	21%	631.913	6	12.171**
MONTH^2	-.083	.033	-.003		.827***	.001	.000		.181	2%	628.096	10	3.817
MONTH^3	-.077	.024	-.001	-.000	.835	.003	.000	.000	.181	0%	627.663	15	.433
ZPWB/Psychological Well-Being: ICC = 52%													
Empty	-.001				.540***				.489		760.301	3	
MONTH	.053	-.013			.489***	.001**			.460	6%	757.718	6	2.58
MONTH^2	.150	-.082	.006†		.560***	.051	.000		.364	21%	749.364	10	8.354
MONTH^3	.387**	-.363***	.062***	-.003***	.417	.010	.007	.001	.405	-11%	740.923	15	8.441

Evaluating the Impact of Pre-departure II, SCAS at re-entry, and Cultural Distance

on International Interests

L2 variables of pre-departure international interests (ZIIPRE), sociocultural

adaptation (ZSCA2W), and cultural distance (ABSGIDFF) were added individually to

the linear model of international interests. As shown in Table 3 and illustrated in Figure

1, results continued to indicate a nonsignificant linear function. The only significance in

this model was that pre-departure levels of international interests significantly predicted

level of international interest upon return. That is, for every one standardized unit

increase in ZIINTPRE prior to departure, students showed a .564 standardized unit

increase in ZIINT at time 0 (i.e., return). There was no significant change in these levels

over time, and neither sociocultural adaptation (ZSCA2W) nor cultural distance

(ABSGIDFF) had an impact on intercept or slope. The variance components for intercept

($r_0 = .396$, $p < .001$) and slope ($r_1 = .002$, $p = .002$) were significant, indicating that

variance remained to be explained. However, the variables used in this model were

insufficient to explain the variance seen among participants and over time.

Table 3

Linear Model of International Interests (ZIINT) as a Function of Time, Pre-departure II, Sociocultural Adaptation, and Cultural Distance

Fixed Effect			
For INTRCPT1, π_0	International Interests (ZIINT)		
Fixed Effect	Coefficient	*SE*	
INTRCPT2, *β_{00}*	.101	.133	
ABSGIDFF, β_{01}	-.012	.013	
ZSCA2W, β_{02}	.037	.071	
ZIIPRE, β_{03}	.564***	.072	
For MONTHS slope, π_1			
INTRCPT2, β_{10}	.002	.016	
ABSGIDFF, β_{11}	.001	.002	
ZSCA2W, β_{12}	-.012	.008	
ZIIPRE, β_{13}	.007	.009	
Random Effect	Coefficient	*SD*	
INTRCPT1, r_0	.396***	.630	
MONTHS slope, r_1	.002**	.040	
level-1, e	.192	.438	

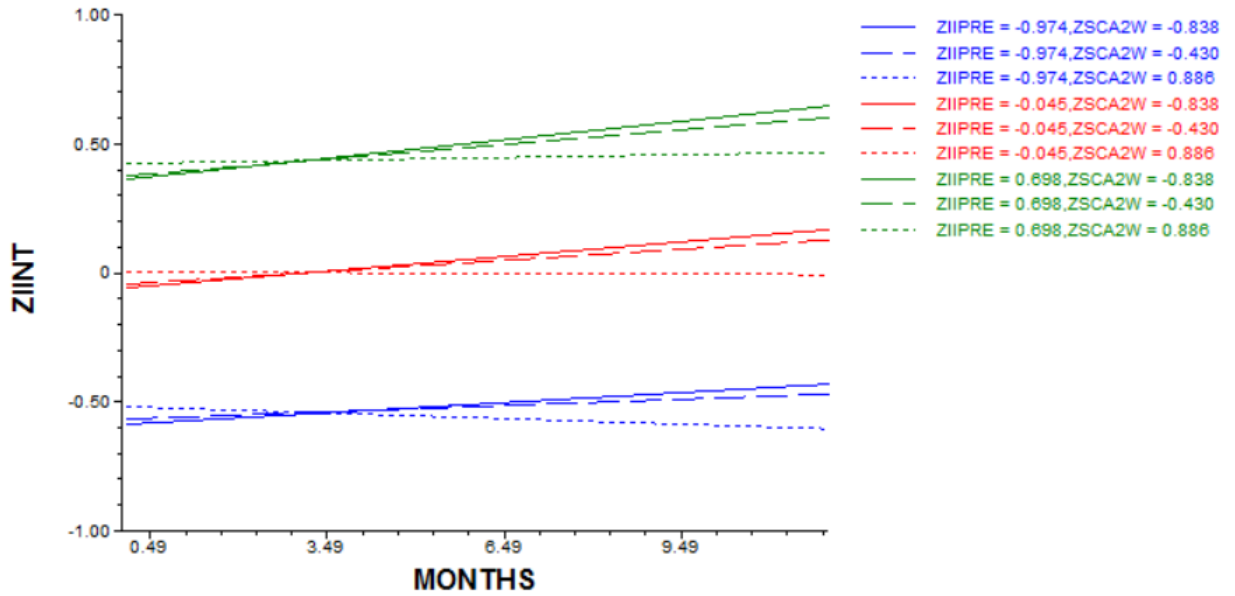*Note.* *** $p < .001$, ** $p < .01$, * $p < .05$, † $p < .10$.

Figure 1. Graph of international interests (ZIINT) scores as a function of change over time, moderated by pre-departure levels of international interests (ZIIPRE) and sociocultural adaptation (ZSCA2W). Cultural distance (ABSGIDFF) is not represented in this figure due to graphing limitations and lack of significant impact on the model. The graph indicates no significant linear function ($\beta_{10} = .002$, $p = .880$). Pre-departure international interest has a significant impact on intercept ($\beta_{03} = .564$, $p < .001$) but not on slope ($\beta_{13} = .006$, $p = .465$). There was a non-significant moderating effect of sociocultural adaptation (ZSCA2W; $\beta_{12} = -.012$, $p = .152$) on the linear slope. The 25th, 50th, and 75th, percentiles of pre-departure international interests (ZIIPRE) are represented by blue, red, and green, respectively. The 25th, 50th, and 75th percentiles of sociocultural adaptation (ZSCA2W; higher values represent poorer adaptation) are represented by regular, dashed, and dotted line, respectively. Corresponding data is found in Table 3.

Evaluating the Impact of Pre-departure PWB, SCAS at re-entry, and Cultural

Distance on Psychological Well-Being

As the psychological well-being trajectory was best described by a model with a cubic function over time, this model was used as the starting point for entering L2 predictors. The L2 variables of pre-departure psychological well-being (ZPWBPRE), sociocultural adaptation (ZSCA2W), and cultural distance (ABSGIDFF) were added individually. Results continued to indicate a significant cubic function. At the level of

intercept, pre-departure psychological well-being (ZPWB) was significant such that for every one standardized unit increase in ZPWBPRE prior to departure, students showed a .527 ($p < .001$) standardized unit increase in ZPWB at time 0 (i.e., return). Neither sociocultural adaptation (ZSCA2W) nor cultural distance (ABSGIDFF) had a significant impact on intercept. Sociocultural adaptation (ZSCA2W) had a significant impact on instantaneous rate of change ($\beta_{12} = .074$, $p = .004$) and change to the rate of change ($\beta_{21} = -.006$, $p = .007$). This indicated that for every one standardized unit is ZSCA2W, students showed a .074 standardized unit increase in instantaneous rate of change and a .006 standardized unit decrease in change to the rate of change. Cultural distance (ABSGIDFF) had no significant impact on this model at any level, and no variable had a significant impact on the cubic coefficient. These results are summarized in Table 4 and depicted in Figure 2. All variance components in this model were non-significant, indicating that no variance remained to be explained.

Table 4

Cubic Model of Psychological Well-Being (ZPWB) as a Function of Time, Pre-departure PWB, Sociocultural Adaptation, and Cultural Distance

Fixed Effect		
For INTRCPT1, π_0	Psychological Well-Being (ZPWB)	
Fixed Effect	Coefficient	*SE*
INTRCPT2, β_{00}	.384**	.117
ZPWBPRE, β_{03}	.527***	.071
For MONTHS slope, π_1		
INTRCPT2, β_{10}	-.076***	.093
ZSCA2W, β_{12}	.074**	.025
For MONTHS^2 slope, π_2		
INTRCPT2, β_{20}	.062***	.017
ZSCA2W, β_{21}	-.006**	.002
For MONTHS^3 slope, π_3		
INTRCPT2, β_{30}	-.003**	.001
Random Effect	Coefficient	*SD*
INTRCPT1, r_0	.267	.517
MONTHS slope, r_1	.015	.121
MONTHS^2 slope, r_2	.000	.009
MONTHS^3 slope, r_3	.000	.001
level-1, e	.400	.632

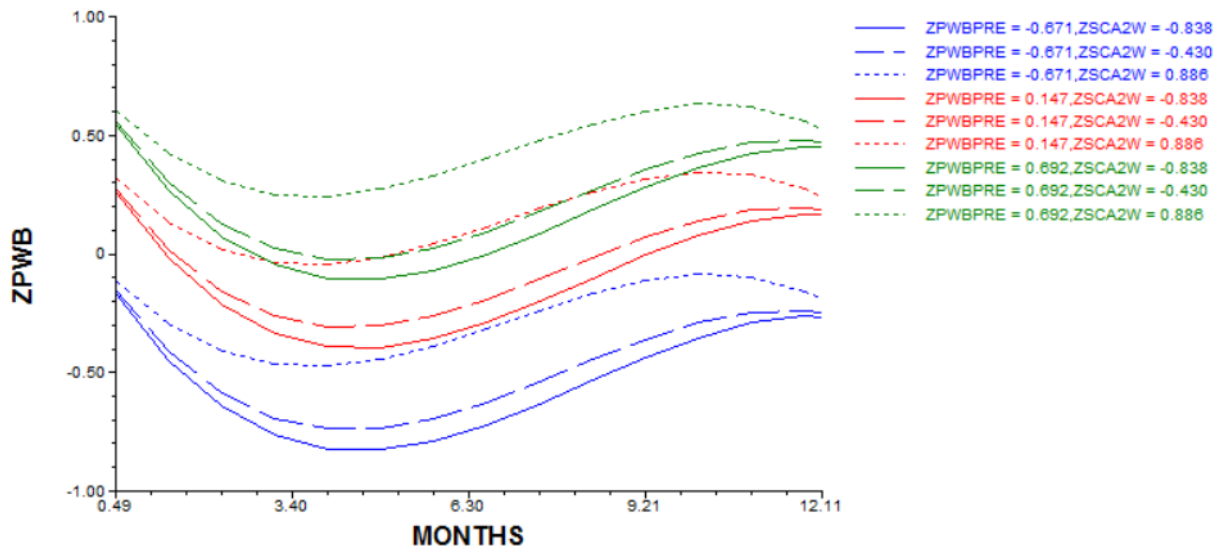*Note.* *** $p < .001$, ** $p < .01$, * $p < .05$, † $p < .10$.

Figure 2. Graph of psychological well-being (ZPWB) scores as a function of change over time, moderated by pre-departure levels of psychological well-being (ZPWBPRE) and sociocultural adaptation (ZSCA2W). Cultural distance (ABSGIDFF) is not represented in this figure due to graphing limitations and lack of significant impact on the model. Graph indicates a significant cubic function (β_{10} = -.376, $p < .001$; β_{20} = .062, $p < .001$; β_{30} = -.003, $p = .002$). Pre-departure psychological well-being has a significant impact on intercept (β_{01} = .527, $p < .001$). Sociocultural adaptation has a significant impact on instantaneous rate of change (β_{11} = .074, $p = .004$) and change in the rate of change (β_{21} = -.006, $p = .007$). The 25th, 50th, and 75th, percentiles of pre-departure psychological well-being (ZPWBPRE) are represented by blue, red, and green, respectively. The 25th, 50th, and 75th percentiles of sociocultural adaptation (ZSCA2W; higher values represent poorer adaptation) are represented by regular, dashed, and dotted line, respectively. Corresponding data is found in Table 4.

CHAPTER IV

Discussion

International immersion learning is becoming increasingly popular amongst undergraduate students and is frequently cited as a way for students to broaden their awareness of other countries and cultures. Students, in fact, often report their time abroad as very positive and that they feel that they have grown as a result of their experience. There is an abundance of qualitative and case study accounts of growth as a result of international immersion learning but few empirical, quantitative studies. Researchers are generally interested in both global learning and psychosocial outcomes, and so, in my study, I wanted to explore an outcome from both categories. I sought to quantitatively explore the trajectories of students' international interests (a global learning outcome), as well as their psychological well-being (a psychosocial outcome) after global service learning experiences. I chose also to further investigate the potential moderating effects of students' pre-departure scores of either international interests or psychological well-being, respectively, as well as their sociocultural adaptation while abroad and objective cultural distance between host and home countries.

International Interests Does Not Change Over Time

My results indicated no change in international interests over time. This finding is interesting, as awareness of and interest in global and international issues is often cited as a primary desired outcome and rationale for participation in international immersion learning programs (e.g., Alreshoud & Koeske, 1997; Bergman et al., 2012; Braskamp & Engberg, 2011; Carley et al., 2011; Carlson & Widaman, 1988; Jackson, 2009; Levine, 2009; Musil, 2006; Paige et al., 2009; Smith & Curry, 2011). Neither a linear nor

curvilinear growth trajectory was a significant fit for my data, indicating that students in

my study did not experience the expected and hypothesized increase in international

interests after return. However, these results are not completely surprising in light of

mixed evidence in the literature; that is, some studies report global learning growth as a

result of time abroad (e.g., Bergman et al., 2012; Caldwell & Purtzer, 2015; Carley et al.,

2011; Carlson & Widaman, 1988; Jackson, 2009; Levine, 2009; Musil, 2006; Smith &

Curry, 2011) but some do not (e.g., Allen et al., 2006; Alreshoud & Koeske, 1997;

Batemann, 2002; Bennett, 2012; Haynes, 2011; Jackson, 2009).

In the case of my study, several factors may be at play. First of all, it is possible

that students simply did not experience an increase in international interests. However,

self-selection bias cannot be discounted. Students who are already highly interested in

international issues may be more likely to choose to spend time studying abroad;

Nyaupane and colleagues (2008) cited international awareness and interest as a potential

motivator for participation in future study abroad experiences. In fact, within this group

of self-selected participants, my results indicated that pre-departure international interests

predicted where students started and where they stayed. Furthermore, the AGLII has

only four anchors, resulting in a rather coarse scale, and as Russell and Bobko (1992)

wrote, coarse Likert scales may result in information loss and reduce the likelihood of

detecting interaction effects. Therefore, it is possible that even if students did experience

changes in international interests over time, the AGLII may not be sensitive enough to

capture small changes in a population already likely to score highly.

Psychological Well-Being Trajectory: Re-entry Friction

For the outcome of psychological well-being, my results indicated a significant cubic trajectory after students' participation in global service learning. The data suggest that students reported a decrease in well-being upon return, with lowest level at around 4 months and a return to baseline by 12 months. This finding is in line with the widely-held belief that students experience re-entry shock, or reverse culture shock, after time spent abroad. This hypothesized phenomenon has gone by many names, including the "re-entry worm" (Pusch, 1998) and the "S" or "W" curve (e.g., O'Berg, 1954), and has been prevalent in much of the literature (e.g., Carlson & Widaman, 1988; Walling et al., 2006; Wielkiewicz & Turkowski, 2010). However, the largely cross-sectional data associated with this phenomenon have provided varying support for its existence. Furthermore, while there is qualitative support for this notion, (e.g., Allison, Davis-Berman, & Berman, 2012; Shannon-Baker, 2015) rigorous quantitative support is lacking. My longitudinal data significantly supported the idea of "re-entry friction" (coined in Bikos & Dykhouse, 2015), such that students experience a temporary decrease in psychological well-being lasting two to three months after returning from international immersion learning.

Pre-Departure Scores Predict Scores After Return

For both international interests and psychological well-being, scores at pre-departure significantly predicted students' scores after their return. In both cases, pre-departure scores had a significant moderating impact on intercept but not on slope; the shape of the trajectory was the same regardless of pre-departure score, but was higher overall for students with higher pre-departure scores.

For international interests, pre-departure score was the only L2 predictor that had any significant impact on the model; neither sociocultural adaptation nor cultural distance had a significant moderating effect on either intercept or slope. Pre-departure international interests significantly predicted level of international interests after return such that students who started high in AGLII scores stayed high and students who started low stayed low. This finding is consistent with previous studies (Carlson & Widaman, 1988; Kehl & Morris, 2008; Nyaupane et al., 2008) that report that international interest may predict desire for participation in immersion learning and that high levels of interest may predict high levels of interest after return.

For psychological well-being, pre-departure scores similarly had a significant impact on intercept but not on slope or cubic coefficients. Students who reported greater psychological well-being prior to time abroad also reported greater psychological well-being after returning home, but greater or lesser well-being prior to departure did not influence students' well-being after re-entry.

Stronger Sociocultural Adaptation Predicts Greater Dip in Psychological Well-Being

I had hypothesized that stronger sociocultural adaptation would result in higher scores of psychological well-being but found the inverse to be true. In fact, sociocultural adaptation had a significant moderating effect on psychological well-being such that higher SCAS scores (indicting weaker adaptation) resulted in a less dramatic dip in psychological well-being; students who adapted more strongly while abroad experienced more psychological difficulty upon return. Much research supports the high correlation between psychological and sociocultural adaptation during the process of adaptation

(e.g., Berry, 1997; Demes & Geeraert, 2014; Ward & Kennedy, 1999; Wu & Mak, 2012),

and while this relationship may hold for students during the immersion experience, it

does not appear to translate upon return. Furthermore, students who adapt strongly

abroad may have a more positive experience, which may make the return home feel like a

loss. For example, in Shannon-Baker's (2015) mixed-method study, students who

reported experiencing reverse culture shock also expressed themes of missing the people

and experiences of their time abroad. Perhaps students who adapt strongly and have a

positive experience while abroad have a harder time when returning home because they

have more to miss, and students who adapted more weakly abroad experience a less

significant dip in psychological well-being because they are relieved to be home.

Regardless, all students' psychological well-being returned to baseline by 12 months no

matter their reported adaptation while abroad.

Lack of Impact by Cultural Distance

Cultural distance as measured by the GINI coefficient did not have a significant

impact on either international interests or psychological well-being at any point. I had

hypothesized that exposure to cultures most different from home culture would

strengthen outcomes for students prepared for such exposure. However, cultural distance

did not have a significant impact on either intercept or growth coefficients. On the

surface, this result indicates that the degree to which home and host culture differ does

not matter in terms of outcomes. This may be a simplistic explanation of a more

complicated issue, however. As previously discussed, the concept of measuring cultural

distance is very complex. Several models exist (e.g., Drogendijk & Slangen, 2006;

Hanges et al., 2004; Hofstede, 1980; House et al., 1999; Hsu et al., 2013; Schwartz,

1994) for measuring differences between cultures, and all have mixed support

(Drogendijk & Slangen, 2006; Hofstede, 2006; Hsu et al., 2013; Javidan et al., 2006; Kim

& Gray, 2009; Schwartz, 1992; 1994; 1999; 2006; Shenkar, 2001; Sivakumar & Nakata,

2001; Suanet & Van De Vijver, 2009). Perhaps the GINI coefficient is not a sufficient

measure of cultural distance.

Implications for International Immersion Learning Programs

My results have several implications for international immersion learning

programs. First of all, in terms of international interests, it may be that programs need to

reevaluate whether or not they are fostering in their students the characteristics they hope

to be fostering. Programs such as the SPRINT program advertise themselves as ways for

students to strengthen their international awareness and sensitivity. While qualitative

(e.g., Bergman et al., 2012) and some quantitative (e.g., Carley et al., 2011) research

supports this idea, results, including my own, remain mixed. My results suggest that

students do not demonstrate any significant change in international interests with, in fact,

the only significant predictor for post-re-entry interest being pre-departure interest.

Subjective student report may be insufficient support for expected global learning

outcomes, and programs should reevaluate what outcomes they wish to be fostering and

what they are using for measurement.

Second, my results significantly support the notion that students may experience

re-entry disorientation or friction. That is, the data demonstrate a dip in functioning but

with an ultimate return to pre-departure levels. This period of decreased well-being may

indicate that greater re-entry support is need for programs. While programs may provide

support immediately upon return, follow up several months later may be indicated. In my

study, students report lowest well-being at about four to five *months* after return.

Furthermore, my results indicate that students who adapted the best while abroad may

experience the greatest difficult upon return. Typically, students who struggle abroad

might be the focus of increased attention upon return home, but my results suggest that

those who adapt well should not be overlooked or ignored. Finally, this period of re-

entry friction may be an opportunity for programmatic intervention (e.g., career

exploration, re-entry debriefing and integration) to cement and enhance global learning

and psychosocial growth.

Finally, my results are specific to a short-term, faith-based global service learning

programs. While other programs may benefit from considering these results,

generalization should not be assumed and continued research should be done. It is

difficult to evaluate the research on international immersion learning because programs

can look so vastly different, and no single field lays claim to the research. Collaboration

amongst fields and consideration of various fields' research should be incorporated in

informing and planning a successful international immersion learning program.

Study Limitations

Limitations to my study included size and characteristics of the sample, as well as

difficulty with measuring desired variables. First of all, my initial sample size of 147 was

decreased to 111 when the decision was made to use pre-departure scores as an L2

predictor; only 111 participants completed surveys after re-entry and could be included in

the longitudinal analyses. Furthermore, the participants in my study were

overwhelmingly Caucasian and female. This lack of variability in the sample makes

generalizability to more diverse populations difficult. Additionally, the SPRINT program

is a very specific and unique type of international immersion learning in that it is short-term, faith-based, and student-led. All students receive strong pre-departure orientation with a large focus on team development and are offered some re-entry support. Due to these unique characteristics, the SPRINT program is not representative of the wide variety of immersion and study abroad programs available.

In addition to limitations with my sample, I also encountered limitations in measurement, specifically with the AGLII scale and in measuring cultural distance. AGLII may not have been a sensitive enough measure to capture any meaningful change over time. Cultural distance has traditionally been a very complicated and difficult concept for research to define, and my study was no different. While there has been some support for using the GINI coefficient as a measure of cultural distance (e.g., Suanet & Van De Vijver, 2009), the lack of impact in my analyses may suggest that it is not an adequate measure. Furthermore, students' objective experience of cultural distance was not recorded.

Future Directions and Research

Specific to my study, I highlight several recommendations for future research. First, a two-point pre-departure baseline may strengthen analyses, as it would result in a more consistent and reliable measurement of students' pre-departure functioning. Second, since significant variability remained in the model of international interests, other variables such as, for example, trip length, previous travel experience, and team cohesion could be considered. Third, all measurement was done while students were in the home country. Collection of data from students while they are abroad could result in a richer picture of their experience. Fourth, as previously discussed, measurement of

international interests and cultural distance could be improved. Incorporating additional measures of these constructs would either help solidify the observed outcomes in this study or provide support for their lack of validity. Finally, replication of these results with different types of international immersion learning programs would support the generalizability of my findings.

In conclusion, the field of international immersion learning research remains very broad with much opportunity for deeper study. As such programs are becoming increasingly popular, it is important that empirically sound research continue to inform program development to ensure that desired outcomes are being accurately measured and adequately met.

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