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Predictors of Intercultural Competence Among International Volunteers

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PREDICTORS OF INTERCULTURAL COMPETENCE AMONG

INTERNATIONAL VOLUNTEERS

by

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A Dissertation presented to the
Graduate School of Arts and Sciences of Washington University
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ABSTRACT OF THE DISSERTATION

Predictors of Intercultural Competence Among

International Volunteers

by

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Doctor of Philosophy in Social Work

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Dr. Amanda Moore McBride, Chairperson

International volunteering and service (IVS) has the potential to promote intercultural
competence, or "the ability to communicate effectively and appropriately in
intercultural situations based on one's intercultural knowledge, skills, and attitudes"
(Deardorff, 2008: 33). Although conditions of IVS vary greatly across program models,
nearly all claim that volunteering will increase intercultural competence. Contact
theory, transformative learning theory, and various stage theories of intercultural
learning all suggest, however, that cultural contact will only improve a volunteer's
intercultural competence under certain conditions. This dissertation builds on previous
scholarship by isolating four characteristics that vary across institutional models, and
testing how these variations affect volunteers' perceptions of intercultural competence.
These variables include duration of service, cultural immersion, guided reflection, and
contact reciprocity. The study design is cross-sectional and retrospective. It utilizes the
International Volunteering Impacts Survey (IVIS) to collect self-reported responses
from 291 volunteers who served during the years 2002 and 2006 in one of two service

models that differ on multiple characteristics. Using these data, a three-step hierarchical

multiple regression assesses the relationship between the four independent variables and

intercultural competence, controlling for other individual and institutional effects.

Findings suggest that that service duration, cultural immersion, guided reflection, and

contact reciprocity are all positively related to intercultural competence. In addition,

guided reflection appears to moderate the relationship between duration and

intercultural competence. This study responds to the need for research on the effects of

IVS across institutional models, and has important implications for recent legislation

supporting international service.

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CHAPTER 1: OVERVIEW

Introduction

International volunteering, defined as volunteering across national borders outside

of one's home country, is reportedly the most prevalent form of civic service in the 21st

century and continue to grow (Clark, 2003; Hills & Mahmud, 2007; McBride, Benítez, &

Sherraden, 2003; Randel, German, Cordiero, & Baker, 2005; Sherraden, Lough, &

McBride, 2008). In the US alone, nearly one million Americans volunteer internationally

through an organization each year (Lough, 2006). The majority of the organizations

facilitating these placements are nonprofits, with faith-based and university programs

being the most prevalent (Lough, 2006; McBride et al., 2003; Rieffel & Zalud, 2006). A

growing number of corporations and for-profit organizations also sponsor international

volunteering, although the actual prevalence is not well documented (Hills & Mahmud,

2007).

The types of programs sending volunteers overseas are quite diverse, and often

differ dramatically in their activities, objectives, and designs (Allum, 2007). Program

objectives range from providing professional, long-term humanitarian aid and

development to facilitating short-term cross-cultural understanding and exchange among

young or inexperienced "voluntourists" (Sherraden, Stringham, Sow, & McBride, 2006;

TRAM, 2008). Given the great variety of program models facilitating international

service placements, little is known about the actual impacts of international volunteering

(Powell & Bratović, 2006; Sherraden et al., 2008).

Despite substantial differences across international volunteer programs, nearly all

claim that volunteers will increase their *intercultural competence*, or "the ability to

communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge, skills, and attitudes" (Deardorff, 2008: 33). These abilities include understanding others' worldviews, cultural self-awareness, adaptability to new cultural environments, listening and observational skills, general openness to intercultural learning, and the ability to adapt to varying intercultural communication and learning styles (Bennett, 2008; CILT, 2004; Deardorff, 2008; Fantini, 2007; Savicki, 2008b).

These skills are considered increasingly important in today's global marketplace (Barker, 2000; Matveev & Milter, 2004). Individuals with high ICC are often better able to cope with and manage stress (Feldman & Thomas, 1992; Selmer, 1999), are considered more effective leaders (Abbe, Gulick, & Herman, 2007; Mol, Born, Willemsen, & Van Der Molen, 2005), are more self-efficacious (Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005; Palthe, 2004), are often more effective in their job performance (Abbe et al., 2007; Mol et al., 2005), and are considered more empathic to the needs and concerns of others (Leong, 2007; van Oudenhoven & Van der Zee, 2002). Evidence from previous studies shows that intercultural competence is more highly associated with working effectively with those from different cultures than other types of skills and experiences—including cultural and regional knowledge, language proficiency, and previous international experience (Abbe et al., 2007).

Intercultural competence is particularly important for social workers, who are increasingly required to interact with individuals, groups, and communities whose cultures differ from their own. With globalization, social workers are increasingly charged with providing culturally competent services (Fong & Furuto, 2001; IASSW/IFSW, 2005; Weaver, 1999), respecting indigenous methods and practices (Gray

& Fook, 2004; Hochfeld, 2002; Lough, 2009), appreciating cultural and ethnic diversity (K. Jones, 2006; NASW, 2008), and participating in international issues and affairs (Cox & Pawar, 2006; Healy, 2001; Nagy & Falk, 2000). In light of these needs and demands, international experiences may be particularly helpful at developing culturally competent practitioners (Abram, Slosar, & Walls, 2005; Pawar, Hanna, & Sheridan, 2004).

Although scholars once believed that simply having contact with a new culture would be sufficient to increase intercultural awareness, understanding, and competence (Amir, 1969; Gudykanst, 1979; A. Y. Lee, 2001), recent scholarship indicates that only under the right conditions will cultural contact increase one's intercultural competence (Bennett, 2008; CILT, 2004; Deardorff, 2008; Fantini, 2007; Pusch & Merrill, 2008; Savicki, 2008b). The outcomes of cultural contact through international volunteering ultimately depend on the individual capacity of the volunteer, the institutional capacity of programs facilitating the experience, and the nature of the service activity (Perry & Imperial, 2001; Sherraden et al., 2008).

To the extent that programs differ in design, they undoubtedly also differ in the outcomes they produce (Engel, 2006; Sherraden et al., 2008). Specific institutional features such as the length of the service placement, cultural immersion, contact reciprocity, institutional support, guided reflection, and the direction of service (unilateral to multilateral), are used to delineate major differences between institutional models (Engle & Engle, 2003; Sherraden et al., 2006). It is important to understand which features are associated with increased intercultural competence (ICC) because international volunteering may be ineffective or counterproductive under the wrong conditions—leading to increased prejudice, decreased tolerance, and frequent cross-

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cultural misunderstandings (Allport, 1954; Mezirow, 1991; Reiman, Sprinthall, & Thies-Sprinthall, 1997).

This dissertation isolates four variations across institutional models and tests how these differences affect the perceived intercultural competence of volunteers. These variables include service duration, cultural immersion, guided reflection, and contact reciprocity. *Service duration* is defined as the total amount of time volunteers spend in a service activity. *Cultural immersion* refers to the depth of volunteers' involvement and participation in a new culture, which typically increases as individuals establish personal relationships with host community members, and live, work, and study in new cultural environments (Chinn, 2006; Ference & Bell, 2004). *Guided reflection* refers to conversation and dialogue that facilitate the process of self-inquiry and reflection—of critically examining evidence and its relation to one's experience (Johns et al., 2002; Reiman, 1999). *Contact reciprocity* in this context refers to situations where volunteers and host communities profit equally from service activities. Reciprocity emphasizes the importance of mutually shared goals, and matching volunteer activities with local priorities (Pusch & Merrill, 2008; Rockliffe, 2005).

In order to create successful policy and promote effective practices, research is needed to investigate how these variables, among others, affect the outcomes of international volunteering and service. This need is particularly relevant today given recent policy decisions aimed at supporting a greater variety of service models (Quigley, 2008; Robert, Vilby, Aiolfi, & Otto, 2005; Rosenthal, 2008). In the US, for example, recent proposals such as the Abraham Lincoln Study Abroad Fellowship Program, the Paul Simon Foundation Act, and the Global Service Fellowship Program all promote

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public funding to increase and diversify models of volunteer service and study abroad. Under the newly legislated Serve America Act, USAID's Volunteers for Prosperity program recently received $10 million per year through 2014 to support alternatives to the traditional long-term service model ("H.R. 1388," 2009). Discussions are also underway to retool the flagship US volunteer-sending program, the Peace Corps, to recruit and support a wider range of volunteers (Quigley & Rieffel, 2008). While these amendments and new provisions may have many benefits, such as providing greater access to international service for more Americans, the changes resulting from these policy decisions may significantly alter outcomes for volunteers and the communities they serve.

The need to understand how variations affect outcomes is particularly important for social work researchers, who tend to argue for inclusive approaches and greater access to volunteer opportunities (Hong, Morrow-Howell, Tang, & Hinterlong, 2008; McBride & Lough, forthcoming). International volunteerism often includes an intensive time commitment, participation costs, stringent eligibility requirements, and a lower supply of volunteer roles, which may make it less accessible to certain populations (IVPA, 2006; IVR, 2006; Sygall & Lewis, 2006). Therefore, although individuals may have an interest in volunteering internationally, structural barriers may prevent access to these volunteer roles (McBride, Sherraden, & Menon, 2007). As a field that endorses access to volunteer opportunities through structural inclusion and expanded institutional capacity, it is important to understand how the promotion of diverse volunteering models affects desired outcomes. This study contributes to the field by examining new data and

providing evidence-based support for policy proposals and program designs aimed to increase volunteers' intercultural competence.

Key Research Aims

Scholars have long asserted that international volunteering should be encouraged to promote international understanding, shared knowledge across cultures, global engagement, international cooperation, and peace (Angell, 1969; Chilton, 1978; Wofford, 1966). These scholars affirm that, unlike many other types of tourists and travelers, international volunteers are in a unique position to acquire intercultural competence as they experience new cultures firsthand and work side by side with host-country nationals.

Despite these assumptions, previous research indicates that simply interacting with new cultures will not necessarily lead to higher ICC, even when this contact occurs face-to-face and is sustained over long durations (Pettigrew & Tropp, 2006). Contact theory, transformative learning theory, and stage theories of intercultural learning suggest that conditions such as reflecting frequently on new experiences or sharing mutual goals with those in the host culture may amplify the effect of cultural contact on ICC. The primary goal of this research is to examine how variations in cultural contact affect international volunteers' perceptions of ICC. The study tests related hypotheses by pursuing the following two aims:

Aim 1: To understand how service duration, cultural immersion, guided reflection, and contact reciprocity affect international volunteers' perceived levels of intercultural competence.

Aim 2: To test whether guided reflection and contact reciprocity moderate the

relationship between cultural contact intensity (duration and immersion) and

intercultural competence.

Organization of the Study

This chapter provides a general introduction to the study and outlines key research

aims. Chapter two presents an overview of theoretical and empirical research on

intercultural competence. The four independent variables of duration, immersion, contact

reciprocity, and guided reflection are each covered in turn. Chapter two also reviews

additional factors considered relevant to intercultural competence, and presents a

conceptual model that specifies the relationship between each of these variables and

intercultural competence, followed by specific hypotheses.

Chapter three presents the research methods used to test the study hypotheses. It

begins with a description of the research design and the development of the International

Volunteering Impacts Survey (IVIS). This is followed by an explanation of sampling

procedures, management of human subjects, power analyses, and administration of the

IVIS to returned volunteers. The chapter also describes how research concepts are

measured and created using principle component analyses (PCA) and related data

reduction procedures. It further outlines data analysis procedures and the use of

hierarchical multiple regression to examine the nature of relationships among the key

concepts. Finally, the chapter explains how univariate and bivariate assumptions and

missing data procedures were used to prepare the data for analysis.

The fourth chapter presents the research results of the three step hierarchical

regression. It describes the process of eliminating non-significant interactions from the

model and presents the results of a parsimonious hierarchical regression. Correlations between all variables are depicted, along with charts and diagrams to visually illustrate the effects of moderating variables on intercultural competence. The chapter ends with a summary of research hypotheses based on the interpretation of findings.

The final chapter discusses practical implications of the research results for policy and practice. Strengths and weaknesses of this study are presented, along with limitations on the validity and generalizability of these findings. The chapter ends with a modest accounting of how this study contributes to research in the field and recommends suggestions for future research.

CHAPTER II: THEORETICAL AND EMPIRICAL REVIEW

As a highly practice-based field, the majority of research on international volunteering is based on program evaluations, which are primarily interested in understanding the merits or deficiencies of a specific volunteer program. Current research on IVS rarely provides theoretical grounds to expect a specific outcome. Fortunately, there is a strong programmatic connection between IVS and other practices that utilize experiential learning to increase intercultural competence and that have a stronger theoretical base.

Research on international experiential learning is contained in four main bodies of work, each separated by rather minor conceptual and practical differences. These areas include international volunteering, international service-learning, study abroad, and international exchange or internships. Researchers of IVS have failed to connect these bodies of research in the past due to slight differences, including the seemingly "non-voluntary" components of service-learning, study abroad, and internships (Davis Smith, 2004).

Service-learning and internships are occasionally judged as non-voluntary because they are considered a required and integrated part of coursework. Indeed, this distinction may be important for empirical research because the voluntary aspects of service may have a significant effect on motivations and outcomes (Bandow, 1990; Eyler, Giles, & Braxton, 1997). In addition, service-learning experiences typically prepare students for international experiences with a core set of knowledge and skills, and

provide continued support and supervision, where international volunteering programs may or may not provide this support.

Despite these differences, IVS does share common theoretical ground with service-learning and other experience-based international placements (Furco, 1996; Mooney & Edwards, 2001). Each of these areas emphasize that participants will learn valuable skills as they engage in international experiences. By interacting with situations in new environments, students observe and experience problems, reflect-on how to solve these dilemmas, and apply their new knowledge in action (Abram et al., 2005).

Service-learning and IVS are particularly comparable because experientially-based *service activities* are expected to provide greater personal transformations over other non-service activities. In theory, when an individual is placed in a real helping role, the new experience is particularly effective at stimulating the type of empathic and "perspective-taking" learning that is required for intercultural competence (Dewey, 1963; Reiman, 1999). In addition, service-learning placements may be considered voluntary, as students are often free to choose whether or not they wish to engage in service as they study internationally.

Given the commonalities between service-learning and IVS in experiential learning, research on IVS can benefit significantly by drawing on service-learning literature. Only a few studies of international volunteering include a theoretical explanation predicting *why* variations may affect service outcomes. In contrast, research on international service-learning is more developed, both empirically and theoretically than research on IVS. The following section more closely articulates these ideas and

offers an introduction to theoretical and empirical research relevant to various predictors of intercultural competence.

Theoretical Background

Intercultural competence is a skill that is learned and developed through experiential contact with new cultures. In this sense, international volunteering provides a context for experiential education. Experiential learning strategies are traditionally based on the theories of John Dewey. According to Dewey, knowledge is best learned and applied when it is gained through direct experience in real-life situations (Dewey, 1933, 1963; Hironimus-Wendt & Lovell-Troy, 1999). By interacting directly with situations in their environment, individuals are able to observe and experience problems, reflect on ways to solve these dilemmas, and apply their new knowledge through action.

George Herbert Mead also asserted that educational growth occurs through meaningful role-taking (1934). As individuals engage in human-helping roles such as teaching, tutoring, casework, social support, and other tasks that international volunteers frequently perform, they gain a greater capacity to set aside their ego, thereby improving their ability to look at problems from multiple perspectives (Mead, 1934; Reiman, 1999). These theories indicate that, compared to other non-service-based international experiences, volunteering in a new culture may be particularly effective at enhancing intercultural competence.

Additional theories explain how programs can use the "process" of volunteering to increase intercultural competence. This section summarizes theory related to four main variables that may affect intercultural competence including duration, immersion, guided reflection, and contact reciprocity. These theories help explain why service characteristics

may affect outcomes differently. They also provide the groundwork upon which directional hypotheses are shaped.

Duration

On the most basic level, if cultural contact is a precursor to achieving greater intercultural competence, then more contact is preferred. Repeated contact may make intercultural experiences more comfortable, may reduce anxiety, and can lead to greater acceptance of foreign cultures. Social identity theory posits that greater exposure to a cultural out-group widens opportunities for self integration into external cultural membership, and ultimately leads to greater understanding and acceptance of the out-group culture (Turner, 1982). Likewise, contemporary contact theory and social learning theories stress that the longer volunteers serve with community members and work with host-organization staff, the greater likelihood they will converge on superordinate shared goals (Pettigrew & Tropp, 2006), and the greater the likelihood that they will experience a level of anxiety necessary to stimulate cultural learning (Engle & Engle, 2003; Pitner, 2007).

Duration is also an important component of stage theories of cultural growth and learning. These theories suggest that volunteers must move through various stages of anxiety and acceptance before they can reach a high level of intercultural competence. Lysgaard explains the process of overcoming culture shock in terms of four stages: euphoria, disillusionment, adjustment, and integration (1955). Ogberg also describes four stages of stress and coping but he terms these stages: honeymoon, crisis, recovery and adjustment (1960). Both of these models emphasize that stress and anxiety are necessary precursors to cultural learning, and that time is required to move through these stages of

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stress and growth. These theories are consistent with Dewey's experiential learning theory, which states that in order for experiences to be beneficial educationally, they must be lengthy enough for people to resolve problems over time (Dewey, 1963; Giles & Eyler, 1994).

This is not to say that intercultural learning can only occur over the long term. Building largely off of these earlier theories, Kim (1995) proposed a stress, adaptation, growth model that emphasizes the importance of a *continuous* process of intercultural growth. In harmony with earlier stage theories, as well as experiential learning theories (Dewey, 1963; Kolb, 1984), Kim and Ruben's general systems theory of intercultural transformation explicitly conveys the importance of time to move through various stages of cultural learning but emphasize that longer terms simply lead to greater effects (Kim & Ruben, 1988). This theory may help explain why volunteers who experience cultural contact for the first time often have dramatic reactions, and why they frequently describe these experiences as "transformational" even in the short term. Likewise, this may help explain why individuals who have a high degree of previous international experience may experience a less dramatic effect following international service.

Immersion

When volunteers are immersed in a culture, living with host families and serving side-by-side with community members, they are brought into direct contact with the host culture. As volunteers serve on the ground, they may be perceived as having more equal status than volunteers who live in a separate residence, who receive high wages, or who fail to speak the native language (Devereux, 2008; Pusch & Merrill, 2008). Under the right conditions, increased contact with others provides more accurate information about

others, which can decrease tension, prejudice and stereotypes (Pettigrew, 1998; Turner, 1982). Increased exposure to a host culture also enhances the likelihood that volunteers will identify closely with the host culture. Consistent with social identity theory, this cultural re-identification leads to greater understanding and acceptance of the out-group culture (Tajfel & Turner, 1979; Turner, 1982).

Cultural immersion is considered a key "intensity factor" that accentuates the outcomes of intercultural experience (Paige, 1993). International volunteers who have direct and intimate communication with those in the host culture, including close friendships, romantic encounters, and relationships with host families may have more intense intercultural experiences and greater opportunities to experience culture shock and subsequent adaptation (Brislin, 1981; Hammer, Gudykanst, & Wiseman, 1978). Stage theories of cultural adaptation emphasize the importance of culture shock, and stress that immersion in a host culture creates a degree of psychological isolation and anxiety that encourages cultural learning (Ogberg, 1960).

Guided Reflection

Although longer duration and greater immersion of a volunteer placement typically increases opportunities for repeated exposure to a culture, mere exposure to the culture may not be sufficient to increase intercultural competence. It is believed that volunteers who reflect on their new experiences may increase their degree of ICC (Reiman et al., 1997). This reflection should ideally be guided by those who have a good understanding of intercultural dynamics (Bennett, 2008).

As previously described under theories of culture shock, when volunteers confront new cultural realities, they often experience cultural disequilibrium or

"disorienting dilemmas" that contradict and significantly challenge previous beliefs. According to Jack Mezirow's Transformative Learning Theory (1991), this disequilibrium leads to "transformative learning", which "refers to the process by which we transform our taken-for-granted frames of reference (meaning perspectives, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true" (Mezirow, 2000: 7).

These open *frames of reference* share many conceptual similarities with central components of intercultural competence (Deardorff, 2008). Mezirow assumes that understanding is framed within cultural assumptions, and that transforming these perspectives requires a revision of the structures that give meaning to experience (Dirkx, 1998). According to transformative learning theory, these perspectives are changed as individuals attempt to accommodate radically different experiences through critical reflection on these experiences. Critical reflection cognitively challenges the "assumptions upon which interpretations, beliefs, and habits of mind or points of view are based" (Mezirow, 1997: 7). A reflective appraisal of previous beliefs and assumptions leads to paradigm shifts that generate greater intercultural competence; including perspective-taking, empathy, adaptation, an inclusive world-view, contextual relativism, and other intercultural competency skills (Dirkx, 1998; Hammer, 2005; Humphrey, 2007; Mezirow, 1996; Taylor, 1994).

Whether an individual decides to reject or accept the new experience, and thereby transform their meaning perspectives, often depends on rational discourse to explore new roles and actions over time through guided reflection (Dirkx, 1998; Taylor, 1998).

Although reflection in isolation may help volunteers make sense of new experiences, without guided reflection volunteers may incorrectly conceptualize host-community members as the unlucky "others", thereby increasing in-group mentalities and ethnocentric viewpoints (Simpson, 2004). Discourse with those who have related experience and knowledge helps to guide the rational process and challenge previous beliefs. The idea of guided reflection has recently been promoted widely in the area of service-learning (Crabtree, 2008; Grusky, 2000; Kiely, 2005; Pusch & Merrill, 2008; Quiroga, 2004).

Guided reflection may be most influential for those in the initial phases of culture shock, when cultural differences are most tangible (Ward, Bocher, & Furnham, 2001). Reflection is crucial to regaining equilibrium when *disorienting dilemmas* such as culture shock are most acute (Mezirow, 1991). On the other hand, reflecting on new cultural experiences and changing meaning perspectives often requires time to explore new assumptions, roles, relationships, and actions (Kim & Ruben, 1988; Taylor, 1998). Consequently, volunteer experiences lasting a few weeks or months may be too short to show significant "transformative" outcomes. Longer periods across borders open more opportunities for cultural contact, which, if reflected upon in the right context, can lead to more inclusive meaning perspectives—a critical element of intercultural competence.

Contact Reciprocity

Allport's (1954) intergroup contact theory states that increased contact between diverse groups helps to reduce inaccurate perceptions of the "other", thereby increasing intergroup tolerance and understanding. However, merely bringing diverse peoples into

common space is not always a sufficient condition to guarantee that intergroup learning will occur, especially among those who may hold strong views (Amir, 1969).

Contact theory suggests that intercultural competence is more likely when the following four conditions are met: 1) volunteers and community members have equal status, 2) they have shared goals, 3) they experience no significant competition, and 4) authorities, laws, and customs sanction the contact. When these conditions are met, ethnocentricity, and prejudice will be reduced and intercultural competence will be enhanced. Contemporary contact theory suggests that while these conditions may not be *essential* for intercultural learning, positive outcomes are more likely to occur when these conditions are met (Pettigrew & Tropp, 2006).

By definition, interculturally competent individuals appreciate and practice equalitarian, reciprocal sharing between cultures. Therefore, volunteers fail to practice ICC when they approach a service experience with a paternalistic approach or with goals that are not shared by the host organization or community (Crabtree, 2008). In this sense, volunteers who engage in reciprocal activities are more likely to recognize the contribution of distinct cultures, local contexts, and indigenous approaches—all important dimensions of intercultural competence (Porter & Monard, 2001).

In congruence with contact theory, increased intercultural understanding can also be enhanced as volunteers cooperate with community members to achieve shared or superordinate goals. This idea was first proposed by Muzafer Sherif following his experiments with intergroup relations (Sherif, 1958). When goals are shared by diverse groups, and both parties work together to reach a desired aim, "friendship preferences shift from almost exclusive preference for in-group members toward increased inclusion

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of members from the 'antagonists' " (pg. 353). Shared goals tend to produce friendly attitudes, mutual understanding, and increased tolerance towards out-group members, their ways of life, and cultures (Ting-Toomey, 1999).

Empirical Evidence

In the pursuit of hypotheses linking service outcomes with service characteristics, it is helpful to know what previous research reveals about the empirical effects of international volunteering on intercultural competence. While there is a fair amount of empirical research of international service-learning outcomes on students, there is significantly less on the effects of international service overall on volunteers (Sherraden et al., 2008; Waterman, 1997). Research has not kept pace with the growth of international volunteering and service as an emergent international institution (Davis Smith & Ellis Paine, 2007; McBride, Sherraden & Menon, 2007; Sherraden et al., 2008). As suggested by a recent review of literature, there is a "clear need for robust research in this area" (Machin, 2008: 14). Because of the paucity of research on international volunteering, this section reports on studies related to both IVS and service-learning.

In reviewing this research, it is important to acknowledge that service-learning may not be considered international volunteering to the degree that these experiences are a required element of coursework. In the strictest definition of the term, volunteering should, by definition, be uncompensated and performed with free will (Davis Smith, 2004). While perhaps not directly comparable, the field of service-learning can provide rich information about plausible empirical advantages and disadvantages of individual, institutional, and service characteristics on outcomes.

Duration

Few empirical studies on international volunteering have examined how variations in the length of placement may affect service outcomes. However, in studies where these effects are measured, cross cultural understanding was reported to be more achievable if length of the placement was extended (CVO, 2007; Sherraden & Benítez, 2003). Studies on service-learning and study abroad have been more prolific. Students' intercultural growth, intercultural development, and cross-cultural competence were significantly correlated with duration of the experience (Akande & Slawson, 2000; Dwyer, 2004; Hoff, 2008; Ingraham & Peterson, 2004; Medina-López-Portillo, 2004; Reiman et al., 1997). In one study measuring the effects of service-learning on cross-cultural adaptability, periods of one-month or less did not produce significant results, while longer stints abroad resulted in significant cross-cultural adaptability (Erwin & Coleman, 1998). Although short stints rarely produce significant effects, one academic semester, or around three months may be adequate for achieving measurable progress in intercultural competence (Myers-Lipton, 1996).

Duration of the experience has also been highly correlated with long-term relationships with host-country nationals (Dwyer, 2004). This finding is significant because the development of long-term relationships with people in the host culture is strongly correlated with intercultural competence (Taylor, 1994).

When volunteers engage in a helping role, the volunteer experience is often effective at encouraging empathic, perspective-taking learning required for intercultural competence (Reiman, 1999). Length of the placement may, in fact, be more important than the number of hours volunteers engage in the service task. When service tasks are

paired with guided reflection, significant learning may occur even with the "low role-taking" experiences, defined as only serving a couple hours a week (Exum, 1980). Low role-taking experiences may be as effective as serving for 20 hours or more per week (Exum, 1980; Reiman et al., 1997). The issue of high role-taking vs. low role-taking for volunteers is an important consideration for defining cultural contact duration, as volunteers are often required to engage in the placement full-time (McBride et al., 2003: 28).

Immersion

The effectiveness of cultural contact on intercultural competence is often correlated with cultural immersion related to housing arrangements and work contexts (Engle & Engle, 2003). Growing evidence suggests that volunteers improve their skills at interacting with others in cross-cultural settings when they are immersed in a host culture—particularly when they have prolonged exposure to the host culture (Battersby, 2002).

Closer interaction with the community is also associated with increased language skills and cultural training (Cohn & Wood, 1985). Likewise, frequency and friendliness of social interactions tend to increase with closer proximity to smaller villages and living arrangements with host country persons (Cohn & Wood, 1985). As additional studies have demonstrated, this factor is correlated with length of service and reciprocity; those living in a community for four months or longer are more likely to live with host-country nationals and are more likely to experience cultural dilemmas over time (Battersby, 2002; Dwyer, 2004; Engel, 2006).

Consistent with transformative learning theory, the degree of anxiety or cultural disequilibrium that volunteers experience depends partly on the intensity of their contact with a foreign culture (Mezirow, 2000). Individuals who engage directly in projects across borders often cite culture shock or "cultural disequilibrium" as a catalyst for change that challenges previous beliefs and meaning perspectives (Kim & Ruben, 1988; Taylor, 1994; Ward et al., 2001). Returned international volunteers and students participating in service-learning programs who live and work closely with community members often refer to this "transformative" change of perspective (Abram et al., 2005; Grusky, 2000; Hunter, 2008; Kim, 2001; Taylor, 1998) as "turning points" in their lives (Machin, 2008; Starr, 1994).

Guided Reflection

Reflection is considered an important component of psychological growth and learning (Boud, Keogh, & Walker, 1985), and the key process by which thoughts are changed and growth is achieved (Mezirow, 1996). Previous studies indicate that new experiences or role-taking without paired reflection rarely result in substantial learning or development (Exum, 1980; Sprinthall & Scott, 1989).

Guided reflection is considered particularly important to achieve educational outcomes (Hoff, 2008; Reiman et al., 1997). Hypothetically, when reflection occurs systematically over time, it can increase intercultural understanding and decrease prejudice, particularly when this reflection is guided by a mentor, community member, or organizational staff member. In a study of service-learning, control groups that did not integrate reflection and discussion into their placements showed no improvements, and were increasingly negative and judgmental (Reiman et al., 1997).

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In a study commissioned by Volunteer Service Overseas (VSO), returned volunteers rated the importance of "reflection on practice" more frequently than any other condition for their professional development during the international placement (Unterhalter, McDonald, Swain, Mitchell, & Young, 2002). In cases where VSO volunteers did not identify reflection as an integral process to their development, researchers attributed this to a lack of "appropriate guidance and support" (p. 16). Additional studies assert that students need mentors to encourage guided reflection to assist in cultural adaptation (Bacon, 2002; Engle & Engle, 2003).

Reflection is also important for psychological growth in domestic service. Research found positive outcomes when community service was paired with reflection, but not when reflection was absent (Boss, 1994). Consistent with transformative learning theory, strong emotions such as guilt may encourage critical reflection (Taylor, 1994). Cultural disequilibrium accompanied by guided reflection is capable of turning culture shock into cultural learning (Bennett, 2008). International volunteers report that, with their first encounter of extreme poverty, they often experience a sense of "guilt" which, when reflected upon, leads to constructive "life altering" and "transforming experiences" (Abram et al., 2005).

Contact Reciprocity

Many studies have supported the assertions of contact theory. A recent meta-analysis of 515 studies with 713 independent samples found that, when Allport's contact conditions are met, cultural contact does result in a reduction in prejudice (Pettigrew & Tropp, 2006). In order to achieve these results, however, these conditions should be packaged as an interrelated bundle, not as independent qualities (Pettigrew & Tropp,

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2006). As a result, these qualities are conceptualized together in this study as a composite variable entitled "contact reciprocity". The concept of reciprocity, or mutually shared goals, has a growing body of research in the field of service-learning (Pusch & Merrill, 2008). Individuals and institutions that fulfill the conditions outlined in Allport's theory improve reciprocity between volunteers and host communities, and reduce chances that prejudice will occur through contact (Amir, 1969; Pettigrew & Tropp, 2006).

These findings do not necessarily assert, however, that fulfilling contact theory's conditions is necessary for greater intercultural understanding. The "mere exposure" effect maintains that intercultural competence may also increase through repetitive exposure to a culture (Pettigrew, 1998; Zajonc, 1998). Mere exposure asserts that the more frequently individuals are exposed to others, the more they come to like them. In this sense, it may be possible to achieve greater intercultural competence, even when the initial cultural contact is adverse or disliked (A. Y. Lee, 2001; Zajonc, 1998).

In contrast to the mere exposure effect, some research on intergroup contact theory suggests that when Allport's conditions are not met, intergroup tensions, animosity, and prejudice may actually increase (Amir, 1976). Despite the possibility that mere contact alone may decrease intercultural understanding, the bulk of empirical research suggests that conditions of contact reciprocity are not *necessary* for intercultural understanding but do help to foster it (Pettigrew & Tropp, 2006).

Additional Factors

While this study mainly considers the effects of the four variables detailed above, a range of other factors have been considered relevant for intercultural competence in scholarly research (Hoff, 2008; Sutton & Rubin, 2004; Taylor, 1994). Individual

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characteristics and capacities such as skills and experience (Cohn, Wood, & Haag, 1981; CVO, 2007), individual attitudes and predispositions (Kim, 1995), expectations (Hoff, 2008), and previous international experiences help prepare volunteers with "learning readiness", and function as important precursors to change (Taylor, 1994). Culture shock, stress, and intense emotions, which typically precede intercultural learning, are muted by previous international experience and language, and are intensified by minority race and differences in sex roles across cultures (Taylor, 1994). Frequency and friendliness of social interactions with those of other cultures are also found to increase with age (Cohn & Wood, 1985).

Scholars studying international volunteering and service-learning list a range of additional institutional factors that may also make the intercultural experience more or less intense for volunteers. These factors including supervision, in-country support, quality of pre-departure preparation, the size and complexity of the organization, group status, and overall program management (Amir & Garti, 1977; Hoff, 2008; A. Jones, 2005; Paige, 1993; Pusch & Merrill, 2008; Vian, Richards, McCoy, Connelly, & Feeley, 2007).

Because the effect of these individuals and institutional characteristics on intercultural competence is not the main focus of this study, these additional factors are not discussed in great detail. However, these data are included as control variables in statistical modeling when available.

Conceptual Model

The following conceptual model suggests that intercultural competence depends on the nature and intensity of cultural contact experienced during the international

volunteer placement. Duration, cultural immersion, guided reflection, and contact reciprocity may directly increase volunteers' intercultural competence (Aim 1). However, it is also possible that guided reflection and contact reciprocity moderate the intensity of contact, and alter the effects of contact intensity on ICC (Aim 2). The degree of intercultural competence resulting from this contact may vary by guided reflection on these experiences during (or after) the interaction, as well as contact reciprocity between volunteers and host community members (see Figure 1).

Figure 1: Effect of service characteristics on intercultural competence
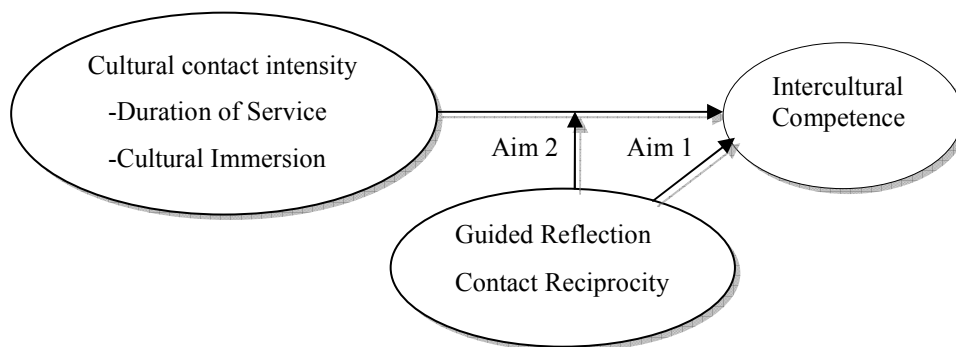
This study assesses the relationship between these variables and ICC by first testing the main effects of duration, immersion, reflection, and reciprocity on ICC; followed by a test of the moderating effects of reflection and reciprocity on the relationship between cultural contact intensity and ICC.

Research Hypotheses

Hypothesis 1: Volunteers serving for longer durations will report higher levels of intercultural competence.

Long-term engagement with the host-community typically increases opportunities for cultural contact. Increased cultural contact may enhance intercultural competence by allowing volunteers to learn more about the host culture, language, and customs. Long-term volunteers also have greater potential to build trust, rapport, and networks with community members and organizations, which are all associated with greater intercultural competence (Taylor, 1994).

Hypothesis 2: Volunteers more immersed in the host-culture will report higher levels of intercultural competence.

Cultural contact is typically intensified as volunteers live and work directly with host-community members. Through consistent intercultural interaction, volunteers and community members are more likely to mutually transmit their values and beliefs (Pitner, 2007). Shared beliefs with an out-group culture often result in greater identification with the out-group and a respect for their culture and beliefs (Turner, 1982). Understanding and respect for different cultures is a critical component of intercultural competence (Deardorff, 2008).

Hypothesis 3a: Volunteers reporting higher guided reflection will report higher levels of intercultural competence.

Reflection is the key process by which thoughts are changed and growth is achieved (Mezirow, 1996). Poor capacity for reflection has the potential to "lock in prejudices and ethnocentric views" following cultural contact (Savicki, 2008a: 76), leading to less tolerance and poor intercultural understanding (Simpson, 2004). When reflection occurs systematically over time, it can increase intercultural understanding and

decrease prejudice (Reiman et al., 1997). While personal reflection is necessary for learning, guided reflection is particularly helpful. Without guided reflection, volunteers may interpret relevant social justice issues as simple unlucky happenstance, and may continue to view host-country nationals as an unfortunate "others" in a strange and unfamiliar culture (Simpson, 2004).

Hypothesis 3b: Guided reflection moderates the relationship between cultural contact intensity and intercultural competence.

Assuming that guided reflection increases volunteers' intercultural competence, it may have a greater effect on volunteers in the first few weeks or months of service, when culture shock is at its peak (Ward et al., 2001). During this initial "shock" phase, when cultural differences are most palpable, individuals may be more likely to reflect highly on their experiences and engage in reflective dialogue with others (Ogberg, 1960). On the other hand, volunteers more immersed in the host culture, and serving for longer durations, may gain increased language and communication skills, which would allow them to participate in more meaningful reflective dialogue with local staff and community members over time. Therefore, the moderating effects of guided reflection could be perceived in two ways—as most influential during the first few months of volunteering, or as a catalyst that multiplies the effects of service duration on ICC.

Hypothesis 4a: Volunteers reporting greater contact reciprocity will report higher levels of ICC.

Cultural understanding based on interactions between volunteers and community members is likely enhanced under conditions of equal status and mutually shared goals

(Allport, 1954). When these conditions are met, common understanding, cultural acceptance, and tolerance are likely to increase (Pettigrew & Tropp, 2006). On the other hand, when these conditions are not met, the potential to reduce conflict can be significantly hampered (Dovidio, Gaertner, & Kawakami, 2003).

Hypothesis 4b: Contact reciprocity strengthens the relationship between cultural contact intensity and intercultural competence.

Greater immersion and increased duration of exposure to a new culture may lead to increased intercultural competence. However, under conditions of significant competition between groups, greater exposure may actually lead to increased tension and prejudice (Brewer, 1986). The association between increased cultural exposure and increased intercultural competence may depend partially on the conditions of exposure. In this case, it is hypothesized that mutually shared goals based on demand-oriented services will multiply the effects of immersion and duration on intercultural competence. The following chapter describes the study methods used to test these relationships.

CHAPTER III: STUDY METHODS

To test the study hypotheses, this research uses cross-sectional design to collect data on returned volunteers using the International Volunteering Impacts Survey. Analyzing data from this survey, a hierarchical multiple regression tests the significance of relationships between intercultural competence and the independent variables. This chapter outlines details of the research design, instrumentation, sampling procedures, and administration of this survey. It also covers concept measurement and describes how the survey data is used to test the study hypotheses.

Research Design

In 2008, a survey was administered using a comparative, quasi-experimental design with matched comparison groups. This survey, called the International Volunteering Impacts Survey (IVIS), is a primarily close-ended, quantitative survey developed to assess volunteer impacts over time. In summer 2008, the survey was administered electronically to: (1) volunteers (pre-test baseline); (2) comparison non-volunteers (pre-test baseline); and (3) returned 2002 and 2006 volunteer alumni.

The larger project follows a longitudinal design. Early in 2010 a post-test survey will be administered to volunteers that participated in the pre-test a year earlier. However, due to the time-lag required to receive results from returned volunteers, the current study does not utilize these longitudinal data. This study only uses retrospective, cross-sectional data from returned volunteers that served during 2002 and 2006.

Instrumentation

The International Volunteer Impacts Survey (IVIS) was designed to help build a comparative evidence base on international service. The survey is thoroughly grounded in research assessing the effects of international volunteering and service on volunteers. It assesses outcomes of international volunteering on international contacts, open-mindedness, intercultural competence, international understanding, intercultural relations, global identity, social skills, life plans, civic activism, community engagement, media attentiveness, and financial contributions (Lough, McBride, & Sherraden, 2009).

No standardized instruments are currently administered across IVS programs and contexts (Daniel, French, & King, 2006; Dingle, Sokolowski, Saxon-Harrold, Smith, & Leigh, 2001; IVR, 2004). The instrument was developed to fill the need for measurement tools that can be administered to various groups over time. However, the IVIS is still being tested for validity and reliability. Although factor analyses and reliability indicators were completed on this instrument (Lough et al., 2009), more rigorous tests still need to be conducted. Despite these limitations, the IVIS is currently the only known instrument related to international volunteering designed to assess effects on both volunteers and comparison non-volunteers over time. The IVIS also includes indicators for multiple independent variables, which are necessary to test the hypotheses proposed in this study.

Description of Study Sites and Samples

This survey incorporates respondent samples from two service models that differ across key characteristics. In a recent article summarizing various study-abroad models, Engle and Engle (2003) propose a classification of program types based on seven primary constructs including: length of the placement, entry target-language competence,

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language used in course work, context of the academic work, student housing type, provision for cultural interaction, and guided reflection. This classification system categorizes programs into one of five main types entitled: Study Tour, Short-Term Study, Cross-Cultural Contact, Cross-Cultural Encounter, and Cross-Cultural Immersion. This system was designed to categorize study-abroad programs, and is not directly comparable to international programs. In consideration of minor differences between study abroad and IVS programs, study tour was reclassified as *voluntourism*—a similar conceptual classification to a study tour program in study abroad literature. Using this adapted category of this classification system, the two programs used in this study generalize well to Engle & Engle's classifications (see Table 1).

Table 1: Volunteer program model classifications

	Intercultural competence				
	Model Classification				
Program Component	*Voluntourism*	*Short-term Volunteerism*	*Cross-Cultural Contact*	*Cross-Cultural Encounter*	*Cross-Cultural Immersion*
Duration	A few days to a few weeks	3-8 weeks	2-4 months	4-8 months	8 months or longer
Entry target-language competence	Poor to elementary	Poor to intermediate	Elementary to intermediate	Pre-advanced to advanced	Pre-advanced to advanced
Immersion: Housing	Collective with home nationals	Collective and/or home stay	Collective and/or home stay	Home stay rental or integration home stay	Individual integration home stay
Contact reciprocity	Low reciprocity: goals largely based on volunteer priorities or abilities	Low reciprocity	Medium reciprocity: goals limited by vol. abilities but consistent with host org.	Medium to high reciprocity	High reciprocity: volunteers and hosts have mutually shared goals

			needs		
Guided reflection	Little to none	Orientation program	Orientation, guided support encourages reflection	Orientation, ongoing guided support encourages reflection	Structured orientation, on-going support, reflective writing and dialogue
*Adapted from: Engle, J., & Engle, L. (2003). Study abroad levels: Toward a classification of program types. *Frontiers, The Interdisciplinary Journal of Study Abroad, 9*, 1-20.					

Cross Cultural Solutions represents the Voluntourism model (two weeks or less) and the Short-Term Volunteering model (three to eight weeks), and WorldTeach represents the Cross-Cultural Contact model (summer program) and Cross-Cultural Immersion model (year-long program). This study compares intercultural competence outcomes across these institutional classifications, which differ on the four independent variables used in this study.

Cross Cultural Solutions

Cross-Cultural Solutions (CCS) is a non-profit, international volunteer-sending organization that has offices in four countries and currently employs more than 300 staff members worldwide. Founded in 1995, the organization has facilitated placements of over 15,000 multinational participants serving in ten countries and currently places over 3,000 volunteers each year.

CCS offers three types of programs: Volunteer Abroad, Intern Abroad and Insight Abroad. The Volunteer Abroad and Intern Abroad programs are individualized placements ranging from 2-12 weeks, with an average placement of four weeks. These programs are relatively similar except that Intern Abroad offers some options for study abroad coursework credits. Insight Abroad is a group-based program designed to accomplish a development-related project during a one week placement. Greater than 80

percent of placements serve under the Volunteer Abroad program. This study randomly sampled volunteers across each of these programs.

The majority of CCS volunteers come from the United States (83 percent), while the remaining volunteers have origins in other English-speaking countries including the UK, Canada, and Australia. Although the age range of participants varies widely (from 8 to 83 years), 70 percent of volunteers are age 25 or younger. Volunteers are mostly female (80 percent), and many are students (greater than 40 percent). These volunteers typically travel as individuals, and stay abroad for approximately 3.8 weeks on average.

Operationally, CCS volunteers provide direct care to individuals in childcare centers, homes for the elderly, schools, health clinics, centers for people with disabilities, or other community organizations that request extra hands. Volunteers usually travel and serve alone, although groups may also volunteer together. They typically serve in local social service agencies for an average of 20 hours per week. Volunteers typically live in urban settings and board at a "home base" together with other volunteers. Incoming volunteers receive a one-day in-country orientation and the benefit of continued support from full-time field staff that encourage reflection. Volunteers are also provided with opportunities to experience cultural traditions and customs including language classes, music, and dancing lessons. Volunteers pay a program fee to cover the cost of facilitating these placements.

WorldTeach

WorldTeach is a non-profit, non-governmental organization based at the Center for International Development at Harvard University. WorldTeach was founded by

Harvard students in 1986, and has since placed thousands of volunteer educators in communities throughout Asia, Latin America, Africa, Eastern Europe and the Pacific.

As a prominent volunteer sending organization in the United States, WorldTeach is a unilateral sending program that provides volunteer opportunities for short and long-term placements. WorldTeach's long-term "year programs" are 10-12 months in length, while the shorter-term "summer programs" are about two months in length. Seventy percent of WorldTeach volunteers serve in the year programs for ten months or more. They currently have about 300 year-long volunteers and 125 summer-long volunteers. This research primarily samples WorldTeach year-long volunteers although a small representation of respondents also served as summer volunteers.

WorldTeach currently operates the 10 to 12 month program in eleven countries. Volunteers participating in the year program must have a Bachelor's degree or higher. The two-month summer programs operate in six countries and the program is open to undergraduates that have not yet completed degree requirements, although all volunteers must be older than 18 years. Volunteers apply for the country in which they wish to serve. WorldTeach provides extensive teaching and language training in-country and no prior teaching or foreign language experience is required. However, WorldTeach screens applicants carefully and has a very competitive selection process. While the acceptance rate varies from program to program, it is approximately 80-90 percent.

WorldTeach volunteers teach in a variety of educational settings including elementary, high school, college, and adult education centers. Volunteers work as full-time teachers, and as employees of their host organization or sponsoring institution in the placement country. Most volunteers teach English, although responsibilities also include

math, science, information technology, environmental education and HIV/AIDS awareness. All WorldTeach volunteers must be native English speakers. Most volunteers live with a host family or in teacher housing on the school campus, and participate fully in the life of their host community. Volunteers live in both rural and urban settings

Volunteers receive one-month in-country orientation training prior to departure and the support of full-time field staff. Once they are placed in the host community, they rarely have contact with program staff—though they do interact regularly with school teachers and administration. It may be difficult for new volunteers to be guided in reflection with program staff, however, as volunteers often have low host-country language capacity, and staff rarely speak English.

In conjunction with the hosting educational organization, WorldTeach arranges the teaching placement and housing, and also international travel, visas, health insurance, and training. Volunteers pay a program fee to cover the cost of these services. A substantial portion of the volunteer fee is covered by the hosting governmental organization.

Sampling Procedures

As mentioned previously, researchers sampled departing volunteers, comparison non-volunteers, and returned volunteers. Because this study only utilizes the returned volunteer (alumni) data, this section outlines how participants within this third group were sampled and chosen for inclusion in this study. The alumni sampling frame includes all volunteers that served during the years of 2002 or 2006. Due to the expectation of outdated contact information, researchers randomly sampled 350 individuals from each organization—anticipating that surveys would reach at least 250 potential respondents,

with a response rate of at least 60 percent (N = 150). Because this survey was administered online, researchers only included alumni with an email address on-file in the sampling frame.

CCS located 4103 volunteers who served during 2002 or 2006. Of the 1,183 alumni serving in 2002, they only located contact information for 265 (22 percent) of individuals. For 2006, however, 2,906 alumni (99.5 percent) had email addresses on file. Among those with email addresses listed, 175 alumni were randomly chosen for each year to achieve the total target sample of 350 volunteers per organization.

WorldTeach located 381 of 526 volunteers that served during 2002 or 2006 with an email addresses on file. Of the 381 volunteers with contact information, 103 served during 2002 and the remaining 278 served during 2006. Consequently, all 2002 alumni were included in the sampling frame and the remaining 247 were randomly chosen from among the 2006 alumni using SPSS statistical software. The 2006 alumni are thus overrepresented in the WorldTeach sample.

Management of Human Subjects

Prior to administering the IVIS, approval was obtained from the Washington University Human Research Protections Office. Written documentation of consent was waived because the survey was administered online. In the emailed letter of invitation, potential participants were directed to a webpage prior to the start of the survey to access an electronic study information page. If participants chose to participate in the online survey, they clicked on a consent box to acknowledge they had read the study information and indicated willingness to participate in the survey. Participants were only allowed access the survey page after they checked the consent box.

This study involved rigorous standards for data security and privacy. However, as with all electronic communications, potential risks of system breeches were a possibility. Respondents completed surveys with some identifying information because a unique email was necessary for longitudinal follow-up. Consequently, survey data was stored on a secured server and was password protected. Only researchers with a secure password had access to the data. All data were collected and managed on a secured server.

There were minimal additional risks for survey respondents. Survey completion may have caused fatigue or boredom for respondents, or may caused respondents to feel frustration towards the volunteer-sending program due to the volume of paperwork they were asked to complete. There were no direct benefits for survey respondents. However, findings from this study inform program development and improvements, thereby potentially enhancing respondents' future international service experiences.

Survey Administration

The IVIS was administered electronically using QuestionPro survey software. Researchers sent email invitations to returned volunteers during the month of July 2008 with a link to the survey page. Respondents submitted all responses online. Researchers sent two reminder emails to non-respondents, each spaced one-week apart. After two repeated electronic attempts, a researcher followed-up with up to two phone calls. Researchers made at least five total attempts to solicit survey responses over the course of two months.

As an incentive for participation, respondents were offered three choices on how to use a $10 donation for each survey completed: either a monetary contribution to a carbon off-setting program, a donation to an international volunteer scholarship fund, or a

personal gift-certificate for use on *Amazon.com*. Respondents took an average of 15

minutes to complete the alumni version of the IVIS. Data collection was completed by

September 2008.

In some cases, emails were outdated, filtered through a bulk email program, or

otherwise bounced back and never reached the intended participant. In total, the IVIS was

administered to 680 randomly-selected individuals from the two alumni groups. Email

addresses for 98 volunteers were outdated or otherwise invalid. A handful of emails were

also duplicated and were removed for sample independence. Consequently, 582 people

received the survey and 291 responded, resulting in an overall response rate of 50

percent. The WorldTeach alumni group was more responsive than the CCS alumni group.

Table 2 displays a breakdown of final response rates.

Table 2: Survey response rates

Program	Sample N	Response N	Response Rate
Cross Cultural Solutions	280	97	35%
WorldTeach	302	194	64%
Total	582	291	50%

Power Analysis

An effect-size of 0.25 on a 7-point scale was determined to be a practically

significant change in cultural competence rating based on an estimated standard deviation

of 0.75. The standard error of the model was estimated at 1.0. Using an online statistical

calculator (Lenth, 2006), a power analysis revealed that a sample size of 291 would be

adequate to determine statistically significant effects with more than 80 percent confidence. This determination was calculated assuming a linear regression with 10 predictors, and a two-tailed 95 percent confidence interval ($\alpha = 0.05$).

After running a hierarchical multiple regression with missing cases excluded listwise, it was determined that the original power estimation was overly optimistic in some areas and underestimated in others. The estimation of 250 valid cases was reduced by 67 when cases were excluded listwise (N = 183). The previously proposed power analysis assumed orthogonal design; that all of the predictors were mutually uncorrelated. However, due to a mild amount of collinearity between variables, the actual variance inflation factors (VIF) of predictors ranged from 1.1 to 3.2 for the main effect variables, and 1.2 to 1.4 for the moderator variables, which increased the sample size needed for adequate power. In contrast, the actual standard deviation of the model error terms (0.56 for the two-step and three-step models) was lower than the estimated value of 1.0, which increased power.

A power analysis using actual observed values revealed that a minimum sample size of 240 was needed to determine statistical significance ($\alpha = 0.05$) with 80 percent confidence for variables with high variance inflation factors (Stevens, 1995). Although a regression with data excluded listwise does not meet this criteria (N = 183), a regression with missing values imputed does meet this criterion (N = 291). Given the power estimates needed to determine statistical significance, and the high amount of missing values when cases were excluded listwise (37 percent), it was determined that values for missing data should be imputed. Greater details on methods of data imputation are provided later in this chapter.

Concept Measurement

The following section describes how the concepts and variables used in this study are operationalized and measured. Specifically, it addresses the concepts of intercultural competence, service duration, guided reflection, contact reciprocity, cultural immersion, and additional control variables. A descriptive summary of each variable is provided in

Table 8 and 9.

Outcome Variable

Intercultural competence: Intercultural competence is referred to by many different names such as multicultural or cross-cultural competence (Davis & Finney, 2006; Hammer, Bennet, & Wiseman, 2003; Kelley & Meyers, 1995; Savicki, 2008b), cross-cultural adaptability (Kelley & Meyers, 1995), cultural learning (Paige, Cohen, & Shively, 2004), global competence (A. Bird & Osland, 2004), cross-cultural knowledge and understanding (Bennett, 2008), intercultural competence (Deardorff, 2004; Fantini, 2007; Savicki, 2008b; Zhao, 2002), intercultural sensitivity (M. J. Bennet, 1993), and intercultural understanding (Humphrey, 2007). Although the names for each of these constructs imply possible differences in conceptualization and measurement, they are relatively similar in practical application. A recent study cited sixteen major instruments that measure variations on the concept of intercultural competence (Humphrey, 2007).

Among these multiple conceptions, this study uses the concept of intercultural competence based on its definition and wide use in service-learning research. Although multiple instruments have been developed to measure intercultural competence, it was not feasible to use these instruments alone for this study because the hypothesized independent variables were not measured with these instruments.

Because the IVIS instrument is not yet standardized, indicators were chosen that are consistent with Deardoff's Delphi study of 23 intercultural scholars (2008), who were asked to define this concept. Elements with 95-100 percent agreement among these scholars include: understanding other's worldviews, cultural self-awareness, adaptability to a new cultural environment, listening and observational skills, general openness to intercultural learning, and the ability to adapt to varying intercultural communication and learning styles (p. 34). These qualities do not all specifically reflect "intercultural" elements. However, they are all seen as important for intercultural competence skills (Deardorff, 2008).

Many of the variables used in the regression model, including intercultural competence, are composite variables constructed by summing items representing an underlying component. A Principal Components Analysis (PCA) was used to determine appropriate indicators for each concept. PCA is a data reduction procedure that computes the linear combination of manifest variables, and selects loadings such that each common factor accounts for the maximum possible amount of variance in the manifest variables (Jolliffe, 2002). In this way, identified components are computed exactly and not estimated as in factor analysis procedures.

Eigenvalues exceeding the Kaiser criterion (greater than 1.0) were used as an approximate lower bound for selecting the appropriate number of items for the ICC construct (Kaiser, 1960). Additional information such as scree plots were also used to identify the amount of variance contributed by each potential item. After the underlying construct was identified, the internal consistency of the ICC construct was tested using Cronbach's alpha statistics. Reliability analyses were also computed to identify problem

items that should be excluded from the construct. An internal reliability coefficient of 0.60 or higher was set as the minimal threshold for the composite variable. Although the typical reliability threshold is 0.70, a value of 0.60 is often used as a cutoff for scales with few items (Nunnally, 1967).

When items constituting the ICC construct were verified, a composite variable was created by calculating the average of each item under the construct. These composite scores were unit-weighted (data from each item were equally weighted). In order to maximize reliability, composite scores only allowed for one missing item. If more than one item in the construct was missing for a case, the entire composite variable for that case was counted as missing. By averaging scores, composite scores were additive; each item being linearly related to the total component score. Additive scores were chosen over factor scores because the additive composite scores were more normally distributed than a composite based on regression. Likewise, there was little concern about some items adding more substantially to the final score.

Twenty-five related indicators were initially chosen from the IVIS that had face validity with the concept of intercultural competence. Using iterative data reduction procedures, 15 of these 25 items were removed. Reduction procedures eventually merged on a single component including the ten indicators presented in Table 3. A Cronbach's alpha score of 0.87 revealed a high degree of internal validity on the principal component of intercultural competence.

Table 3: Intercultural competence component matrix (N = 256)

	Component

I am very comfortable talking about diversity with people of different cultures.	.630
I have a very strong appreciation of other nations, cultures, and customs.	.610
Whatever the situation I almost always look at it from many points of view.	.717
I try to look at everybody's side of a disagreement before I make a decision.	.625
I can easily resolve misunderstandings with people from other cultures.	.651
I understand the feelings of people from other cultures well.	.699
I work very effectively with people who are different from me.	.702
I easily adapt my plans or ways of doing things in response to changing circumstances.	.720
I am very flexible in my thinking and ideas.	.698
I am very willing to try new things.	.650

[a]Cronbach's $\alpha = 0.87$

Independent Variables

The following four independent variables test how variations in service characteristics influence the perceived intercultural competence of volunteers. These variables include service duration, cultural immersion, guided reflection, and reciprocity. Where appropriate, composite variables representing each of these constructs were created using Principle Component Analyses procedures identical with those outlined above under the intercultural competence construct.

(1) Duration of Service

Duration is measured as a continuous item in units of *weeks*, and is represented by the following question: *How many total weeks did you participate in international volunteer activity(ies) with the sending organization?* Units of total weeks is used instead of total hours because past research indicates that the duration of the placement may have a more significant impact on outcomes than the number of hours volunteers engage in a service task (Exum, 1980).

(2) Cultural Immersion

The concept of immersion is measured with binary (yes/no) responses. This concept measures cultural immersion in the living/housing context. It is measured with the following prompt: *I lived with a host family in the community.* The variable is dummy coded with "living with a host family" coded as one and "not living with a host family" coded as zero. This variable does not include other measures of cultural immersion such as the work context, personal relationships with host community members, involvement in local groups, clubs, or organizations, etc.

 (3) Guided Reflection

The concept of reflection is defined broadly and includes informal conversations and dialogue with others such as local people, other volunteers, or discussion with family and friends at home. Mezirow considers dialogue about new experiences critical to the process of reflection "in support of competing interpretations, by critically examining evidence, arguments, and alternative points of view" (Mezirow, 1997: 6).

PCA procedures revealed that the five indicators listed in Table 4 represent a single component. Reliability analyses calculated a Cronbach's alpha score of 0.62, indicating that inter-item correlation may scarcely be high enough to reliably suggest

these items measure a single unidimensional construct. Because all items fit within a single principle component, the *pattern* of inter-item covariance is relatively high, although the *size* of this covariance could be improved. This may be partly related to single-source bias, or may be due to actual differences in the indicators for this concept. For instance, the composite may measure individual characteristics (such as the propensity to reflect, wirte, and dialogue), or it may measure institutional effects (programming for opportunities to encourage guided reflection). Despite the lower reliability score, all five items are combined to produce a composite variable in order to measure the conception of guided reflection. It should be noted that lower reliability may increase error terms and reduce the effect size of this item on ICC (Jaccard & Turrisi, 2003).

Table 4: Guided reflection component matrix (N = 235)

	Component
I reflected often on the new experiences I encountered while volunteering.	.707
I spoke with other volunteers often about my experiences.	.667
I met with staff often to discuss my experiences.	.662
I wrote in a journal emailed or blogged often about my experiences.	.600
I spoke with community members often about my experiences.	.580

[a]Cronbach's α = 0.62

(4) Contact Reciprocity

The concept of contact reciprocity is represented by the four items listed in Table 5. Although Allport never refers to these indicators, as an interrelated bundle, as contact

reciprocity, they are consistent with the conditions of his intergroup contact theory (1954). It is assumed that, because all volunteers are placed with a coordinating agency, the contact is sanctioned by an authority. Consequently, the survey did not ask about the condition of authority sanction, and this condition is excluded from this composite variable.

The concept of reciprocity commonly refers to the mutual "exchange of gratifications", or the norm or duty to repay a gift or service (Gouldner, 1960). Although the term reciprocity is often construed more widely than shared goals and priorities, these indicators are also consistent with the definition of reciprocity used in service-learning research, which emphasizes shared goals, demand based services, and matching voluntary activities with local priorities (Pusch & Merrill, 2008).

PCA and reliability analyses revealed that four items reliably represent a single latent construct of reciprocity (Cronbach's alpha = 0.72). Consequently, respondent scores from the indicators in Table 5 were combined into a single composite variable representing the concept of reciprocity.

Table 5: Reciprocity component matrix (N = 234)

	Component
The activities I performed matched local priorities.	.835
Local staff and I shared very similar goals.	.729
I strongly believe the community requested and wanted my services.	.758
Community members and I were of equal social status.	.672

[a]Cronbach's α = 0.72

Additional Control Variables

Additional variables were used in the analysis to control for possible spurious effects unrelated to the theories presented in this dissertation. As described earlier in Chapter Two, additional theory and evidence related to IVS point to other individual and institutional qualities that may significantly affect volunteers' degree of intercultural competence. These variables include: 1) previous international experience, 2) race, 3) sex, 4) age, 5) education, 6) past exposure to diversity, 7) institutional support, and 8) the volunteer organization. In order to preserve parsimony in the model, demographic variables that are often included in analyses, including income and marital status, were excluded from the model due to lack of good theory and previous evidence suggesting their association with ICC, as well as low association with ICC in bivariate analyses.

(1) Previous International Experience

This continuous-level variable is measured in units of total weeks spent across borders. The concept is measured by combining two scale-level questions including: How many total years or weeks have you spent overseas *before* the age of 18 (include all experiences—volunteering, working, etc.)?; and how many total years or weeks have you spent overseas *after* the age of 18 (include all experiences—volunteering, working, etc.)? In order to maintain variable independence, total weeks spent volunteering for the target programs were subtracted from the sum total. A response of one year was converted to 52 weeks.

(2) Race

Race data is categorical and limited to one of four options including 1) Black or

African American, 2) White or Caucasian, 3) Asian, or 4) Other. Due to the small frequency of individuals in the non-White groupings, all non-White races were aggregated into a single category. The resulting data were entered as a categorical binary variable and dummy coded, with White coded as one and Non-white coded as zero.

(3) Sex

Sex is a self-identified categorical variable listed as either male or female. Data were entered as a binary variable with female coded as zero and male coded as one.

(4) Age

Respondent age is a continuous-level variable, self-identified by the respondent. Age is calculated using date of birth subtracted from the date of survey completion (ranging from July 2, 2008 to September 5, 2008).

(5) Education

The IVIS gathers ordinal data on eight educational categories representing the highest level of education completed by a respondent. Responses range from eighth grade or less to Ph.D., M.D. or other advanced professional degree. All respondents were relatively highly educated, with the majority holding their bachelor's degree or higher. This measure was separated into binary categories and dummy coded with Bachelor's degree or lower coded as zero, and higher than a Bachelor's degree coded as one.

(6) Previous Exposure to Diversity

Previous exposure to diversity is included as a composite variable based on five separate answers to the following question: *How much were each of the following people*

a part of your everyday life in your earlier life experiences? The five response categories are based on a seven-point Likert scale and are listed in Table 6. PCA procedures reveal that all five questions may be grouped as a single component (Cronbach's alpha = 0.77).

Table 6: Previous diversity exposure component matrix (N = 204)

	Component
Individuals of a different ethnicity	.819
Individuals with different political orientations	.711
Individuals with different religious beliefs	.797
Individuals from a different socioeconomic background	.840
Individuals with disabilities	.444

[a]Cronbach's α = 0.77

(7) Institutional Support

Institutional support includes orientation and training as well as continued support by local staff and the sending-organization. Responses to this concept are summed into a composite variable based on answers to the four statements listed in Table 7. Each response is measured with a seven-point Likert scale. High internal reliability among these items is demonstrated with a Cronbach's alpha score of 0.80.

Table 7: Institutional support component matrix (N = 210)

	Component
I received thorough training on my volunteer duties.	.852

I received thorough training on the host culture.	.879
Sending-organization staff supported me well throughout my volunteer placement.	.822
Local staff supported me well throughout my volunteer placement.	.596

[a]Cronbach's $\alpha = 0.80$

(8) Volunteer Organization

Volunteer organization is the sending organization with whom the volunteer enlisted to serve. Because only two organizations were surveyed in this study, the variable is binary and is dummy coded with WorldTeach as zero, and CCS coded as one.

Data Analysis

The analytic technique employed to test the research hypotheses is a three-step hierarchical multiple regression (Jaccard & Turrisi, 2003). This procedure tests how service duration, immersion, reflection, and reciprocity affect the intercultural competence of international volunteers, and if guided reflection and reciprocity moderate the relationship between cultural contact intensity and ICC.

Hierarchical Multiple Regression

The procedure of hierarchical multiple regression (HMR) entails entering variables in sets or steps based on theoretical considerations. HMR is similar to stepwise regression but the researcher determines the order of variables instead of allowing computer software to determine this priority. As a point of clarification, HMR procedures are different from hierarchical linear modeling (HLM) or multi-level analysis with nested

data (Gelman & Hill, 2007). HMR does not include nested data and changes in model R^2 and F-tests are used to determine the practical and statistical significance of each set of variables added to the model. This study uses three sets of variables including: 1) control variables, 2) main effect variables, and 3) product interaction terms.

Hierarchical multiple regression tests the relationships between intercultural competence and four main-effect variables including service duration, cultural immersion, contact reciprocity, and guided reflection (Aim 1). By incorporating an additional step, it also tests the significance of two moderating variables (guided reflection and contact reciprocity) on the relationship between contact intensity and ICC (Aim 2). Hierarchical multiple regression is used to test whether these interactions account for significant variance beyond that accounted for by the main effects, after controlling for various sociodemographic variables (Cohen, Cohen, West, & Aiken, 2002). Control variables that were not associated with ICC in bivariate analyses were excluded from the model. These variables include income (individual and household), number of children, marital status, and years of professional experience. The eight additional control variables also used in the regression include: previous international experience, race, sex, age, education, past exposure to diversity, and institutional support. Figure 2 represents a measurement model showing the relationship between the variables used in this analysis.

Figure 2: Measuring the effect of independent variables on intercultural competence

Independent Variables: Service Characteristics   Dependent Variable Outcome

$$b_o + b_{1i}x_1 + b_{2i}x_2 + b_{3i}x_1x_2 + ...b_{ki}x_k + ...b_{*i}x_*x_* \quad = \qquad y_i$$

Main effect variables		Dependent variable
Duration of service	Aim 2 Aim 1	Intercultural competence
Cultural immersion		

Main effect or moderating variables

Reflection

Contact reciprocity

Control variables

Previous international experience

Past exposure to diversity

Institutional support

Age, Race, Education, Sex

Volunteer organization

With all variables included, the full regression contains one dependent variable, twelve independent variables, and four product terms. To measure moderating effects, blocks of variables are entered in three distinct steps. After each addition, an incremental F-test is used to determine the significant differences in R^2 between blocks of variables (Cohen et al., 2002). Step one includes control variables and sociodemographic characteristics; step two includes the main effect variables; and step three includes the four interaction product terms between reflection and reciprocity and contact intensity (duration and immersion)—see Table 8.

Table 8: Summary of variable measurement and hierarchical regression process

Variable Name	Transformations and Level of Measurement
Outcome Variable	
Intercultural Competence	Composite scale variable
Step 1: Control Variables	
Previous international experience (SqRt)	Scale, transformed with square root due to outliers on high end and overall positive skew
Past exposure to diversity	Composite scale variable
Institutional support	Composite scale variable
Age (ln)	Scale, transformed with natural log due to old age outliers and positive skew
Race	Binary dummy code, White or Non-White
Education	Binary dummy code: Bachelor's degree or less and Higher than Bachelor's degree
Sex	Binary dummy code, Male or Female
Volunteer organization	Binary dummy code, CCS or WorldTeach
Step 2: Main Effect Variables	
Guided reflection	Composite scale variable
Contact reciprocity	Composite scale variable
Duration	Scale
Immersion: Housing Context	Scale
Step 3: Moderation Effect Variables	
Duration x Contact reciprocity	Scale product term
Duration x Guided Reflection	Scale product term
Immersion x Contact reciprocity	Scale product term
Immersion x Guided Reflection	Scale product term

Univariate and Bivariate Assumptions

Prior to entering variables in the regression model, univariate analyses were completed to verify that assumptions of regression were met. In order to improve the accuracy of estimates, highly skewed or kurtotic variables were transformed. Only two variables required transformation including: 1) the square root of *previous international experience* due to high positive outliers and overall positive skew, and 2) the natural log of *age* due to a four cases of old age outliers and an overall positive skew. Table 8 summarizes the transformations and levels of measurement for all variables in the model. Visual inspections of histograms and boxplots verified sufficient univariate normality for all variables based on the conventional rules of thumb described below.

Bivariate analyses between the outcome variable and all independent variables, along with an examination of residual scatterplots, verified the presence of linearity and homoscedasticity. Critical p-values higher than 0.01 for the Levene's test indicated sufficient homogeneity of variance. Bivariate scatterplots of the residuals revealed that residuals were randomly scattered. The absence of standardized scores exceeding ± 3 indicated a lack of problematic outliers. Bivariate analyses between all independent variables also verified relative lack of collinearity between variables.

Due to multicollinearity between product terms and their constituent parts, scale-level component terms were centered prior to multiplication (Aiken & West, 1991). Centering the component variable did not change model significance, but did alter the constant to make the coefficient more substantially interpretable (Jaccard & Turrisi, 2003). In addition to enhancing the ease of interpretation, centering also reduced the

correlations between the product terms and their constituent variables (Jaccard, Wan, & Turrisi, 1990).

In summary, the variables used in this study sufficiently met the assumptions for multiple regression including linearity, homoscedasticity, and normality. In cases where a violation of these assumptions was detected, variables were transformed or otherwise corrected (see Table 9 for a descriptive summary of all variables using in the analysis). The regression analysis was estimated with both original and transformed variables to assess the consequences of transformations. In order to assess the effects of multicollinearity on regression results, analyses were also estimated before and after excluding collinear variables.

Missing Data Procedures

Item non-response for each variable varied from 0 to 30 percent. It is unknown whether respondents failed to answer questions due to fatigue, lack of knowledge, sensitivity of the items, or other factors. However, participants consistently responded to items toward the end of the survey less frequently than to items at the beginning of the survey, indicating that item non-response may be due to fatigue. Respondents also frequently failed to respond to personal characteristics such as income, race, and education, which were asked towards the end of the survey.

Case deletion strategies are typically only appropriate when data are missing *completely* at random, and represent only a small proportion (about 5 percent) of the complete dataset (Little & Rubin, 1987). Visual inspections of bivariate descriptive statistics and boxplots between the dependent and independent variables indicated that data were likely only missing at random with respect to the dependent variable. Due to a

high proportion of missing values when cases are excluded listwise in multiple regression (37 percent), it was determined that values for missing data should be imputed to reduce plausible non-response bias (Pickles, 2005).

Although many imputation methods are now available, multiple imputation is arguably more reliable than single imputation at generating estimates that reflect true uncertainty and variability in the data (Pickles, 2005; Rubin, 1987; Schafer, 1999). Multiple imputation simulates multiple values for each missing case, generates a random sample of missing values, creates multiple datasets, then iteratively analyzes each dataset of imputed values. The final estimates are a combination of results from these multiple datasets.

Multiple imputation procedures were completed using SAS 9.2, with the Markov chain Monte Carlo (MCMC) method (Schafer, 1997). MCMC is particularly useful for arbitrary missing data patterns, and employs parametric and nonparametric methods to simulate data from a Bayesian prediction distribution for normal data (Yuan, 2008). MCMC determines the conditional probability of values for missing data *after* taking into account all other available evidence and observations (i.e., posterior probability—see Schafer 1997).

The MCMC multiple imputation procedures used in this study included all of the main variables along with an additional eight variables that were potentially related to the missingness of the imputed variables (Yuan, 2008). These additional variables included hours per week volunteering, host-country language capability, occupational experience, overall satisfaction with the volunteer placement, an international social network composite variable, household income, individual income, and the full range of

educational achievement options. The justification for including more variables for imputation was to produce more accurate imputation estimates and to strengthen the validity of the dataset analysis procedure (Rubin, 1996).

For purposes of replication, the following options were used for multiple imputation procedures in SAS 9.2: 200 burn-in iterations, 100 general iterations, a single chain for each of the five imputations, a full-data method, and a random seed value starting at 43043854. An examination of resulting estimates showed no strong trends and no significant autocorrelations for the mean of the newly imputed variables. Following the multiple imputation of five datasets, the expectation-maximization (EM) algorithm was used to compute maximum likelihood estimates of missing values, and to combine multiple datasets for final imputed estimates.

As a result of data imputation, each variable included an estimated value for each missing case, for a total regression n-size of 291. The range for all variables remained unchanged. However, variable means, standard deviations, and frequencies changed slightly. Table 9 displays the total number of missing values for each variable. In order to better understand the effects of imputation on the data, this table also compares each variable's mean or frequency and standard deviation before imputation and after imputation.

Table 9: Descriptive statistics of study variables (N = 291)

Metric Variables	N	Range	Mean	Imputed Mean	SD	Imputed SD
Intercultural Competence	256	3-7	5.83	5.83	.69	.65
Previous international experience	206	0-1092	130.58	130.50	161.10	130.48
Past exposure to diversity	204	1-7	4.77	4.76	1.22	1.03
Institutional support	234	1-7	5.18	5.16	1.36	1.24
Age	265	20-75	31.23	31.02	12.00	11.50
Guided reflection	235	3-7	5.69	5.68	.91	.82
Contact reciprocity	234	1-7	5.19	5.18	1.16	1.05
Duration (weeks)	266	1-110	31.7	30.42	24.59	24.36

Non-metric Variables	N		Frequency	Imputed Frequency	Percent	Imputed Percent
Race	205					
White		1	167	249	81.5	85.6
Non-White		0	38	42	18.5	14.4
Education	208					
Bachelor's or less		0	131	207	63.0	71.0
Higher than Bachelor's		1	77	84	37.0	29.0
Sex	289					
Male		1	66	66	22.8	22.7
Female		0	223	225	77.2	77.3
Volunteer organization	291					
CCS		1	97	97	33.3	33.3
WorldTeach		0	194	194	66.7	66.7
Immersion: Housing	265					
Lived with host family		1	108	117	40.8	40.2
Did not live with host family		0	157	174	59.2	59.8

As displayed in Table 9, only the race and education variables displayed

significant differences in frequencies between imputed and non-imputed values. Mean

differences indicate that there may be more missing values among White race and less-educated respondents. The marginal imputation of White-race responses was around 33 percent, but only 10 percent for Non-White responses. Likewise, the marginal imputation of "Bachelor's degree or less" responses was 37 percent, compared to only 8 percent for education higher than a Bachelor's degree (see Table 9). This finding could reflect a non-response bias among White and less-educated participants, or could be an artifact of a weakness in the MCMC method for imputing nonparametric data (Yuan, 2008). This discrepancy is common for imputed data—particularly when imputing categorical data that must be rounded for use in regression (Horton, Lipsitz, & Parzen, 2003). Results of the hierarchical multiple regression using imputed values are provided in the following chapter.

CHAPTER IV: RESULTS

This section presents findings of this study, including model fit statistics and a summary of the full and parsimonious hierarchical multiple regression results. Following a presentation of these findings, this section ends with a summary and conclusion for each of the four research hypotheses.

Model Fit

The initial block step in the hierarchical regression model includes only control variables and displays good overall model fit ($F = 5.61$, $df_1 = 8$, $df_2 = 282$, $p < 0.001$). This model explains 14 percent of the variance in intercultural competence (adjusted $R^2 = .11$), the majority of which is explained by institutional support ($\beta = .27$), previous international experience ($\beta = .14$), and gender ($\beta = .12$). All of these variables are significant at $\alpha < 0.05$.

The second block, which adds the four main effect variables, doubles the variance explained ($R^2 = .28$). Model 2 also shows good overall model fit ($F = 9.18$, $df_1 = 12$, $df_2 = 278$, $p < 0.001$). A lower marginal difference in adjusted R-square from block one to block two (adjusted $R^2 = .25$) indicates that the model is better fitted with the main effect variables included. The standard error of the estimate also decreases from .61 in block one to .56 in block two, indicating that the prediction error and confidence intervals are lower when including the main effect variables in the model.

In the second block model, nine variables are significant predictors of intercultural competence at $\alpha = 0.05$, including five control variables (volunteer program, race, previous international experience, age, and sex) and all four main effect variables.

For the main effects, the greatest amount of variance in ICC is explained by contact

reciprocity (β = .29) and guided reflection (β = .19). For the control variables, a fair

amount of variance is explained by volunteer program and previous international

experience (β = .26, and .14 respectively)—see Table 10.

Table 10: Summary of hierarchical multiple regression (N = 291)

	Model 1 (R^2 = .14)				Model 2 (R^2 = .28)				Model 3 (R^2 = .30)				Model Summary	
	b	SE (b)	β	p	b	SE (b)	β	p	b	SE (b)	β	p	ΔR^2	ΔF
Step 1 – Control Variables													.137	5.61***
(Constant)	5.02	.27		.000	3.68	.33		.000	3.54	.34		.000		
Past exposure to diversity	.04	.04	.06	.305	.01	.03	.02	.779	.02	.03	.04	.482		
Institutional support	.14***	.03	.27	.000	.04	.03	.08	.178	.03	.03	.06	.345		
Volunteer program (CCS) [a]	.11	.09	.08	.223	.36**	.12	.26	.004	.38**	.12	.28	.002		
Previous int'l experience	.02*	.01	.14	.021	.02*	.01	.14	.019	.02*	.01	.12	.034		
Race (White)	-.19	.11	-.10	.086	-.20*	.10	-.11	.046	-.16	.10	-.08	.124		
Age	.00	.00	-.08	.220	-.01*	.00	-.12	.050	.00	.00	-.08	.181		
Sex (male)	-.19*	.09	-.12	.035	-.17*	.08	-.11	.045	-.17*	.08	-.11	.045		
Education (> Bachelor's)	.09	.09	.06	.282	.12	.08	.08	.138	.10	.08	.07	.234		
Step 2 – Main Effects													.147	14.25***
Immersion (host family)					.17*	.09	.13	.047	.21*	.09	.16	.017		
Guided reflection					.15***	.04	.19	.001	.14**	.04	.18	.001		
Contact reciprocity					.18***	.04	.29	.000	.19***	.04	.31	.000		
Duration (ten weeks)					.04*	.00	.17	.033	.04*	.00	.18	.023		
Step 3 – Interaction Terms [b]													.020	1.98
Duration*Reciprocity									.00	.00	-.06	.301		
Duration*Reflection									.00	.00	-.09	.116		
Immersion*Reflection									-.11	.09	-.07	.208		
Immersion*Reciprocity									.06	.07	.05	.378		

*** p < 0.001; ** p < 0.01; * p < 0.05 (two-tailed). [a] Reference group is listed in parentheses. [b] All interaction terms are centered

The full hierarchical model with the addition of four product terms contributes little to the overall variance explained ($\Delta R^2 = .02$). Although the model ANOVA F-ratio shows good model fit for the full model ($F = 7.49$, $df_1 = 16$, $df_2 = 274$, $p < 0.001$), the change in F from the second step to the third step is not statistically significant ($\Delta F = 1.98$, $df_1 = 4$, $df_2 = 274$, $p > 0.05$). Lack of significance indicates that the model including all product terms does not significantly reduce error or significantly increase the model's predictive capacity. Although the model explains 30 percent of the variance in intercultural competence, the difference in adjusted R-square of four percent (adjusted $R^2 = .26$) indicates that the model is likely overfitted and may be improved by removing insignificant variables.

Despite the low variance explained by the addition of the third step, researchers have asserted the importance of testing for moderation when there is an unexpectedly weak relation between a predictor and outcome variables (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004). In this case, the relationship between intercultural competence and duration and immersion are significantly weaker than expected, and should be further assessed through stepwise deletion of insignificant product terms.

In order to increase parsimony and overall model fit, insignificant product terms were removed one by one, and model statistics were assessed following the removal of each product term. Using stepwise deletion, the model including only one interaction term (duration*reflection) was the best fitting and most parsimonious solution. The model F ratio indicates improved model fit ($F = 8.86$, $df_1 = 13$, $df_2 = 227$, $p < 0.001$), and the change in F from the second step to the third step was statistically significant ($\Delta F = 3.85$, $df_1 = 1$, $df_2 = 277$, $p = 0.05$). With the addition of a significant product term, the

standard error of the estimate also decreased slightly from .561 to .559. A Durbin Watson statistic of 2.02 indicated no apparent autocorrelation of model residuals.

Using this parsimonious model, the overall relationship between intercultural competence and the independent variables was moderate R = .542. Model 4 explained about 29 percent of variance in ICC (R^2 = .294). An adjusted R^2 of .261 indicates that this reduced model was marginally improved over the full model, but may have been overfitted. Overfitting of the data was likely due to the inclusion of non-significant control variables. Although these control variables were not significantly related to ICC, it was necessary to retain these variables in the model to account for unknown individual and institutional effects.

Despite its statistical significance, the addition of a significant product term in the third block contributed little to the overall variance explained (ΔR^2 = .01). However, this small effect is consistent with prior research studies assessing moderator effects, which generally anticipates a small change in explanatory power and relatively small effect sizes (Aguinis, 1995; Frazier et al., 2004; C. Lee & Farh, 1999). Table 11 displays the results of the final, most parsimonious, moderating model that was used to test the research hypotheses.

Table 11: Parsimonious hierarchical multiple regression of intercultural competence on predictor variables (N = 291)

	Model 4 (R^2 = .29)						Model Summary		
	b	$SE(b)$	β	t	p	VIF	ΔR^2	ΔF	$SE(\sigma_{\bar{x}})$
Step 1 – Control Variables							.137	5.61***	.612
(Constant)	3.687	.329		11.20	.000				
Past exposure to diversity	.018	.034	.029	.53	.596	1.173			
Institutional support	.039	.031	.075	1.28	.201	1.341			
Volunteer program (CCS) [a]	.344**	.123	.250	2.79	.006	3.149			
Previous int'l experience	.015*	.007	.121	2.08	.038	1.316			
Race (White)	-.192	.101	-.100	-1.90	.058	1.078			
Age	-.006	.003	-.098	-1.64	.103	1.420			
Sex (male)	-.176*	.083	-.114	-2.12	.035	1.128			
Education (> Bachelor's)	.113	.080	.079	1.41	.160	1.226			
Step 2 – Main Effects							.146	14.22***	.561
Immersion (host family)	.175*	.085	.132	2.05	.041	1.619			
Guided reflection	.140**	.043	.176	3.27	.001	1.143			
Contact reciprocity	.182***	.036	.294	5.04	.000	1.332			
Duration (weeks, centered)	.004*	.002	.165	2.11	.035	2.385			
Step 3 – Interaction Terms							.010	3.85*	.559
Duration*Reflection [b]	-.003*	.002	-.102	-1.96	.050	1.069			

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$ (two-tailed); Model $F = 8.86$, $df = 13, 277$, $p < .0001$; [a] Reference group is listed in parentheses. [b] Interaction terms is centered .

The volunteer program had a relatively high VIF value of 3.15, which was noteworthy, but below a threshold of concern (Belsley, Kuh, & Welsch, 1980). Tolerance values were also all well above critical values of 0.10. The lowest tolerance value was with the volunteer program variable, which had a value of 0.32. This suggests that only 32 percent of the predictive capability of volunteer program was not explained by other variables in the regression equation. Nonetheless, volunteer program was retained in the model to account for unknown differences between program models. Overall, low tolerance values indicated that while some collinearity was present, the variance, standard

error, and parameter estimates were not likely to be significantly inflated (Hair, Black, Babin, Anderson, & Tatham, 2006).

An examination of the correlation matrix revealed that only four bivariate correlations exceeded a value of 0.40 (see Table 12). Although these values were moderately high, it was unlikely that they significantly distorted the regression variate or inflate estimates and errors (Hair et al., 2006). The highest bivariate correlation was between volunteer program and service duration ($r = 0.71$). While this value was below .90, it may have inflated model errors slightly. Despite the collinearity and low predictive capability of the volunteer program variable, this variable was retained in the model to account for unknown differences between the two volunteer programs. In order to test the effect of the volunteer program on the significance of correlated variables, it was removed during the testing process. Even with the volunteer program variable deleted, parameter values for duration, immersion, reflection, and reciprocity changed little, and all remained significant in the model.

In addition to significant independent variables, which are discussed in greater detail in the next section, three covariates were also significant in the parsimonious model. Controlling for other variables, respondents volunteering with Cross Cultural Solutions were associated with a 0.34 point increase in perceived intercultural competence ($b = .344$, $t = 2.79$, $p < .01$). Previous international experience was also significantly associated with higher intercultural competence. Each additional week volunteers spent abroad prior to volunteering was associated with a $(0.02)^2$ (or 0.0004) point increase in intercultural competence. If interpreted in years, each additional year spent abroad prior to volunteering was associated with a 0.01 point increase in

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intercultural competence ($b = .015$, $t = 2.08$, $p < .05$). Gender was also significant in the

model and being female was associated with a .18 point increase in perceived

intercultural competence ($b = -.176$, $t = -2.12$, $p < .05$).

Table 12: Zero-order Pearson Correlation Coefficients between all variables (N = 291)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Intercultural competence	---												
2. Past exposure to diversity	.14*	---											
3. Institutional support	.28**	.07	---										
4.Volunteer program	-.01	.04	-.19**	---									
5.Previous int'l experience	.12*	.21**	.04	-.27**	---								
6.Race	-.14*	-.11	-.07	-.05	.00	---							
7. Age	-.06	.11	-.08	.35**	.08	.09	---						
8. Sex	-.12*	-.09	.01	-.16**	.17**	-.03	.10	---					
9. Education	.08	.18**	-.02	.02	.12*	-.09	.29**	-.02	---				
10.Immersion	.16**	.00	.25**	**-.54***	.15*	.07	-.18**	-.03	.13*	---			
11.Guided reflection	.26**	.02	.20**	-.09	-.09	.01	-.04	-.06	-.11	.07	---		
12.Contact Reciprocity	**.40***	.17**	**.43***	.00	.02	-.07	.04	-.01	-.03	.15*	.21**	---	
13.Duration	.11	.00	.17**	**-.71***	.36**	.08	-.14*	.20**	.05	.28**	.15**	.04	---
14.Duration ^{x} Reflection^a	-.14*	.10	-.05	.00	-.08	.07	.14*	-.05	.02	.02	-.07	.00	-.03

$**p < 0.01$; $*p < 0.05$ (two-tailed); [a] centered product variable

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Hypothesis Testing

The first aim of this study was to understand how service duration, cultural immersion, guided reflection, and contact reciprocity affect the intercultural competence of international volunteers. The second aim of this study was to test whether guided reflection and contact reciprocity affect the relationship between cultural contact (immersion and duration) and intercultural competency. To assess these aims, the study hypotheses were initially tested using a full hierarchical regression without moderating variables (Model 2), and later using a more parsimonious model with stepwise deletion of insignificant product terms (Model 4). Parameter coefficients and the results of significance testing are explained below and summarized in Table 11.

Hypothesis 1: Duration

Controlling for other variables in the model, duration is significantly related to intercultural competence as a main effect in the parsimonious moderating model ($b =$ .004, $t = 2.11$, $p < .05$). As such, the null hypothesis of no difference is rejected: volunteers serving for a longer duration report higher levels of ICC. Because the parameter coefficient for duration is the same for both the main effects model (Model 2) and the moderating model (Model 4), it could technically be interpreted in two different ways. For the main effects model, holding all the other independent variables constant, each additional week of service is associated with a 0.004 point increase in intercultural competence. If this effect is scaled up and interpreted in years, each additional year of international volunteering is associated with a 0.21 point increase in intercultural competence.

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However, because guided reflection appears to partially moderate the relationship between duration and intercultural competence ($b = -.003$, $t = -1.96$, $p = .05$), the duration component coefficient in Model 4 is not interpreted as it would be in a main effects model. In a moderating model, the duration coefficient (.004) specifies a *conditional* relationship that predicts the regression of ICC on duration when reflection is at a value of zero (Jaccard & Turrisi, 2003). Because the reflection component variable was centered to reduce collinearity prior to including it in the product term, the coefficient of duration actually represents the estimated effect of duration on ICC when guided reflection is at its average (5.67).

Using a numerical example, among low-reflecting volunteers (those who scored a 3 on a 7-point scale) intercultural competence would be 0.60 points higher for those serving for one year than for those serving for only two weeks. On the other hand, among relatively high-reflecting volunteers (those who scored a 6 on a 7-point scale) intercultural competence would only be 0.15 points higher for those serving for one year than for those serving for two weeks. Table 13 provides additional examples of how the effect of duration on ICC is interpreted at different levels of guided reflection. Figure 3 provides a visual representation of how the slope of ICC on duration changes at different levels of guided reflection.

Table 13: The changing slope of ICC on duration at different values of guided reflection

Guided reflection	Value of component	Slope of ICC on duration at component value	Predicted values of ICC	
			Duration in weeks*	
			2 wks.	52.2 wks.
Minimum reflection (3)	-2.67	.0120	3.337	3.940
Low reflection	-1.00	.0070	3.561	3.912
Average reflection (5.67)	**0.00**	**.0040**	**3.695**	**3.896**
High reflection	0.75	.0010	3.796	3.883
Maximum Reflection (7)	1.33	-.0005	3.873	3.874

*Figures represent the predicted values of intercultural competence when all covariate values are

set to zero.

Figure 3: Moderating effects of guided reflection on duration
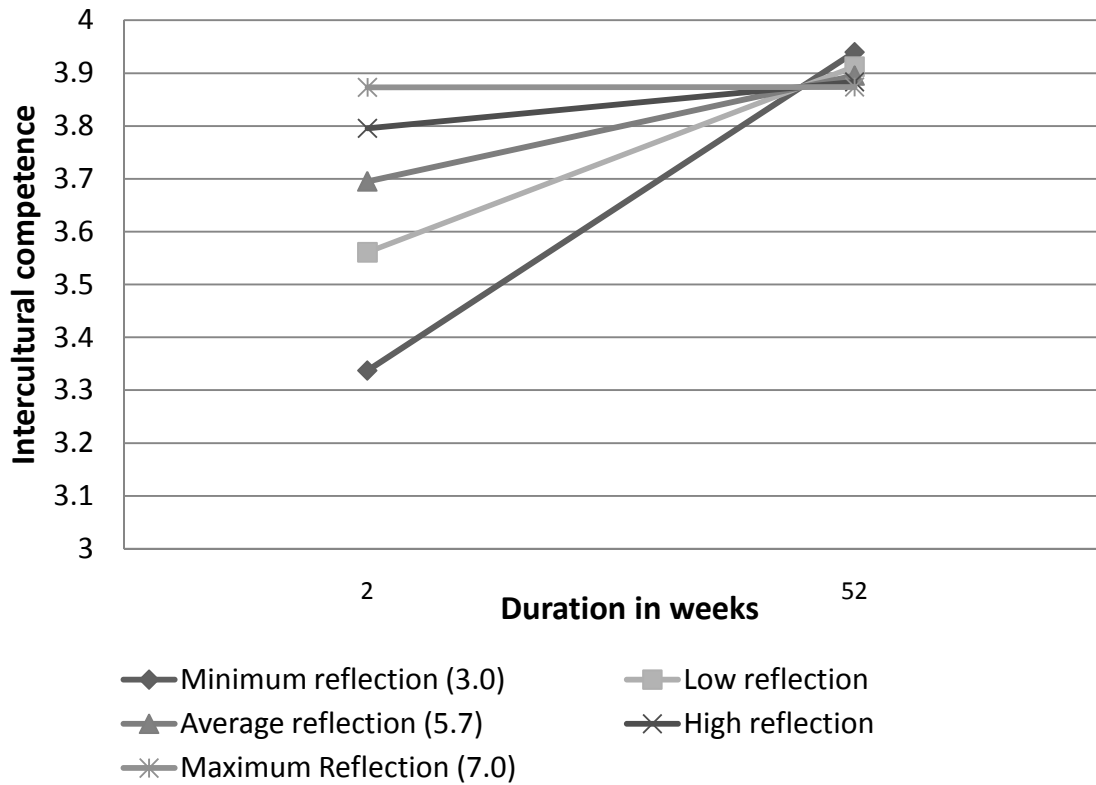
Hypothesis 2: Immersion

Controlling for other variables, living with a host family is significantly related to intercultural competence ($b = .175$, $t = 2.05$, $p < .05$). The null hypothesis of no difference is rejected: volunteers more immersed in the host-culture by living with a host family report a .175 point increase in intercultural competence compared to those that have other living arrangements. It is important to note that the variable operationalizing the concept of immersion only measures the housing context and does not represent alternative measures of cultural immersion such as the work context, personal relationships with host community members, or direct involvement in local groups, clubs, or organizations.

Hypothesis 3: Guided Reflection

The primary hypothesis (a) is that volunteers reporting higher guided reflection will report higher levels of ICC. Although guided reflection is significantly related to intercultural competence as a main effect in the moderating model ($b = .140$, $t = 3.27$, $p < .01$), it is not appropriate to interpret the conditional effects as first-order effects when moderation is significant (Frazier et al., 2004). Given this limitation, the first hypothesis is conditionally rejected.

The second hypothesis (b) is that guided reflection affects the relationship between cultural contact intensity (duration and immersion) and intercultural competence. Guided reflection does not appear to moderate the relationship between immersion and intercultural competence in the full moderating model ($b = -.11$, $t = -1.26$, $p > .05$), and the null hypothesis of no differences *as it relates to cultural immersion* is retained.

As discussed under findings for duration, however, guided reflection does appear to moderate the relationship between service duration and intercultural competence ($b = -.003$, $t = -1.96$, $p < .05$). Therefore, the null hypothesis of no difference *as it relates to service duration* is rejected. This finding indicates that longer service duration is a less important predictor of ICC for volunteers who report reflecting on their experience. Likewise, increased duration is a stronger predictor of ICC for volunteers who fail to reflect on their experience. For every point increase in guided reflection, the slope of ICC on duration decreases by .003. The guided reflection coefficient (.140) represents the estimated effect of reflection on ICC when service duration is at its sample mean of 32 weeks (centered at zero). It should be noted that this effect, which decreases with longer

durations of service, is likely underestimated due to the comparatively lower reliability of the guided reflection composite variable (Jaccard & Turrisi, 2003).

Hypothesis 4: Contact Reciprocity

The first hypothesis (a) is that volunteers reporting greater contact reciprocity will report higher levels of ICC. Contact reciprocity does have a significant main effect on ICC ($b = .182$, $t = 5.04$, $p < .001$). Because all interaction terms that used reciprocity as a component term were removed from the parsimonious moderating model, the reciprocity parameter estimates are interpreted as first-order effects (Aiken & West, 1991; Frazier et al., 2004). Holding all other variables constant in the model, an increase in one point of contact reciprocity (considering a theoretical range of six points) is associated with a .182 point increase in intercultural competence. The standardized parameter estimate ($\beta = .29$) reveals that contact reciprocity explains more variance than any other single variable in the model, even after partialling out the effects of other model covariates ($sr^2 = .11$).

The second hypothesis (b) is that contact reciprocity strengthens the relationship between cultural contact intensity and intercultural competence. The product term between contact reciprocity and duration was not significant in the full moderating model ($b = -.002$, $t = -1.04$, $p > .05$). Likewise, the product term between contact reciprocity and immersion was not significant in the full moderating model ($b = .065$, $t = .88$, $p > .05$). Because both interaction terms were not significant, the null hypothesis is retained: contact reciprocity does not appear to function as a moderator between cultural contact intensity and intercultural competence.

CHAPTER V: DISCUSSION & IMPLICATIONS

This final chapter presents a comprehensive summary of the study, which reviews research aims, study methods, and research results. It outlines the strengths and limitations of the research findings presented in chapter four, and discusses these findings in greater detail. The chapter ends with a modest accounting of how this study contributes to research in this field, and discusses the major implications of the study results for policy, practice and future research in international volunteering and service.

Summary

Intercultural competence—the ability to communicate effectively and appropriately in intercultural situations—is an increasingly valuable skill in a globalized world. Scholarship on cultural contact once asserted that simply being exposed to a different culture would increase intercultural awareness, understanding, and competence (Zajonc, 1968). However, more recent research suggests that exposure will increase intercultural competence (ICC) only when conditions are right (Pusch & Merrill, 2008). This study isolated four conditions that vary across institutional models and tested how these variations affect ICC outcomes. These attributes included service duration, cultural immersion, guided reflection, and contact reciprocity. Tenets of social identity theory, stage theories of cultural adaptation and growth, intergroup contact theory, transformative learning theory, and a growing body of empirical research support the hypotheses of this study.

A parsimonious hierarchical regression model indicated that service duration, cultural immersion, guided reflection, and contact reciprocity had a significant main

effect on ICC, as hypothesized. Although contact reciprocity did not have a moderating

effect on the relationship between duration or immersion and ICC, guided reflection did

have a moderating effect on the relationship between duration and ICC. The impact of

time spent across borders appeared to fade with the amount of guided reflection.

Contact reciprocity was the strongest predictor and explained more variance than

any other single variable in the model. This finding indicates that volunteers' perceptions

of ICC increased when their activities matched local priorities and were requested by the

host community. ICC is also greater when host organization staff and volunteers share

similar goals and have a perception of equality with community members.

Limitations

This study has a number of theoretical and methodological limitations. Previous

research on international volunteering provides a rather weak theoretical foundation upon

which to build current work. Consequently, theory and empirical support for this research

draws largely from the fields of study abroad and service-learning. While these fields are

comparable given their focus on international learning and experiential education, effects

may differ due to differences in the "voluntary" nature of placements (Davis Smith,

2004), which may affect motivations and outcomes (Bandow, 1990; Eyler et al., 1997).

Generalizability of findings from this research were affected by mild collinearity

between variables, missing values, lack of well-normed and standardized instruments,

volunteer selection bias, and other possible response and non-response biases. These

limitations were addressed through PCA and reliability analyses, variable

transformations, individual and institutional control variables, and multiple imputation of missing data.

The research design used in this study also has significant limitations. As a cross-sectional study, this research uses retrospective data based on self-report. This type of data is known to have a number of methodological weaknesses, and often yields results that are inconsistent with other longitudinal studies (Menard & Elliott, 1990). Fortunately, longitudinal data with non-intervention comparison groups is currently underway, using the same volunteer organizations. Data from this follow-up survey will be available next year, and can be used to validate or refute the findings of this study. Although longitudinal data is currently unavailable, nonexperimental studies are frequently used in the social sciences to justify more expensive and time-intensive experimental research. This dissertation falls within the category of nonexperimental, exploratory research studies.

Because all data were collected through a self-report questionnaire, single-source bias could also be a limitation of these findings (Spector, 1987). According to Harman's single factor test, however, all variables did not load on a single factor representing a single source during Principle Component Analyses (Podsakoff & Organ, 1986). This suggests that single-source bias should not be a serious limitation of the findings in this study. To lessen any potential limitations of single-source bias in future studies, items of the IVIS may be administered in random order to decrease the possibility that respondents will provide uniform answers (Lord & Maher, 1991).

Although self-report methods may be a limitation, retrospective recall may actually provide some advantages. As a retrospective survey, alumni may have a fuzzy

recollection of the details of the service experience. However, they may also have a greater appreciation for the centrality of the volunteer experience on their current worldview. Because this research surveys alumni from two cohorts separated by four years, it may provide a longer-term perspective than is possible with one-year follow-up studies.

The use of hierarchical multiple regression with this data limits study conclusions. Linear regression only provides information about the relationships between variables, but not about the underlying cause of the outcome of interest. Therefore, it is not possible to conclude that international volunteering resulted in the observed changes in volunteers' ICC—only that these facts were correlated. It is not possible with cross sectional data to make conclusions about causality. Future longitudinal research based on quasi-experimental design may help infer causation.

The presence of mild collinearity in this model implies that standard errors of the estimates may be inflated, which may also reduce the statistical significance of estimated coefficients and increase the probability of Type II error. Collinearity among variables is a common concern with multiple regression because explanatory variations are assumed to be linearly independent, but are rarely independent in reality. Although these problems could be mitigated by removing correlated variables, excluding these variables would likely be more detrimental than beneficial given the spurious effects for which these variables likely control.

Related to this issue, understanding the outcomes of international volunteering on intercultural competence is complex and could easily contain spurious effects that unknowingly affect outcomes. Although care was taken to control for as many

differences as possible in multiple regression, it was not possible to control for all variations. Consequently, the constructs identified in this study only explain around 30 percent of differences in effects. To the degree that latent variables remain unnoticed, these variables may incorrectly explain deviations in volunteers' perceptions of ICC.

Using a non-standardized survey instrument to measure the construct of intercultural competence is a further limitation of this study. Principal component analyses and reliability statistics, as well as construct validity indicate that items measuring this concept are appropriate for this study (Deardorff, 2008). However, it is unclear how items under this construct may generalize to other populations, or whether they truly represent an agreed-upon concept of intercultural competence. The same limitation is relevant to other primary constructs used in this study such as immersion, guided reflection, and reciprocity. Despite these possible limitations, quantitative procedures were performed in the current and previous studies to minimize measurement error from issues related to data validity or reliability (Lough et al., 2009).

Respondents rated themselves highly on the majority of items, resulting in low variance on some items and scales. Low variance on scores of highly-rated items makes it difficult to detect differences given the relatively small effect sizes. This is particularly problematic for detecting moderator effects, as these effects are typically quite small (Aguinis, 1995; Jex & Elacqua, 1999). This limitation was partly alleviated by imputing missing data, thereby increasing the sample size and the power needed to reduce Type II error.

Although imputation reduces biases for data that are deemed not to be missing completely at random (Little & Rubin, 1987), multiple imputation also comes with its

own set of limitations and biases—particularly when data are assumed to be multivariate normal or when categorical data are rounded (Horton et al., 2003). To address this limitation, the study used multiple imputations combining five datasets to reduce the uncertainty of missing values, and to reduce possible biases among these values.

Volunteer selection bias may also limit the validity of study findings. It was not possible to randomly assign volunteers to different types of service programs. Likewise, outdated contact information from volunteers who served in 2002 may have introduced significant sampling bias. In addition, the overall survey response rate of 50 percent may have skewed results by introducing a non-response bias. As a comparative study, this non-response bias may be particularly problematic given differences in response rates between the two samples representing each institutional model. Not only might sample characteristics differ from the population from which they are drawn, but they may also be different from each other. This possible sampling bias was reduced by introducing institutional control variables into the linear model. However, given the study design and practical limitations, response and non-response biases must be acknowledged as a, perhaps irresolvable, limitation of these data.

Discussion of Findings

The findings from this study suggest that programs which differ on duration, immersion, reflection, and reciprocity can expect that returned volunteers will vary on their perceptions of intercultural competence. A few variables in this model have a relatively small effect on a volunteer's perception of ICC. However, the fact that variables in this study explain about 30 percent of variance in returned volunteers'

perceptions of intercultural competence suggests that these results have practical relevance. These findings are important for programs aiming to increase intercultural competence among their volunteers.

Duration

The finding that cultural contact sustained over longer durations will increase volunteers' perception of intercultural competence are consistent with Kim's (1995) model of intercultural adaptation, which emphasizes that cultural learning is a *continuous* process occurring in regular cycles over time. In this sense, short-term experiences may mildly increase ICC, while longer experiences will have a greater effect on ICC.

Some empirical research and stage theories of intercultural growth slightly complicate the interpretation of these findings. The findings in this study are expressed as a linear relationship, and suggest that each successive week of volunteering is associated with slightly higher levels of ICC. However, Lysgaard's (1955) and Ogberg's (1960) stage theories of growth suggest that a minimum amount of time may be required for a volunteer to overcome the initial euphoria (honeymoon) and disillusionment (crisis) stages of cultural contact, and to learn from the new cultural experiences (Adler, 1975). The fact that 46 percent of volunteers in this study served for less than four months could help explain why the effect size of duration on ICC is relatively weak.

Another reason that the effect size is relatively small may be related to ICC as self-report. Because survey responses are based on self-report, ratings of intercultural competence depend on a volunteer's level of self-awareness. Short-term volunteer experiences are often the first opportunity individuals have to interact directly with a host

culture, which are generally marked by excitement and euphoria (Adler, 1975). It may

not be until later, when volunteers serve for longer durations, that they are challenged

with more significant adversities such as, "language barriers, questions of etiquette,

personal space issues, questions of duty, and discernible cultural ignorance" (WorldTeach

Volunteer survey response). Volunteers serving for longer durations may have more

frequent exposure to situations that challenge their perceived levels of cultural

competence. As long-term volunteers confront culturally complicated situations, they

may realize that they actually have less ICC than previously assumed, thereby decreasing

their *perception* of ICC. Long term volunteers may also experience greater anxiety, and

may become stuck in the stages of disillusionment (Lysgaard, 1955), crisis (Ogberg,

1960), or disintegration (Adler, 1975) of culture shock, whereas short-term volunteers

may not have sufficient time to enter these stages. To the degree that short-term

volunteers remain in the euphoria stage of culture shock, they may have an inaccurate

perception of their true level of ICC.

Another possible explanation for duration's small effect size could be related to

the length of time from the conclusion of the volunteer experience to the administration

of the survey, which spanned two to four years for this sample. This space may have

given volunteers additional time to interact with diverse peoples and cultures in the

interim or reflect on their international experiences after they returned to their home

countries. This possibility was not assessed in the survey and could not be tested.

However, open-ended survey responses provide some insight into this explanation. For

instance, one short-term volunteer stated that "even in spite of the fact that my experience

was short, it helped continue the process of opening my mind to other cultures and

worldviews" (CCS Volunteer survey response). Upon returning, short-term volunteers may frequently remind themselves of, and reflect on, their international experience. Over time, these memories may lead to increased intercultural competence—independent of the length of the initial placement.

Similar reasoning may also help explain why duration of service is particularly important for those that do not reflect highly on their volunteer experiences. It is reasonable to suggest that for volunteers staying only a few weeks to a month in a new culture, the effect of reflection and dialogue with staff or other volunteers may have a stronger impact on ICC than for volunteers who stay for a year or more. Volunteers staying for longer periods may have many alternative means and methods to experience and understand the host culture, such as being involved with community groups, working on projects and teams, or frequently observing informal and formal interactions.

It should be noted that the study design limits what can truly be said about the effect of duration of ICC. Duration and ICC are associated, but it is unknown which variable precedes the other. It is equally possible that volunteers with high levels of ICC were more comfortable in intercultural situations initially, and desired to serve for longer durations in a foreign culture. In contrast, respondents with low perceived intercultural competence may have only desired to serve for short trips abroad. Future longitudinal analyses, which are currently underway, will help determine the true direction of this relationship.

Immersion

The finding that immersion has a significant effect on ICC is consistent with both theoretical and empirical research. Direct interaction with the host culture may increase perceptions of equal status, may improve language competence and communication, and may enhance psychological isolation and anxiety that encourages cultural learning. Living with a host family may also increase volunteers' opportunities to observe, and to interact with the host culture (Cohn & Wood, 1985). Contact theory and social identity theory suggest that direct interaction with the host culture may provide more accurate information about others and their cultures, which are necessary components of ICC (Deardorff, 2008; Turner, 1982). In this sense, the findings confirm the tenets of these theories.

As with other independent variables in this study, ascertaining the true direction of the relationship between ICC and immersion is not possible without longitudinal data. It is probable that volunteers with high levels of ICC were more comfortable staying with a host family, whereas respondents with low perceived intercultural competence desired to live with other volunteers who shared a similar cultural background.

Overall, the effect size of immersion on ICC is relatively small. This may be partly related to the relatively poor operationalization of the immersion concept. A single item measuring if a volunteer "lived with a host family" is a relatively poor indicator of cultural immersion. Housing is only one dimension of the larger immersion construct (Engle & Engle, 2003). The single survey item also only asks if volunteers lived with a host family, but does not ascertain the nature of the volunteers' alternative living arrangements. The inclusion of additional items measuring the intensity of intercultural experiences such as close friendships, romantic encounters, the volunteers work context,

or close involvement with local groups and organizations may provide a more inclusive and valid measure of immersion, and may produce different results.

Another reason for the relatively low effect size of immersion is that housing may increase contact with a host culture, but may also create additional challenges that expose serious differences between cultures; thereby decreasing a volunteer's *perception* of her or his intercultural competence. As one long-term volunteer stated, "By having to conform to my volunteer organization's requirements about housing and other things, my family and community there were forced to discuss and deal with things that are not socially or culturally appropriate." Volunteers that that are compelled to confront cultural clashes through greater immersion in the host culture may find they are less able to deal with these challenges than they would have previously assumed.

Guided Reflection

Results from this study do not support the suggestion that reflection is a catalyst for longer and more culturally-immersed periods across borders, thereby multiplying the effects of cultural contact intensity. Although guided reflection is positively associated with ICC, the impact of guided reflection appears to fade with the amount of time spent in a new culture. This finding is fairly consistent with theoretical and empirical research asserting that differences in cultural contact intensity depend on guided reflection (Mezirow, 1997; Pusch & Merrill, 2008; Unterhalter et al., 2002).

As a direct effect, intercultural communication theories suggests that reflecting on new cultural experiences helps individuals explore new assumptions, roles, relationships, and actions needed for high intercultural competence (Kim & Ruben, 1988; Taylor,

1998). As a moderating effect, these findings suggest that "mere exposure" to a culture may help to increase intercultural competence, but mostly over the long-term (A. Y. Lee, 2001). Short-term experiences may need to be augmented by guided reflection to achieve better results (Reiman, 1999).

As touched upon earlier, stage theories of intercultural growth can help explain why guided reflection may be particularly helpful for short-term volunteer experiences. The initial stages of cultural adaptation lead to "culture shock", where those confronting new cultural realities experience shocking and distressful emotions (Alder, 1975; Ogberg, 1960; Ward et al., 2001). Volunteers serving for a short term are most likely to be in this particular stage of the cultural adaptation process. In order to make sense of these new realities, situations that are anxiety-provoking may be paired with reflection and interpersonal dialogue (Ogberg, 1960; Pitner, 2007). Strong emotions associated with these initial experiences such as guilt, distress, or outrage at the way foreign cultures handle situations may encourage critical reflection, and intercultural learning (Taylor, 1994).

Given the limitations of this study, it is also possible that reflection artificially moderates the relationship between duration and ICC due to measurement error from retrospective recall. Over the long term, individuals typically adapt and normalize thoughts to be consistent with new cultural realities (Kim, 2001). This normalization process often causes individuals to forget the initial shock and distress, and quite possibly the intensity of related reflection and dialogue (Ogberg, 1960). If short-term volunteers fail to normalize the experience, they may have a brighter recollection of their internal struggle and subsequent reflection.

In addition, higher intercultural competence may not be a result of guided reflection; guided reflection may be a result of higher intercultural competence. Volunteers with greater intercultural competence may feel more comfortable speaking with community members and staff about their experiences, or may be more sensitive to intercultural differences and thereby reflect more frequently on these differences.

Contact Reciprocity

The finding that contact reciprocity is significantly associated with an increased perception of intercultural competence suggests that mutually shared goals combined with perceptions of relative equality may contribute to reduced in-group and out-group distinctions. Breaking down these barriers may contribute to enhanced intercultural learning, understanding others worldviews, and respect for diversity—all important dimensions of ICC (Deardorff, 2008; Gudykanst, 1979). This finding is yet another voice corroborating the importance of Allport's conditions of intergroup contact (see Pettigrew and Tropp, 2006). The fact that reciprocity is the strongest predictor, and explains more variance than any other single variable in the model, illustrates the relative importance of reciprocity on volunteers' perceptions of ICC.

One reason why contact reciprocity has a positive main effect on ICC may be related to volunteers' service experiences. When volunteers approach their work with a paternalistic approach or with goals that are not mutually shared by the host organization or community they, by definition, fail to practice ICC. Volunteers who engage in reciprocal activities may gain a better appreciation of indigenous approaches and cultural

contributions, and may thereby learn to be more flexible and accommodating in their thinking and ideas.

In retrospect, the secondary hypothesis, that volunteering under conditions of high contact reciprocity would serve as a catalyst to increase the effect of duration and immersion on volunteers' intercultural competence, had rather weak theoretical foundations. Contact theory, upon which this hypothesis was based, does suggest that Allport's conditions will increase the positive outcomes of cultural contact. However, assuming that all volunteers had some contact with those in the host culture while volunteering, contact theory does not predict that reciprocal conditions should lead to different results for those living with or without a host family, or for those volunteering for a shorter or longer term. If volunteers experience direct interaction with those in the host culture, there is little reason to believe that reciprocity moderates the relationship between cultural contact and ICC.

Given differences in the conceptualization of contact reciprocity as a construct, as discussed in chapter three, the contribution of this composite measure to theoretical scholarship may be limited. The concept presented in this research does not assess whether volunteers and community members were "mutually gratified" (Gouldner, 1960). As the survey only elicited responses from volunteers, it was not possible to ascertain whether there was mutual gratification between volunteers and community members, or even if there were shared perceptions of equality. In this sense, this measure only truly gauges *volunteers' perceptions* of mutuality and equality. A true measure of reciprocity should include responses from both volunteers and community members.

As with other variables in this model, it is possible that volunteers with higher initial levels of intercultural competence initiated and maintained more reciprocal relationships with those in the host community. It is difficult to know which came first. Despite this ambiguity, reciprocity and intercultural competence are correlated, and both are important program goals. It appears that aiming for higher reciprocity will increase volunteers' ICC, and perhaps vice versa.

Covariates

There appear to be important programmatic effects that remain unexplained in the model. Even after controlling for differences in length of the program, institutional support, and other important programmatic features, returned CCS volunteers are still more likely to rate themselves more highly on intercultural competence than WorldTeach volunteers. This may be due to unobserved differences between programs at the institutional level, or may be due to distinct differences in volunteers at the individual level that each program attracts. Compared to other variables in the model, the relatively large effect size of the volunteer program indicates that greater investigation is needed to assess the nature of these differences. Some of these differences may include geographic location, individual or group placement, levels of compensation for volunteers' time, or other events and characteristics outside of the volunteers' placements.

The significant effect of previous international experience on ICC is consistent with theories of cultural learning outlined earlier in this study (Gibson & Zhong, 2005). Although the voluntary nature of service placements are expected to have a greater effect on ICC than other types of travel and tourism (Dewey, 1963; Reiman, 1999), the mere

exposure effect also predicts that some intercultural growth and learning will occur with all types of international travel as individuals are repeatedly exposed to cultures different than their own (Pettigrew, 1998; Zajonc, 1998). This finding may also suggest that individuals with higher ICC may simply have a higher propensity to volunteer internationally. The cross-sectional nature of this study limits causal explanations.

The finding that females rate themselves higher on intercultural competence than males may be attributed to sex differences in communication styles and personality. On the whole, women are often considered more competent at expressing themselves emotionally and verbally than men—and are more invested in maintaining positive and affirming relationships (Saechou, 1994). Attributes more commonly attributed to women such as empathy and greater understanding of the needs of others (Beutel & Marini, 1995; Kessler & McLeod, 1984), are also associated with higher intercultural competence (Gibson & Zhong, 2005).

Implications

Given the limitations of the data, study design, and analysis procedures, findings from this study should be interpreted with caution. Nevertheless, to the degree that service duration, cultural immersion, guided reflection, and reciprocal contact have significant effects on ICC, these findings can arm policymakers and practitioners with knowledge to support volunteer-sending programs that aim to achieve ICC as a core objective.

Given the importance of ICC in today's global marketplace (Barker, 2000; Matveev & Milter, 2004; Tichy, McGill, & Clair, 1997), these findings also suggest an

important place for short and longer-term volunteering in corporate service programs. Through international service, employees may become more creative and flexible in their problems-solving, may better manage stress, may be more respectful of diversity in the workplace, may be more empathic to the needs and concerns of others, and may be more social responsible on a global scale (Abbe et al., 2007; Tichy et al., 1997). Through enhanced ICC, stakeholders from multiple sectors can promote peace and understanding between cultures and greater global awareness among volunteers (Deardorff, 2004; Osler & Vincent, 2002).

To some extent, these findings can also be generalized to students engaged in service-learning experiences or to others performing international service placements. In fact, understanding the effects of service on students may be especially important for service-learning programs as experiential education and growth is an important programmatic priority for service-learning (Furco, 1996). Students may learn to respect indigenous methods and practices, to appreciate cultural and ethnic diversity, and to engage more fully in international issues and affairs. International service experiences may be particularly helpful at developing culturally competent practitioners as students engage education directly through community-based placements (Dewey, 1963; Furco, 1996). As findings from this study suggest, however, positive outcomes are moderately associated with individual and institutional characteristics including duration of service, cultural immersion, guided reflection, and contact reciprocity.

Duration

These findings are relevant to recent policy proposals in the US, which support

short-term volunteering. In the past, the lion's share of public funds for international

volunteering and service in the United States have been reserved for the Peace Corps—a

long-term, two year model. However, the newly legislated Serve America Act and

USAID's Volunteers for Prosperity program have recently received significant financial

support to expand opportunities for short-term service ("H.R. 1388," 2009). In addition,

the Global Service Fellowship Program, which exclusively supports short-term service, is

under legislative review, as are discussions to retool the Peace Corps for short-term

service for older adults, and shortened "gap-year" service opportunities for high school

graduates (Quigley & Rieffel, 2008).

To the degree that intercultural competence is the principal aim of the volunteer

program, service duration may be an important programmatic consideration. Over time

the duration of service appears to have a significant effect on intercultural competence.

However, this effect is relatively small in practical terms. The difference in perceived

ICC between a month of service and a year of service is minimal. If a month of service is

nearly as effective as a year of service at achieving higher levels of ICC, encouraging

shorter durations may support a more effective use of effort and public resources. These

conclusions should be tempered, however, in consideration of the multiple aims of IVS

programs, the limitations of this study, and findings from related studies on this topic,

which emphasize the importance of service duration.

The finding that duration contributes even minimally to ICC is a modest

contribution to current research on IVS. Samples from previous research studies, which

are referenced in this report, use only service-learning and study abroad students--not international volunteers. While these populations are similar, service-learning and study abroad typically emphasize pre-departure orientation, regular support, and experiential education, which can affect results (Furco, 1996). To the degree that international volunteer programs do not provide the same level of support, this may alter how duration affects ICC outcomes. In light of these differences, this is one of the first studies to examine the effect of service duration on international volunteers' intercultural competence.

While ICC may be the principal goal for some organizations, most programs hope to achieve a variety of outcomes on volunteers, home communities, host organizations, and host communities (Sherraden et al., 2008). Duration of service may be crucial for achieving these additional outcomes and is likely related to differences in volunteers' motivations (Devereux, 2006), their level of professionalism (Roberts, 2004), their overall impact on social development outcomes (Sherraden & Benítez, 2003; Simpson, 2004), and their effectiveness at increasing host-organization capacity (CVO, 2007). Given the importance of duration on these other aims, organizations must weigh the importance of duration in consideration of each of its program goals. Future research will determine the extent to which duration is associated with additional outcomes on host organizations and communities.

Immersion

Results of this study suggest that living together with other volunteers or in housing arrangements other than with a host family may be less effective at increasing

ICC. Given the relatively small effect size, this may or may not be a justification for housing volunteers in alternative housing arrangements. As with service duration, programs may have many practical reasons for placing volunteers with host families, including proximity to the work site, greater opportunities for friendship, knowledge of the host community and local context, language learning, or expenses and resource-related concerns. However, if increased ICC is the primary aim, it may benefit volunteers to live with host families where they are likely to be immersed in the host culture.

Although this study only assesses variations in volunteers' living arrangements, which is a rather poor operationalization of the concept of "immersion" in its wider sense, it does support the conclusion that cultural immersion acts as an "intensity factor" for intercultural learning (Paige, 1993). Future research can examine other indicators of the concept of immersion such as a volunteer's work context, personal relationships with host country nationals, and local civic involvement. Using a wider definition of this concept may reveal greater effects on ICC outcomes.

Guided Reflection

While programs of any length that place a high emphasis on guided reflection may increase their effectiveness at promoting ICC among their volunteers, short-term programs may see an even greater return. Considering the moderating effect of guided reflection, shorter term programs aiming to increase ICC of their volunteers can intentionally create opportunities for guided reflection and deliberately build these types of experiences into their programming. Through dialogue, program staff and project

managers can help volunteers connect their practice experiences to issues of global poverty, social justice, and cultural diversity.

Opportunities for guided reflection can consist of discussions with program staff, but may also include discussions with those in the host community or seminars and presentations by community members. Service-learning programs often advocate the use of the DIE (describe, interpret, evaluate) method to reduce immediate judgments about the culture and to explore alternative considerations and interpretations of intercultural behaviors (J. M. Bennet, Bennet, & Stillings, 1977; Savicki, 2008b). Dialogue with culturally competent volunteers, family members, or friends may also encourage reflection, as can journaling, emailing, or blogging.

It is important that dialogue and reflection be guided by mentors, however, as reflection in isolation has the potential to lock in previous beliefs, in-group mentalities, and ethnocentric viewpoints (Simpson, 2004). Hypothetically, mutual reflection and dialogue guided by those who are not culturally competent may actually result in decreased intercultural competence. This has valuable programmatic implications for appointing staff responsible for training and facilitating the volunteer placement. This study does not assess the intercultural competence of program staff, community members or other volunteers with whom the volunteers speak about their experiences. Programs that facilitate guided reflection may want to research this area in greater detail to determine the association between staff ICC and volunteer ICC.

It should be noted that building guided reflection into programming does not negate the importance of duration on ICC outcomes. The effect size of duration on ICC is significant; independent of whether guided reflection functions as a moderator. For

programs and policymakers, this means that building guided reflection into a program should not be used as a justification for decreasing the duration of international volunteer experiences aiming to enhance volunteers ICC.

Contact Reciprocity

The significant effect of contact reciprocity on ICC is a substantial finding of this study. Reciprocity is often promoted as a priority for service programs, but the justification for reciprocal practice is generally tied to outcomes on the host organization and community (Cruz & Giles, 2000; Porter & Monard, 2001; Pusch & Merrill, 2008; Sherraden, 2001). This study suggests that reciprocity may not only benefit the host community, but may also increase volunteers' intercultural competence.

The sizable effect of reciprocity on ICC indicates that programs which place a high priority on matching volunteer activities with local priorities may attract or produce volunteers with higher perceptions of ICC. Programs can promote intercultural learning by ensuring that volunteers and local staff share similar goals, that volunteer activities match local priorities, and that these activities are requested and desired by the host community.

Development-based volunteer programs have long asserted that projects involving international volunteers should be demand-driven (Leigh, 2005; Smith & Elkin, 1981). Likewise, dominant state-backed volunteer agencies such as AVI, VSO, and Peace Corps claim that projects originate from economic and technical demand in developing countries (D. Bird, 1998). Despite these assertions, volunteer programs are frequently criticized for being "volunteer-driven" or primarily accountable to funders, sending-

organizations, or volunteers (Engel, 2006; Georgeou, 2007; Henderson, 2002). In order to meet conditions of reciprocity, programs must be equally accountable to host communities by aligning their goals, the availability and eligibility of their volunteers, and their institutional capacity with the needs and demands of the host community.

The practice of reciprocal volunteering, where activities are driven by the priorities of the host community, may also be an important element of experiential education. These experiences have the potential to teach volunteers that global approaches, which may be consistent with their Western paradigms, may not be appropriate in the local context. As volunteers practice alternative practice methods, which may be contrary to their preconceived paradigms but work effectively in an indigenous context, they may learn that their prior perspectives are not always the most correct or effective.

Despite the benefits of contact reciprocity, meeting these conditions may limit the capacity of some sending volunteer programs. Many projects instigated by host communities require that volunteers have a specific skill set or a high level of educational or occupational experience (Plewes & Stuart, 2007). Often, the supply of skilled volunteers is low, while the availability of unskilled volunteers is comparatively high. Full reciprocity may be difficult to achieve if volunteer supply and demand are not matched. For instance, if the Peace Corps is restructured to support "gap year" assignments across borders for recent graduates (Quigley & Rieffel, 2008), the supply of high school graduates would likely increase. However, these young volunteers must have skills demanded by the host community if they hope to meet the conditions of reciprocity.

This reasoning provides yet another justification for designing and implementing participatory, community-driven projects and activities (Rehnstrom, 2000; World Bank, 1992). Intercultural competence encourages equalitarian, reciprocal sharing between cultures. Volunteers who engage in reciprocal activities recognize the beneficial contribution of local contexts and indigenous approaches, and practice ICC as they approach a service experience with learning readiness; open to understand the goals and needs of the host organization or community.

Future research should more carefully consider the effects of IVS on host-communities. Focusing exclusively on the effect of IVS on volunteers may lead to overly optimistic results. For instance, while volunteers may perceive equal status with community members and enhanced ICC, host-community members may not. One necessary condition of contact reciprocity, as specified by contact theory, is that status and power differences must be minimal or null. However, it is possible that while volunteers may perceive they have equal status, community members may feel that volunteers place themselves on higher ground as they provide services that would not otherwise be available (Devereux, 2008). Therefore, while contact with the community may enhance a volunteers' perception of intercultural competence, it may correspondingly create more rigid in-group and out-group distinctions from the perspective of community members (Turner, 1982). Assessing one population without the other may provide a biased view of overall outcomes.

Conclusion

These findings provide a foundation for future work in this area, and can arm practitioners and policymakers with knowledge to support volunteer-sending programs designed to achieve intercultural competence. Results indicate that these variables are consistent with theoretical expectations and are worth careful consideration when planning an international service experience to increase volunteers' intercultural competence. Regression coefficients indicate that contact reciprocity may be the most important programmatic priority, followed by guided reflection, duration, and immersion.

Many of the limitations outlined in this study will be addressed in future research already underway, which will look more carefully at the effects of volunteering on host-community members, and will have the added advantage of quasi-experimental design to make stronger claims on impacts and causal mechanisms. Identifying and studying how these variations affect outcomes are especially relevant today given the recent policy proposals aimed to expand and support a greater variety of international service program models.

This study marks the initiation of a series of future work on the impacts of international volunteering on volunteers, organizations and host communities. It is among the first to specifically identify and test how variations in volunteer characteristics, volunteer-coordinating organizations, and international service characteristics affect identified outcomes (Powell & Bratović, 2006; Sherraden et al., 2008). While some models may be effective at achieving outcomes such as intercultural competence, they may be ineffective at providing development aid or assistance to host-communities, or achieving a range of other stated goals of organization. Future research will expand

knowledge in this area by examining how similar variations in institutional models affect

alternative outcomes.

References

Abbe, A., Gulick, L. M. V., & Herman, J. L. (2007). *Cross-cultural competence in army leaders: A conceptual and empirical foundation*. Arlington, VA: U.S. Army Research Institute.

Abram, F. Y., Slosar, J. A., & Walls, R. (2005). Reverse mission: A model for international social work education and transformative intra-national practice. *International Social Work, 48*(2), 161-176.

Adler, P. S. (1975). The transitional experience: An alternative view of culture shock. *Journal of Humanistic Psychology, 15*(4), 13-23.

Aguinis, H. (1995). Statistical power problems with moderated multiple regression in management research. *Journal of Management, 21*(6), 1141-1158.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park: Sage Publications.

Akande, Y., & Slawson, C. (2000). A case study of 50 years of study abroad alumni. *International Educator, 9*(3), 12-16.

Alder, P. (1975). The transitional experience: An alternative view of culture shock. *Journal of Humanistic Psychology, 15*(4), 13-23.

Allport, G. W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.

Allum, C. (2007, September 17-19). *International volunteering and co-operation: New developments in programme models*. Paper presented at the IVCO 2007 Conference, Montreal, Canada.

Amir, Y. (1969). Contact hypothesis in ethnic relations. *Psychological Bulletin, 71*, 319-342.

Amir, Y. (1976). The role of intergroup contact in change of prejudice and race relations. In P. Katz & D. A. Taylor (Eds.), *Towards the elimination of racism* (pp. 245-308). New York: Pergamon Press.

Amir, Y., & Garti, C. (1977). Situational and personal influence on attitude change following ethnic contact. *International Journal of Intercultural Relations, 1*(2), 58-75.

Angell, R. C. (1969). *Peace on the march: Transnational participation*. New York: Van Nostrand Reinhold.

Bacon, S. M. (2002). Learning the rules: Language development and cultural adjustment during study abroad. *Foreign Language Annals, 35*, 637-646.

Bandow, D. (1990). National service: Unnecessary and unAmerican. *ORBIS-A Journal of World Affairs, 34*(3), 371-384.

Barker, C. M. (2000, January 21). *Education for international understanding and global competence.* Paper presented at the Carnegie Corporation Convention New York.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *51*(6), 1173-1182.

Battersby, P. (2002). Universities and global governance: An agenda for inclusive internationalism in tertiary education. In M. Singh (Ed.), *Global learning*. Sydney: Common Ground.

Bennet, J. M., Bennet, M. J., & Stillings, K. (1977). Description, interpretation, and evaluation: Facilitator's guidelines.   Retrieved June 22, 2009, from http://www.intercultural.org/resources.php

Bennet, M. J. (1993). Towards ethnorelativism: A developmental model of intercultural

    sensitivity. In R. M. Paige (Ed.), *Education for the intercultural experience* (pp.

    21-71). Yarmouth, ME: Intercultural Press.

Bennett, J. M. (2008). On becoming a global soul: A path to engagement during study

    abroad. In V. Savicki (Ed.), *Developing intercultural competence and*

    transformation: Theory, research, and application in international education (pp.

    13-31). Sterling, VA: Stylus.

Beutel, A. M., & Marini, M. M. (1995). Gender and values. *American Sociological*

    Review, 60(3), 436-448.

Bhaskar-Shrinivas, P., Harrison, D. A., Shaffer, M. A., & Luk, D. M. (2005). Input-based

    and time-based models of international adjustment: Meta-analytic evidence and

    theoretical extensions. *Academy of Management Journal, 48*, 257-281.

Bird, A., & Osland, J. S. (2004). Global competencies: An introduction. In H. W. Lane,

    M. L. Maznevski, M. Mendenhall & J. McNett (Eds.), *Blackwell handbook of*

    global management: A guide to managing complexity (pp. 57-79). Malden, MA:

    Blackwell.

Bird, D. (1998). *Never the same again: A history of VSO*. Cambridge: Lutterworth Press.

Boss, J. (1994). The effect of community service work on the moral development of

    college ethics students. *Journal of Moral Education, 23*(2), 183-198.

Boud, D., Keogh, R., & Walker, D. (1985). Promoting reflection in learning: A model. In

    D. Boud, R. Keogh & D. Walker (Eds.), *Reflection: Turning experience into*

    learning (pp. 18-40). London: Routledge.

Brewer, M. (1986). The role of ethnocentrism in intergroup conflict. In S. Worschel & W. Austin (Eds.), *Psychology of Intergroup Relations*. Chicago: Nelson Hall.

Brislin, R. (1981). *Cross cultural encounters: Face-to-face interaction*. New York: Pergamon.

Chilton, S. G. (1978). Volunteering as a citizen diplomat. *International Educational and Cultural Exchange, 14*(1), 8-12.

Chinn, P. W. U. (2006). Preparing science teachers for culturally diverse students: Developing cultural literacy through cultural immersion, cultural translators and communities of practice. *Cultural Studies of Science Education, 1*(2), 367-402.

CILT. (2004). *Intercultural Competence Assessment (INCA)*. London, UK: CILT, the National Centre for Languages & Leonardo da Vinci II.

Clark, J. D. (Ed.). (2003). *Globalizing civic engagement: Civil society and transnational action*. United Kingdom: Earthscan.

Cohen, P., Cohen, J., West, S. G., & Aiken, L. S. (2002). *Applied multiple regression/correlation for the behavioral sciences* (3rd ed.). Mahwah, New Jersey: Lawrence Erlbaum.

Cohn, S. F., & Wood, R. E. (1985). Foreign aid at the grass roots: The interaction of Peace Corps volunteers with host country people. *Human Organization, 44*(2), 167-171.

Cohn, S. F., Wood, R. E., & Haag, R. (1981). U.S. aid and third world women: The impact of Peace Corps programs. *Economic Development and Cultural Change, 29*(4), 795-811.

Cox, D., & Pawar, M. (2006). *International social work*. Thousand Oaks, London, New Delhi: Sage Publications.

Crabtree, R. D. (2008). Theoretical foundations for international service-learning. *Michigan Journal of Community Service-Learning, 15*(1), 18-36.

Cruz, N. I., & Giles, D. E. (2000). Where's the community in service learning research? *Michigan Journal of Community Service-Learning, 7 (Fall)*, 28-34.

CVO. (2007). *The impact of international volunteering on host organizations: A summary of research conducted in India and Tanzania*. Ireland: Comhlámh's Volunteering Options.

Daniel, P., French, S., & King, E. (2006). *A participatory methodology for assessing the impact of volunteering for development: Handbook for volunteers and programme officers*. Bonn, Germany: United Nations Volunteers & Centre for International Development Training.

Davis, S. L., & Finney, S. J. (2006). A factor analytic study of the Cross-Cultural Adaptability Inventory. *Educational and Psychological Measurement, 66*(2), 318-330.

Davis Smith, J. (2004). Civic service in Western Europe. *Nonprofit and Voluntary Sector Quarterly, 33*(4), 64S-78S.

Deardorff, D. K. (2004). *The identification and assessment of intercultural competence as a student outcome of internationalization at institutions of higher education in the United States* Unpublished Doctoral dissertation, North Carolina State University, Raleigh.

Deardorff, D. K. (2008). Intercultural competence: A definition, model, and implications for education abroad. In V. Savicki (Ed.), *Developing intercultural competence and transformation: Theory, research, and application in international education* (pp. 32-52). Sterling, VA: Stylus.

Devereux, P. (2006). *International volunteers for development: pursuing capacity development and sustainability with solidarity*. Paper presented at the Civil Society and Human Security: Raum Jai: International Society for Third Sector Research.

Devereux, P. (2008). International volunteering for development and sustainability: Outdated paternalism or a radical response to globalisation. *Development in Practice 18*(3), 357 - 370.

Dewey, J. (1933). *How we think*. Boston: Heath.

Dewey, J. (1963). *Experience and education*. New York: Macmillan.

Dingle, A., Sokolowski, W., Saxon-Harrold, S. K. E., Smith, J. D., & Leigh, R. (Eds.). (2001). *Measuring volunteering: A practical toolkit*. Washington DC and Bonn, Germany: Independent Sector and United Nations Volunteers.

Dirkx, J. M. (1998). Transformative learning theory in the practice of adult education: An overview. *Journal of Lifelong Learning, 7*, 1-14.

Dovidio, J. F., Gaertner, S. L., & Kawakami, K. (2003). Intergroup contact: The past, present, and the future. *Group Processes & Intergroup Relations, 6*(1), 5-21.

Dwyer, M. (2004). More is better: The impact of study abroad duration. *Frontiers, The Interdisciplinary Journal of Study Abroad, 10*, 151-163.

Engel, S. (2006, July 9-12). *International volunteering--is it becoming too institutionalized?* Paper presented at the International Society for Third Sector Research, Bangkok, Thailand.

Engle, J., & Engle, L. (2003). Study abroad levels: Toward a classification of program types. *Frontiers, The Interdisciplinary Journal of Study Abroad, 9*, 1-20.

Erwin, T. D., & Coleman, P. K. (1998). The influence of intercultural experiences and second language proficiency on college students' cross-cultural adaptability. *international Education, 28*, 5-25.

Exum, H. (1980). Ego development: Using curriculum to facilitate growth. *Character Potential, 9*, 121-128.

Eyler, J., Giles, D. E., & Braxton, J. (1997). The impact of service-learning on college students. *Michigan Journal of Community Service-Learning, 4*, 5-15.

Fantini, A. E. (2007). *Exploring and assessing intercultural competence.* Brattleboro, VT: Federation of the Experiment in International Living.

Feldman, D. C., & Thomas, D. C. (1992). Career management issues facing expatriates. *Journal of International Business Studies, 23*, 271-293.

Ference, R. A., & Bell, S. (2004). A cross-cultural immersion in the U.S.: Changing preservice teacher attitudes toward Latino ESOL students. *Equity & Excellence in Education, 37*(4), 343-350.

Fong, R., & Furuto, S. B. C. L. (2001). *Culturally competent practice: Skills, interventions, and evaluations.* Boston: Allyn & Bacon.

Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology, 51*(1), 115-134.

Furco, A. (1996). Service-learning: A balanced approach to experiential education. In B. Taylor (Ed.), *Expanding boundaries: Service and learning* (pp. 2-6). Washington, DC: Corporation for National Service.

Gelman, A., & Hill, J. (2007). *Data analysis using regression and multilevel/hierarchical models*. Cambridge; New York: Cambridge University Press.

Georgeou, N. (2007). *Tense relations: The tradition of hōshi and the emergence of borantia in Japan.* Unpublished Masters Honors Thesis, University of Wollongong.

Gibson, D., & Zhong, M. (2005). Intercultural communication competence in the healthcare context. *International Journal of Intercultural Relations, 29*(5), 621-634.

Giles, D. E., & Eyler, J. (1994). The theoretical roots of service-learning in John Dewey: Toward a theory of service-learning. *Michigan Journal of Community Service-Learning, 1*(1), 77-85.

Gouldner, A. W. (1960). The Norm of Reciprocity: A Preliminary Statement *American Sociological Review, 25*(2), 161-178.

Gray, M., & Fook, J. (2004). The quest for a universal social work: Some issues and implications. *Social Work Education, 23*(5), 625-644.

Grusky, S. (2000). International service learning: A critical guide from an impassioned advocate. *The American Behavioral Scientist, 43*(5), 858-867.

Gudykanst, W. B. (1979). Intercultural contact and attitude change. A review of literature

    and suggestions for future reserach. *International and Intercultural*

    Communication Annual, 4, 1-16.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006).

    Multivariate data analysis (6th ed.). New Jersey: Pearson Prentice Hall.

Hammer, M. R. (2005). *Assessment of the impact of the AFS study abroad experience*.

    New York: AFS Intercultural Programs, Inc.

Hammer, M. R., Bennet, M. J., & Wiseman, R. (2003). Measuring intercultural

    sensitivity: The Intercultural Development Inventory. *International Journal of*

    Intercultural Relations, 27, 421-443.

Hammer, M. R., Gudykanst, W. B., & Wiseman, R. L. (1978). Dimensions of

    intercultural effectiveness: an exploratory study. *International Journal of*

    Intercultural Relations, 2, 382-393.

Healy, L. M. (2001). *International Social Work: Professional action in an interdependent*

    world. Oxford: Oxford University Press.

Henderson, S. L. (2002). Selling civil society: Western aid and the nongovernmental

    organizational sector in Russia. *Comparative Political Studies, 35*(2), 139-158.

Hills, G., & Mahmud, A. (2007). *Volunteering for impact: Best practices in international*

    corporate volunteering: FSG Social Impact Advisors, Pfizer Inc., & the

    Brookings Institution.

Hironimus-Wendt, R. J., & Lovell-Troy, L. (1999). Grounding service learning in social

    theory. *Teaching Sociology, 27*(4), 360-372.

Hochfeld, T. (2002). Striving for synergy: Gender analysis and indigenous social work practice in South Africa. *Social Work/Maatskaplike Werk, 38*(2), 105-118.

Hoff, J. G. (2008). Growth and transformation outcomes in international education. In V. Savicki (Ed.), *Developing intercultural competence and transformation: Theory, research, and application in international education* (pp. 53-73). Sterling, VA: Stylus.

Hong, S.-I., Morrow-Howell, N., Tang, F., & Hinterlong, J. (2008). Engaging Older Adults in Volunteering: Conceptualizing and Measuring Institutional Capacity. *Nonprofit and Voluntary Sector Quarterly*, 0899764008317207.

Horton, N. J., Lipsitz, S. R., & Parzen, M. (2003). A potential for bias when rounding in multiple imputation. *The American Statistician, 57*, 229-232.

Humphrey, D. (2007). *Intercultural communication competence: The state of knowledge*. London: CILT, The National Centre for Languages.

Hunter, A. (2008). Transformative learning in international education. In V. Savicki (Ed.), *Developing intercultural competence and transformation: Theory, research, and application in international education* (pp. 92-108). Sterling, VA: Stylus.

IASSW/IFSW. (2005). *Global standards for the education and training of the social work profession*. Adelaide, Australia: International Association of Schools of Social Work and International Federation of Social Workers.

Ingraham, E., & Peterson, D. (2004). Assessing the impact of study abroad on student learning at Michigan State University. *Frontiers, The Interdisciplinary Journal of Study Abroad, 10*, 83-100.

IVPA. (2006, April 14, 2007). International Volunteer Programs Association Online. Retrieved April 14, 2007, from http://www.volunteerinternational.org/index.htm

IVR. (2004). *Volunteering impact assessment toolkit: A practical guide for measuring the impact of volunteering*. London: Institute for Volunteering Research.

IVR. (2006). *Volunteering for all? Exploring the link between volunteering and social exclusion*. London: Research Bulletin: Institute for Volunteering Research.

Jaccard, J., & Turrisi, R. (2003). *Interaction effects in multiple regression* (2nd ed.). Thousand Oaks, CA: Sage.

Jaccard, J., Wan, C. K., & Turrisi, R. (1990). The detection and interpretation of interaction effects between continuous variables in multiple regression. *Multivariate Behavioral Research, 25*(4), 467-478.

Jex, S. M., & Elacqua, T. C. (1999). Self-esteem as a moderator: A comparison of global and organization-based masures. *Journal of Occupational and Organizational Psychology, 72*, 71-81.

Johns, C., Joiner, A., Stenning, A., Latchford, Y., Madden, B., Groom, J., et al. (2002). *Guided reflection: Advancing Practice*. Oxford: Wiley-Blackwell.

Jolliffe, I. (2002). *Principal component analysis* (2nd ed.). New York: Springer.

Jones, A. (2005). Assessing international youth service programmes in two low income countries. *Voluntary Action: The Journal of the Institute for Volunteering Research, 7*(2), 87-100.

Jones, K. (2006). Valuing diversity and widening participation: The experiences of access to social work students in further and higher education. *Social Work Education, 25*(5), 485-500.

Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement, 20*, 141-151.

Kelley, C., & Meyers, J. (1995). *The Cross-Cultural Adaptability Inventory*. Minneapolis, MN: National Computer systems.

Kessler, R. C., & McLeod, J. D. (1984). Sex differences in vulnerability to undesirable life events. *American Sociological Review, 49*(5), 620-631.

Kiely, R. (2005). Transformative international service-learning. *Academic Exchange Quarterly, 9*(1), 275-281.

Kim, Y. Y. (1995). Cross-cultural adaptation: An integrative theory. In R. L. Wiseman (Ed.), *Intercultural communication theory* (pp. 170-193). Thousand Oaks, CA: Sage.

Kim, Y. Y. (2001). *Becoming intercultural: An integrative theory of communication and cross-cultural adaptation*. London: Sage Publications.

Kim, Y. Y., & Ruben, B. D. (1988). Intercultural transformation: A systems theory. In Y. Y. Kim & W. B. Gudykanst (Eds.), *Theories in intercultural communication* (pp. 299-321). London: Sage.

Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood, NJ: Prentice Hall.

Lee, A. Y. (2001). The mere exposure effect: An uncertainty reduction explanation revisited. *Personality and Social Psychology Bulletin, 27*, 1255-1266.

Lee, C., & Farh, J.-L. (1999). The effects of gender in organizational justice perception. *Journal of Organizational Behavior, 20*(1), 133-143.

Leigh, R. (2005). The evolving nature of international service through the United Nations Volunteers. *International service and volunteering: developments, impacts and challenges, 7*(2), 27-34.

Lenth, R. V. (2006). Java Applets for Power and Sample Size [Computer software]: Retrieved October 30, 2008 from http://www.stat.uiowa.edu/~rlenth/Power.

Leong, C. H. (2007). Predictive validity of the Multicultural Personality Questionnaire: A longitudinal study on the socio-psychological adaptation of Asian undergraduates who took part in a study abroad program. *International Journal of Intercultural Relations, 31*(5), 545-559.

Little, R. J. A., & Rubin, D. B. (1987). *Statistical analysis with missing data*. New York: John Wiley & Sons.

Lord, R., & Maher, K. (1991). *Leadership and information processing: Linking perceptions and processes*. Boston, MA: Unwin and Hyman.

Lough, B. J. (2006). *International volunteerism in the United States, 2005* (CSD Working Paper 06-11). St. Louis, MO: Center for Social Development, Washington University.

Lough, B. J. (2009). Curricular blueprinting: The relevance of American social work education for international students. *Social Work Education, 28*(7), 792-802.

Lough, B. J., McBride, A. M., & Sherraden, M. S. (2009). *Measuring volunteer outcomes: Development of the International Volunteer Impacts Survey* (CSD Working Paper 09-31). St Louis, MO: Center for Social Development, Washington University.

Lysgaard, S. (1955). Adjustment in a foreign society: Norwegian Fullbright grantees

visiting the United States. *International Social Sciences Bulletin, 7*, 45-51.

Machin, J. (2008). *The impact of returned international volunteers on the UK: A scoping

review*. London: Institute for Volunteering Research.

Matveev, A. V., & Milter, R. G. (2004). The value of intercultural competence for

performance of multicultural teams. *Team Performance Management, 10*(5/6),

104-111.

McBride, A. M., Benítez, C., & Sherraden, M. (2003). *The forms and nature of civic

service: A global assessment* (CSD Research Report). St. Louis, MO: Center for

Social Development, Washington University.

McBride, A. M., & Lough, B. J. (forthcoming). Access to international volunteerism.

Submitted to Nonprofit Management and Leadership Journal.

McBride, A. M., Sherraden, M., & Menon, N. (2007). Directions in civic service

scholarship. In A. M. McBride & M. Sherraden (Eds.), *Civic service worldwide:

Impacts and inquiry* (pp. 238-253). New York: M.E. Sharpe.

Mead, G. H. (1934). *Mind, self, and society*. Chicago: University of Chicago Press.

Medina-López-Portillo, A. (2004). Intercultural learning assessment: The link between

program duration and the development of intercultural sensitivity. *Frontiers, The

Interdisciplinary Journal of Study Abroad, 10*, 179-199.

Menard, S., & Elliott, D. S. (1990). Longitudinal and cross-sectional data collection and

analysis in the study of crime and delinquency. *7, 1*(Justice Quarterly), 11-55.

Mezirow, J. (1991). *Transformative Dimensions of Adult Learning*. San Francisco:

Jossey-Bass.

Mezirow, J. (1996). Contemporary paradigms of learning. *Adult Education Quarterly, 46*(3), 158-172.

Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education, 74*, 5-12.

Mezirow, J. (2000). Learning to think like an adult: Core concepts of transformation theory. In J. Mezirow (Ed.), *Learning as transformation: Critical perspectives on a theory in progress*. San Francisco: Jossey-Bass.

Mol, S. T., Born, M. P., Willemsen, M. E., & Van Der Molen, H. T. (2005). Predicting expatriate job performance for selection purposes: A quantitative review. *Journal of Cross-Cultural Psychology, 36*, 590-620.

Mooney, L. A., & Edwards, B. (2001). Experiential learning in sociology: Service learning and other community-based learning initiatives. *Teaching Sociology, 29*(2), 181-194.

Myers-Lipton, S. (1996). Effect of a comprehensive service-learning program on college students' level of modern racism. *Michigan Journal of Community Service-Learning, 3*(44-54).

Nagy, G., & Falk, D. S. (2000). Dilemmas in international and cross-cultural social work education. *International Social Work, 43*(1), 49-60.

NASW. (2008). *Code of ethics of the National Association of Social Workers*. Washington DC: NASW Press.

Nunnally, J. C. (1967). *Psychometric theory*. New York: McGraw-Hill.

Ogberg, K. (1960). Cultural shock: adjustment to new cultural environments. *Practical Anthropology, 7*, 177-182.

Osler, A., & Vincent, K. (2002). *Citizenship and the challenge of global education*.

    London: Trentham Books.

Paige, R. M. (1993). On the nature of intercultural experience and intercultural education.

    In R. M. Paige (Ed.), *Education for the intercultural experience* (pp. 1-20).

    Yarmouth, ME: Intercultural Press.

Paige, R. M., Cohen, A. D., & Shively, R. L. (2004). Assessing the impact of a strategies-

    based curriculum on language and culture learning abroad. *Frontiers, The*

    Interdisciplinary Journal of Study Abroad, X(253-276).

Palthe, J. (2004). The relative importance of antecedents to cross-cultural adjustment:

    Implications for managing a global workforce. *International Journal of*

    Intercultural Relations, 28, 37-59.

Pawar, M., Hanna, G., & Sheridan, R. (2004). International social work practicum in

    India. *Australian Social Work, 57*(3), 223 - 236.

Perry, J. L., & Imperial, M. T. (2001). A decade of service-related research: A map of the

    field. *Nonprofit and Voluntary Sector Quarterly, 30*(3), 462-479.

Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology, 49*, 65-

    85.

Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory.

    Journal of Personality and Social Psychology, 90(5), 751-783.

Pickles, A. (2005). Missing data, problems and solutions. In K. Kempf-Leonard (Ed.),

    Encyclopedia of social measurement (pp. 689-694). Amsterdam: Elsevier.

Pitner, R. (2007). Social psychological theory and the potential for intergroup and

    ethnonational cooperation in civic service programs. In A. M. McBride & M.

    Sherraden (Eds.), *Civic Service Worldwide*. New York and London: M.E. Sharpe.

Plewes, B., & Stuart, R. (2007, September 17-19). *Opportunities and challenges for*

    international volunteer co-operation. Paper presented at the IVCO Conference,

    Montreal, Canada.

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research:

    Problems and prospects. *Journal of Management, 12*, 531-544.

Porter, M., & Monard, K. (2001). Ayni in the global village: Building relationships of

    reciprocity through international service-learning. *Michigan Journal of*

    Community Service-Learning, 8(1), 5-17.

Powell, S., & Bratović, E. (2006). *The impact of long-term youth voluntary service in*

    Europe: A review of published and unpublished research studies. Brussels:

    AVSO and ProMENTE.

Pusch, M. D., & Merrill, M. (2008). Reflection, reciprocity, responsibility, and commited

    relativism. In V. Savicki (Ed.), *Developing intercultural competence and*

    transformation: Theory, research, and application in international education (pp.

    53-73). Sterling, VA: Stylus.

Quigley, K. F. (2008). It takes a community. *WorldView, 21,* 3.

Quigley, K. F., & Rieffel, L. (2008). *What the Peace Corps could do for the United*

    States and the World. Paper presented at the Pocantico Conference, June 13-15.

Quiroga, D. (2004). Beyond the comfort zone. In H. Tonkin, S. J. Deeley, M. D. Pusch,

    D. Quiroga, M. J. Siegel, J. Whiteley & R. G. Bringle (Eds.), *Service-learning*

across cultures: Promise and achievement (pp. 131-145). New York: International Partnership for Service-Learning and Leadership.

Randel, J., German, T., Cordiero, M., & Baker, L. (2005). *International volunteering: trends, added value and social capital*. Oslo: Final Report: Development Initiatives.

Rehnstrom, J. (2000). *Development cooperation in practice: The United Nations Volunteers in Nepal*. Tokyo: United Nations University.

Reiman, A. J. (1999). The evolution of the social roletaking and guided reflection framework in teacher education: Recent theory and quantitative synthesis of research. *Teaching and Teacher Education, 15*, 597-612.

Reiman, A. J., Sprinthall, N. A., & Thies-Sprinthall, L. (1997). Service learning and developmental education: The need for an applied theory of role-taking and reflection. *International Journal of Group Tensions, 27*(4), 279-308.

Rieffel, L., & Zalud, S. (2006). *International volunteering: Smart power*. Washington DC: Policy Brief #155: The Brookings Institution.

Robert, P., Vilby, K., Aiolfi, L., & Otto, R. (2005). *Feasibility stufy on the establishment of a European Civil Peace Corps (ECPC)*. Belgium: Channel Research.

Roberts, T. (2004). *Are western volunteers reproducing and reconstructing the legacy of colonialism in Ghana? An analysis of the experiences of returned volunteers*. Unpublished Masters Thesis, University of Manchester, Manchester.

Rockliffe, B. (2005). International volunteering: An evolving paradigm. *Voluntary Action, 7*(2), 35-44.

Rosenthal, S. (2008). Volunteers rising. *WorldView, 21,* 15-16.

118

Rubin, D. B. (1987). *Multiple imputation for nonresponse in surveys*. New York: John

Wiley & Sons.

Rubin, D. B. (1996). Multiple imputation after 18+ years. *Journal of the American

Statistical Association, 91*, 473-489.

Saechou, T. (1994). *Verbal and nonverbal immediacy: Sex differences and international

teaching assistants.* Unpublished Dissertation, Louisiana State University,

Shreveport.

Savicki, V. (2008a). Experiential and affective education for international educators. In

V. Savicki (Ed.), *Developing intercultural competence and transformation:

Theory, research, and application in international education* (pp. 74-91). Sterling,

VA: Stylus.

Savicki, V. (Ed.). (2008b). *Developing intercultural competence and transformation:

Theory, research, and application in international education*. Sterling, VA:

Stylus.

Schafer, J. L. (1997). *Analysis of incomplete multivariate data*. New York: Chapman and

Hall.

Schafer, J. L. (1999). Multiple imputation: A primer. *Statistical Methods in Medical

Research, 8*, 3-15.

Selmer, J. (1999). Western business expatriates' coping strategies in Hong Kong vs. the

Chinese mainland. *Asia Pacific Journal of Human Resources, 37*, 92-105.

Serve America Act of 2009, H.R. 1388, 111 Cong., 2nd Sess.(2009).

Sherif, M. (1958). Superordinate goals in the reduction of intergroup conflict. *American

Journal of Sociology, 63*, 349-356.

Sherraden, M. S. (2001). Developing transnational social policy: A North American

    Community Service program. *Social Development Issues, 23*(3), 50-59.

Sherraden, M. S., & Benítez, C. (2003). *North American community service pilot project*

    (CSD Research Report). St. Louis, MO: Center for Social Development,

    Washington University.

Sherraden, M. S., Lough, B. J., & McBride, A. M. (2008). Effects of international

    volunteering and service: Individual and institutional predictors. *Voluntas:*

    International Journal of Voluntary and Nonprofit Organizations, 19(4), 395-421.

Sherraden, M. S., Stringham, J., Sow, S. C., & McBride, A. M. (2006). The forms and

    structure of international voluntary service. *Voluntas: International Journal of*

    Voluntary and Nonprofit Organizations, 17, 163-180.

Simpson, K. (2004). 'Doing development': The gap year, volunteer-tourists and a popular

    practice of development. *Journal of International Development, 16*, 681-692.

Smith, D. H., & Elkin, F. (1981). Volunteers, voluntary associations, and development:

    An introduction. *International Journal of Comparative Sociology, 21*(3-4), 151-

    162.

Spector, P. E. (1987). Method variance as an artifact in self-report affect and perceptions

    at work: Myth or significant problem? *Journal of Applied Psychology, 72*, 438–

    444.

Spector, P. E. (2006). Method variance in organizational research: Truth or urban legend?

    Organizational Research Methods, 9(2), 221-232.

Sprinthall, N. A., & Scott, D. (1989). Promoting psychological development, math achievement, and success attribtuion of female students through deliberative psychological education. *Journal of Counseling Psychology, 36*(4), 440-446.

Starr, J. M. (1994). Peace Corps service as a turning point. *International Journal of Aging and Human Development, 39*(2), 137-161.

Stevens, J. P. (1995). *Applied multivariate statistics for the social sciences* (3rd ed.). Mahwah, New Jersey Lawrence Erlbaum.

Sutton, R. C., & Rubin, D. L. (2004). The GLOSSARI Project: Initial findings from a system-wide research initiatives on study abroad learning outcomes. *Frontiers, The Interdisciplinary Journal of Study Abroad, X*, 65-82.

Sygall, S., & Lewis, C. (Eds.). (2006). *Building bridges: A manual on including people with disabilities in international exchange programs*

Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations* (pp. 94-109). Monterey, CA: Brooks-Cole.

Taylor, E. W. (1994). Intercultural competency: A transformative learning process. *Adult Education Quarterly, 44*(3), 154-174.

Taylor, E. W. (1998). *The theory and practice of transformative learning: A critical review* (Information Series No. No. 374). Columbus, Ohio: ERIC Clearinghouse on Adult, Career, and Vocational Education, Center on Education and Training for Employment, Ohio State University.

Tichy, N. M., McGill, A. R., & Clair, L. S. (Eds.). (1997). *Corporate global citizenship: doing business in the public eye*. San Francisco: New Lexington Press.

Ting-Toomey, S. (1999). *Communicating across cultures*. New York: Guilford Press.

TRAM. (2008). *Volunteer tourism: A global analysis*. Barcelona, Spain: Tourism Research and Marketing & the Association for Tourism and Leisure Education.

Turner, J. C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social identity and intergroup relations*. Cambridge: Cambridge University Press.

Unterhalter, E., McDonald, J., Swain, J., Mitchell, P., & Young, M. (2002). *Time IN: The impact of a VSO placement on professional development, commitment and retention of UK teachers*. London: Institute of Education.

van Oudenhoven, J. P., & Van der Zee, K. I. (2002). Predicting multicultural effectiveness of international students: The Multicultural Personality Questionnaire. *International Journal of Intercultural Relations, 26*, 679-694.

Vian, T., Richards, S. C., McCoy, K., Connelly, P., & Feeley, F. (2007). Public-private partnerships to build human capacity in low income countries: Findings from the Pfizer program. *Human Resources for Health, 5*(8), 1-11.

Ward, C., Bocher, S., & Furnham, A. (2001). *The psychology of culture shock*. Philadelphia: Taylor & Francis.

Waterman, A. S. (Ed.). (1997). *Service-learning: Applications from the research*. Mahwah, N.J.: Erlbaum Associates.

Weaver, H. N. (1999). Indigenous people and the social work profession: Defining culturally competent services. *Social Work, 44*(3), 217-225.

Wofford, H. (1966). The future of the Peace Corps. *The Annals of the American Academy of Political and Social Science, 365*(1), 129-146.

World Bank. (1992). *Participatory development and the World Bank*. Washington DC: World Bank.

Yuan, Y. C. (2008). *Multiple imputation for missing data: Concepts and new development (version 9.0)*. Rockville, MD: SAS Institute Inc.

Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology, 9*(2), 1-27.

Zajonc, R. B. (1998). Emotions. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 591-632). Boston, MA: McGraw-Hill.

Zhao, C.-M. (2002). *Intercultural competence: A quantitative study of the significance of intercultural competence and the influence of college experiences on students' intercultural competence development*. Virginia Polytechnic Institute and State University, Blacksburg.