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STUDY ABROAD AS A TOOL FOR ENHANCING CULTURAL COMPETENCIES:
A FRAMEWORK FOR FUTURE EMPLOYEE OUTCOMES

by

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ABSTRACT

STUDY ABROAD AS A TOOL FOR ENHANCING CULTURAL COMPETENCIES: A FRAMEWORK FOR FUTURE EMPLOYEE OUTCOMES

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Previous research has found that study abroad programs (SAPs) offer a valuable educational experience during the postsecondary years, with benefits including language learning, global awareness, and changing internal attitudes towards other cultures. Additionally, some research has found that SAP participation positively impacts students' future career outcomes (Dwyer, 2004). However, no research to date has connected the gains achieved by studying abroad with work outcomes in a quantitative research design. In the current study, a sample of study abroad students demonstrated significant increases in cross-cultural adaptability and cultural intelligence (known as cultural competencies) as a result of participating in a SAP compared to a control group. Further, a sample of SAP alumni displayed significantly greater cultural competencies than a sample of American full-time workers that did not study abroad. SAP alumni cultural competencies were also positively correlated with four self-report measures of job performance. Finally, an exploratory assessment revealed a potential effect of regional SAP destination on cultural competency development. Implications for future research and a framework of understanding the long-term impact of study abroad are discussed.

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Introduction

For those who pursue higher education, study abroad programs (SAPs, or international education) can provide students with a unique learning experience beyond what is offered by their home institution. International education is often heralded as an important feature of the postsecondary years, and many students consider these programs to be both a positive and memorable experience. In recent decades, educators and psychologists have observed measureable improvements in language proficiency, internal attitudes, and global awareness of students who have studied abroad (Dwyer, 2004; Carlson, Burn, Useem, & Yachimowicz, 1990; Lumkes, Hallett, & Vallade, 2012). Additionally, studies have found evidence for the positive long-term impact of international education on career outcomes, an indication that the value of SAPs extends beyond the college years (Study Abroad Outcomes, 2012). However few studies, if any, have examined the direct connections between measureable acquired competencies gained during SAPs and their future impact on job performance, an area of research important for employers seeking to hire culturally competent, adaptive individuals.

In the following sections, the current state of study abroad programs will be discussed, followed by an introduction to the concept of cultural competencies. In this study, these competencies are measured through cross-cultural adaptability and cultural intelligence assessments, used in varying contexts of research. Next, the measurement of self-reported job performance will be introduced, leading to the initial findings that connect these two variables and allow for further exploration, which constitutes the formation of the current study. This will be presented as a framework for understanding the quantitative impact of SAPs across time as compared to a control group of domestic

students. The contributions of the current study will include the (1) identification of the connections between gains found in international education and the skills necessary for an increasingly global workforce, (2) exploratory investigations into the differences between SAP features and subsequent student development, and (3) extension of the SAP literature by illustrating the impact that these programs have on future outcomes through a framework of measurable impact.

Study Abroad Programs in the United States

Study abroad programs have become increasingly popular at American universities since their beginnings in the 1920's, with over 14% of degree-seeking undergraduates participating in either short-term, semester, or year-long international education programs as of 2014 (Institute of International Education, 2014). SAPs now offer a greater diversity of learning experiences than in decades past, by including internships, volunteer work, and other experiential learning opportunities in addition to classroom work at the host university (Dwyer, 2004). According to the Institute of International Education's annual report, over half of all American international students choose Western European destinations in which to study. The choice to travel to Westernized countries, while often made for a number of reasons such as accessibility and cost, may impact the depth of cultural immersion that is gained by the student, a question that will be investigated in the current study. Importantly, short-term SAPs (defined generally as summer terms, or programs of less than eight weeks' duration) have significantly grown in popularity and are now the most frequently chosen type of program (60% in 2012-2013; Institute of International Education, 2014). Participation in international higher education is frequently praised as an important and beneficial

experience that fosters student development beyond the standard expectations of American undergraduate education (NAFSA, 2003; AAC&U, 2007). SAPs are said to positively impact students in a variety of ways, with varying amounts of research to support these claims (summarized in Study Abroad Outcomes, 2012; Dwyer, 2004). Notably, important links between SAPs and students' future successes further illustrate the value of these programs (Study Abroad Outcomes, 2012; Norris & Gillespie, 2009; Paige et al., 2009).

Importance of SAPs on Career Development

Although not abundant in number, longitudinal research has highlighted the influential nature of SAPs on students' personal development, career choices, and professional development. The Association for the Study of Higher Education (ASHE) summarized these findings in a report on SAP outcomes, highlighting relevant responses from study abroad alumni through survey methodology. From these reports, the authors concluded that SAPs add a sense of greater cultural awareness and interest that remains personally relevant to SAP alumni, varying from skills used in the workplace to direct influence on multicultural-oriented career paths (Norris & Gillespie, 2009; Paige et al., 2009). For example, some SAP alumni reported integrating their international experiences directly when developing work values and choosing to work for multinational companies. Though impactful, authors noted important limitations to this form of research methodology, including the reflective nature of responses, a lack of control group, and a weak theoretical grounding that fails to explain core differences among students who study abroad and those who do not (Study Abroad Outcomes, 2012). As such, overall findings support the general importance of study abroad, but also call for

stricter methodological procedures that more clearly delineate the gains achieved by these students. Another, more abundant avenue of study abroad research focuses on these quantifiable gains, specifically related to the shifting of internal attitudes towards greater cultural relativism, global mindedness, and cultural sensitivity, discussed in the following section (Mapp, 2012; Tarrant, Rubin, & Stoner, 2014). In response to the limitations of earlier work, as well as to expand the knowledge of SAP long-term impact, the current study will measure quantifiable cultural competency (i.e., cross-cultural adaptability and cultural intelligence) and job performance in a sample of SAP alumni.

Cultural Competencies

Known under a variety of names such as cultural intelligence, cultural adaptability, intercultural sensitivity, and global-mindedness, models of cultural competencies encompass the techniques and behaviors with which a person can understand differences between cultures and respond to them in a way that promotes the achievement of work-related or other goals (Ang et al., 2007). Within the sphere of international education, these skills foster both academic and extracurricular success while abroad. Additionally, the employment of cultural competencies is increasingly seen as a necessary tool with which individuals navigate a culturally and ideologically diverse workforce. Individuals vary widely in their abilities to perform effectively in new cultures, and the study of cultural competencies has helped bridge the gap in understanding these individual differences, in addition to suggesting methods of competency improvement (Earley & Ang, 2003). In the current study, two measures of cultural competencies (cultural intelligence and cross-cultural adaptability) will be used to assess individual gains achieved by participation in SAPs. The two measures

examining cultural competencies, the Cross-Cultural Adaptability Inventory (CCAI; Kelley & Meyers, 2001) and Cultural Intelligence Scale (CQS; Van Dyne, Ang, & Koh, 2008), consist of separate but related scales that have been used in student, expatriate, and domestic worker samples. The complementary nature of these scales will provide a well-rounded trait- and behavior-based measurement of cultural competencies for the purpose of this study.

Cross-cultural adaptability. When an individual experiences a new culture for the first time, the potential exists for emotional distress and other behavioral indicators of anxiety (e.g., rigidity, angry outbursts) to adversely impact the individual's ability to perform effectively in the new environment. The ability to adapt to changing cues in the environment (i.e., those not found in the home culture) is believed to facilitate effectiveness, autonomy, and personal growth (Church, 1982).

In the process of creating the CCAI, Kelley and Meyers (2001) identified four main factors influencing the individual's ability to adapt: Emotional resilience, flexibility and openness, perceptual acuity, and personal autonomy (Vangent, 2008). Upon entering a new environment in which high performance is expected, such as in a new workplace or school, the stress of adjustment can impact the ability to perform effectively (Church, 1982). Commonly known as culture shock, the impact of anxiety manifests in various ways and is a result of disorientation from an individual's normative social and interpersonal cues from the environment (Oberg, 1960). According to Kelley and Meyers, an individual with higher levels of emotional resilience would be capable of "bouncing back" from anxiety and affective instability that occur as a result of natural responses to new cultures (Hammer, Gudykunst, & Wiseman, 1979). With regards to

flexibility/openness, the utilization of adaptive role behavior and open attitudes has been found to suggest greater success in intercultural situations (Hannigan, 1990; Ruben & Kealey, 1979). Because problem solving in intercultural settings may involve different strategies or delegations of work, for example, it would be advantageous to be both flexible and open to new ideas. Regarding perceptual acuity, Kelley and Meyers describe cultural empathy as a key factor in intercultural effectiveness because of the high levels of cognition (and perceptiveness) required to both understand and take the perspective of others' ideas (Vangent, 2008). Finally, the work of Hawes and Kealey (1981) provides evidence for the centrality of the sense of self and thus, a need for personal autonomy in the ultimate success of the individual in new cultures. Success is affected by the individual's degree of culture shock as well as other factors, such as respect for other cultures and the degree of willingness to explore conflicts within one's self concept, often as a result of potential stressors or moral conflicts within the new environment (Hannigan, 1990; Ruben & Kealey, 1979). Together, these four areas of intercultural effectiveness compose a multifaceted profile of a culturally adaptive individual. As discussed, researchers have demonstrated evidence for the importance of cross-cultural adaptability through increased scores on CCAI before and after cross-cultural experiences, connections with theories of impression management and emotional intelligence (reflecting the motivation to be seen as a likeable and competent individual by other cultures), and predictive validity with future cultural adjustment in expatriate American workers (Vangent, 2008).

Cultural intelligence (CQ). Earley and Ang (2003) developed a culturally based extension of the psychological study of intelligences to form the CQS. This theory takes

an alternate perspective from the CCAI and other, more stable trait-based measurements by extending contemporary theories of intelligence to include cognitive, behavioral, and motivational cultural components. Cultural intelligence, as opposed to adaptability, does not include dispositional traits and instead refers to the individual's deliberate, ongoing efforts to integrate new cultural cues with existing knowledge to behave and perform effectively (Ang et al., 2007).

Like the model of cross-cultural adaptability, the model of cultural intelligence has been divided into four subcategories, consisting of the three main components and an additional metacognitive element. Cognitive CQ refers to declarative knowledge about other cultures, including customs, norms, and economic systems. Metacognitive CQ, conversely, includes higher-level cognition related to the incorporation of new information into cognitive cultural models. A person with high metacognitive CQ pays attention to new experiences, questions previously held assumptions, and attends to cultural differences during social interactions, for example. Motivational CQ reflects an individual's propensity to engage with other cultures and direct energy towards learning, likely based on intrinsic interest. Finally, behavioral CQ refers to the observable indicators of cultural intelligence, including verbal and non-verbal appropriate behaviors (e.g., words, tone of voice, gestures; Ang et al., 2007). Though the theory of cultural intelligence is fairly new, its roots in established theories of specific intelligences (e.g., Sternberg, 1986) provides support for its use in cultural settings. The CQS has been cited as a consistent predictor of expatriate performance in cross-cultural settings (Ang & Van Dyne, 2008).

Study Abroad Programs Increasing Cultural Competencies

Various research studies published in the past decade have provided support for the idea that SAPs result in an increase in general cross-cultural adaptability and other measures of global awareness. In a frequently cited study by Black and Duhon (2006), the CCAI was used to evidence an increase in cross-cultural development. The study, which examined pre- and post-trip changes in cross-cultural adaptability, found statistically significant increases on all four subscales of the CCAI in a sample of 26 American students participating in a short-term British Studies business program. Despite the study's small sample size and its inherent methodological limitations, it has been cited frequently as important evidence for a positive outcome stemming from international education as well as a model for replicating these results in future research. The current study seeks to specifically expand upon these findings with a larger sample of SAP students and fewer methodological limitations.

Another important consideration made by researchers studying the impact of SAPs rests within the inherent value of short-term programs, and whether the personal gains in cultural awareness among these students are comparable to those of students who spend a semester or year abroad. In a sample of 87 undergraduate students completing one- to three-week courses in social work and political science in Thailand, Ireland, Vietnam, Costa Rica, and Ecuador, Mapp (2012) found significant increases on all four subscales of the CCAI using a pre-post design. The author assessed for potential covariates impacting these findings, including trip length, English as a primary language, and students' previous international experience, and found no evidence of covariates. Additionally, Dwyer's (2004) survey of SAP alumni found comparable results of some

personal growth and intercultural development items (e.g., “increased self confidence” and “helped me better understand my own cultural values and biases,” pp. 158, 160) between short-term and year-long SAPs, which the author attributed to the value of a well-planned, intensive short-term excursion.

The pre-post design has been used in the SAP literature to demonstrate personal and behavioral growth among students over a variety of domains, including intercultural sensitivity and adaptation (Wright & Clarke, 2010) and cultural intelligence. Harrison and Brower (2010) published the only known study to date that utilizes the CQS in a sample of study abroad students. As the authors note, the CQS was created primarily as a tool for businesses in an industrial/organizational context, but its potential for connecting its predictive power across educational and organizational domains follows a course of logic directly pertaining to the goals of the current study. The authors found a significant positive correlation between all subscales of the CQS and greater adjustment among a sample of 95 students participating in various SAPs at a private, southeastern American university. Additionally, they found that measuring psychological hardiness accounts for this inherent ability to adjust to new environments. While this study provides a promising first glance into the use of the CQS as a construct in SAP literature, it fails to assess whether participation in SAPs increases cultural intelligence. It is hoped that the current study will address these gaps in understanding, culminating in a cross-disciplinary assessment of educational and organizational study abroad outcomes.

The first hypothesis of the current study (H1) predicts significant post-trip increases in students’ cross-cultural adaptability and cultural intelligence as compared to a control group, measured by the Cross-Cultural Adaptability Inventory (CCAI) and

Cultural Intelligence Scale (CQS), respectively. To assess whether the effects of H1 extend beyond the college years and into the workforce, the second hypothesis predicts that alumni of SAPs will score higher in cultural competencies than a sample of American workers who did not study abroad (H2).

Self-Report Job Performance Assessment

In addition to seeking significant increases in cultural competencies, this current study will also determine the impact of these gains on students' future job performance. This will be assessed through a query of SAP alumni, who may or may not be currently employed (see Methods section for further details) and presumably have experienced gains in cultural competencies through their SAP experiences. The study of job performance is a multifaceted, individualized measurement of what it means to perform one's job well. Appraisals of job performance are necessary for a number of applications within the workplace with performance linked to the success of both the individual as well as the organization (Muchinsky, 2006). In the industrial/organizational psychology literature, job performance is assessed through a number of commonly used variables that have consistently shown significant relationships with performance itself. In the current study, task performance, contextual performance, organizational citizenship behaviors, and job satisfaction will be used to study SAP alumni job performance. Due to the multidimensional nature of professional work profiles, performance on any given job will vary, thus these variables reflect the interpersonal competencies necessary for job performance across industries that involve the need to work with others.

First, a general indicator of task performance (or in-role behavior) is a broad-based, informative assessment of how the individual completes the specific duties

required of the job. Campbell (1990) lists these as task-specific behaviors that are necessary to complete the job itself. Beyond the scope of direct task performance is the assessment of other factors not specifically related to the job, but which facilitate better overall outcomes for the organization. These are commonly known as contextual performance variables that the individual performs to increase performance on an organizational level (e.g., a greater competitive advantage; Borman & Motowildo, 1997). A closely related, but separate construct used to measure performance is the measurement of organizational citizenship behaviors, or OCBs. These occur when an individual within an organization performs prosocial behaviors that benefit the organization without formal acknowledgement or compensation (Organ, 1988; Williams & Anderson, 1991). Finally, a fourth construct within the current study of job performance is job satisfaction, which indicates affective and cognitive components of the individual's feelings about the job itself. Job satisfaction is related to factors that influence performance, such as OCBs and absenteeism (Organ & Ryan, 1995; Wegge, Schmidt, Parkes, & van Dick, 2007). Together, these multidimensional behavioral, affective and cognitive variables provide a measurement of job performance that can be collected through self-report methodology and applied to a variety of jobs across most industries.

Pilot Study. These self-report measures of performance were also used in a sample of full-time American employees, collected previously by the author in the first phase of this research, which identified positive relationships between cultural competencies with job performance. Using a series of Pearson r correlations, the author found moderate to strong positive correlations between the CCAI and self-reported job performance ($.21 < r < .52$), and small to moderate correlations between the CQS and job

performance ($.19 < r < .33$). Additional regression analyses revealed a possible moderation effect of previous international experience strengthening the competency-performance relationship. Previous to this initial phase of research, the competency-performance relationship was not established outside of expatriate samples, as the original purpose of the competency measures was to predict performance among American workers in international settings. Importantly, this research indeed found the connection and served to validate the use of cultural competency measures in non-expatriate worker populations as a predictive tool of success in the workplace. Thus, it was a necessary first step in establishing the framework connecting cultural competencies to success in the domestic American workforce through the context of international education. This study was conducted with online survey methodology using the CCAI, CQS, and four job performance measures, and will be discussed in detail in the Methods section.

Based on previous research connecting cultural competencies to job performance, and the results of the pilot study validating this assessment in the domestic workplace, the third hypothesis of the current study predicts that SAP alumni whose cultural competencies remain high will also score highly on four measures of job performance (i.e., a positive correlation between the two variables; H3).

The Current Study

Previous literature on SAP outcomes has consistently shown a significant change in students' cross-cultural adaptability, in addition to other measures of personal and intercultural growth. These studies, however, often rely on small sample sizes usually contained within a single program or university. Additionally, no research to date has

attempted to assess pre-post changes in cultural intelligence, a relatively new and important variable that has consistent connections with organizational success, as a result of studying abroad. While it is believed that these previous results are indicative of the positive impact of SAPs on students' global mindedness, more research is needed to address some of these methodological issues. The following study will be, in part, a quasi-experimental design, utilizing a control group of traditional domestic students for comparison analyses of cultural competency development.

The contributions of the current study are composed of two major goals. First, the current study seeks to provide support for SAPs as a tool for increasing cultural competencies. This will be achieved by establishing a pre-post increase in CQ and cross-cultural adaptability in a diverse sample of SAP students as compared to a control group. The SAP group is composed of both short-term and semester study abroad students who traveled to various countries across the globe. Second, the current study will extend the context of these cultural competency measurements beyond expatriates and current SAP students by establishing predictive power in a setting based on both educational and workforce research. This will be achieved through an analysis of SAP alumni to demonstrate 1) greater cultural competencies than in a non-SAP sample of the workforce and 2) positive connections between alumni competencies and self-reported job performance. These goals will create a framework for understanding the immediate and long-term impacts of international education through a quantitative, predictive research design. By connecting SAPs with enhanced cultural competencies, and enhanced competencies with greater job performance, a strong and quantifiable relationship is

indicated that will greatly emphasize the importance of study abroad in developing students' potential as competent and successful future workers.

Additional research questions. Some research suggests that students who participate in short-term study abroad programs do not experience the same degree of positive change and development as students who study abroad for a semester or academic year (Dwyer, 2004). This is a particularly important avenue to study further, given that short-term programs have drastically increased in popularity and are now the most frequent type of program (Institute of International Education, 2014). The first exploratory research question in the current study predicts that students completing semester-long programs will score significantly higher on the post-trip evaluation of cultural competencies than students who complete short-term SAPs (1). Additionally, the following exploratory research questions will be investigated in order to gain a greater understanding of students who engage in these programs: (2) Does the level of cultural immersion in a given program (e.g., hands-on internship versus strict classroom work) affect the development of cultural competencies? (3) Is cultural competency level affected by students' academic path; i.e., do differences in cultural competency exist among various majors or areas of study? (4) Is cultural competency development affected by study abroad destination? The following study will shed light on these research questions regarding the development of cultural competencies.

Method

Participants

Current SAP students. The sample of SAP students for the current study consists of 75 students who participated in faculty-led short-term or semester study

abroad programs. Only six students in this sample completed semester-long programs during the Fall 2014 semester; the rest completed short-term programs during the Summer 2014 and January 2015 terms. These students attend a Mid-Atlantic public university. Students completed pre- and post-trip online surveys to assess changes in cross-cultural adaptability and cultural intelligence, in addition to questions regarding demographic information and any previous intercultural experience. The sample consists of undergraduate (72) and graduate (3) students, is 77.2% female and 72.2% White, with ages ranging from 18-40, and an average age of 21.95 years old. Figure 1 illustrates the destinations (by country) and number of students in the SAP sample who traveled to each location.

SAP alumni. In addition to the sample of current SAP students intended for assessing pre-post differences in cultural competency, the current study also utilizes a sample of students or alumni who have already completed SAPs, some of which attended the Mid-Atlantic university and others who attended various universities across the United States. These students may still be matriculated (e.g., completed study abroad junior year but has not yet completed a degree), graduated from the university, or otherwise. The alumni sample is 77.08% female, 1.04% transgender, and 69.79% White, with ages ranging from 20 to 56 years old (mean 25.30 years). They completed study abroad programs between the years of 1984-2014, and twenty alumni completed more than one program (participants were also included in this count if they extended their stays beyond the length of an academic year). The majority of students studied abroad for a semester (55.17%), with 28.45% completing short-term programs and 16.38% studying for an academic year. Figure 2 illustrates the SAP destinations and frequency of

each country in the alumni sample; alumni who listed more than one destination were counted according to the number of countries listed. Semester-At-Sea data was not included in Figure 2. These individuals completed a survey inquiring about cultural competencies and job performance. SAP alumni were asked about their current employment; if they responded as “currently unemployed,” their cultural competency data was still collected, although they were not used in primary analyses. One hundred thirty nine alumni completed the survey in full, but only 84 were currently employed and thus completed job performance measures. The results of this survey will be used to test Hypotheses 2 and 3.

Control group. To test Hypothesis 1 and demonstrate that SAP students’ gains in cultural competencies are greater than any potential maturation effects across time, a sample of traditional students was measured on cross-cultural adaptability and cultural intelligence twice across the passage of time equivalent to a short-term SAP (roughly 2 weeks). This sample of 28 students was enrolled in an introductory psychology class at the same Mid-Atlantic university, and the students were offered class credit for completing both surveys. Each student was asked if they had previously completed a study abroad program before completing the survey. If any students responded affirmatively, they were directed to the SAP Alumni survey for further data collection. This sample is predominantly female (81.71%) and White (73.08%), with an average age of 18.65 years (range 17-23 years).

Full-time workers. A previously collected sample of workers from the Pilot Study was used to assess any differences in cultural competency between the current study’s sample of SAP alumni with a sample of American full-time employees. This

sample consists of 127 American adults, employed full-time in a variety of industries. These participants were collected through Amazon Mechanical Turk, a website containing a platform for the exchange of online tasks and monetary compensation for work completed. In exchange for compensation, these participants completed the CCAI and CQS in relation to any cross-cultural experiences they had encountered (at work or otherwise). This sample was mostly female (53.43%), White/Caucasian (75.59%), and between the ages of 25-34 years (31.01%). Any participants who indicated that they had completed a SAP were omitted from the sample.

Procedure

Surveys. Participants in the current study completed one or a combination of the following surveys to assess cultural competencies and job performance (where applicable):

1. Survey 1: Worker Survey from Pilot Study, including the CCAI, CQS, and job performance measures (data collected January 2014)
2. Survey 2: Study Abroad Pre-Test, including the CCAI, CQS, and program/demographic information
3. Survey 3: Study Abroad Post-Test, identical to Survey 2
4. Survey 4: Alumni Survey, including the CCAI, CQS, and job performance measures

Data collection. Current SAP students were contacted through the university's study abroad department and asked to complete a pre-departure survey (Survey 2), which contained 89 items, including the CCAI, CQS, and demographic and cultural experience questions. The survey was created through the SurveyMonkey website, and recruitment

for the study was incorporated with students' pre-departure activities scheduled by the university study abroad office. Students scheduled for upcoming departures were sent an email containing a link to Survey 2, which requested their participation in order to learn about the impact of study abroad experiences. After following the link provided, participants completed an informed consent. In order to track students' pre- and post-trip responses, they were asked to provide a university-affiliated email address. Post-trip, participants were contacted again via email after returning from SAPs to complete Survey 3. During recruitment communications, participants were told that returning both Pre-Test and Post-Test surveys would make them eligible to win a prize incentive (3 gift cards awarded after data collection to randomly selected raffle winners).

Similarly, recruitment of SAP alumni was conducted through the university's study abroad office (approximately 30 participants) as well as through alumni of a competitive federal study abroad scholarship program, for completion of Survey 4 (Alumni Survey). To encourage participation, university alumni were told that their participation in the survey would result in entry into a prize raffle, for which they can win a gift card. One gift card was distributed to the raffle winner. Scholarship alumni participants were recruited through LinkedIn networking on a scholarship alumni page that totals over 3,700 online members; over 200 alumni took the survey and 139 alumni completed it in full.

In the sample of workers collected in January 2014 for the Pilot Study, the procedure was similar. Data was collected via SurveyMonkey survey administration (Worker Survey) through Mechanical Turk, a web-based platform for recruitment and work completion (Amazon.com, Inc., 2015). These participants completed the CCAI and

CQS, answered demographic and work-related questions, completed four measures of job performance, and were compensated for their time.

Cultural Competency Measures

Measures used to indicate cross-cultural ability consisted of the Cultural Intelligence Scale (CQS; Van Dyne, Ang, & Koh, 2008) and Cross-Cultural Adaptability Inventory (CCAI; Kelley & Meyers, 2001). These questionnaires investigate cognitive, affective, and behavioral indicators of cross-cultural competency.

Cultural Intelligence Scale. The CQS is a 20-item measure comprised of four subscales that indicate cognitive, behavioral, metacognitive, and motivational aspects of cultural intelligence. This measure was created from research surrounding the theory of multiple intelligences; see Ang et al. (2007) for a complete review and conceptual framework. Cognitive CQ refers to semantic knowledge of the customs, language, and other features of a foreign culture (“I know the cultural values and religious beliefs of other cultures”). Behavioral CQ reflects an individual’s observable verbal and non-verbal behaviors that facilitate cross-cultural interaction (“I vary the rate of my speaking when a cross-cultural situation requires it”). Metacognitive CQ represents the propensity to both monitor and modify existing cognitive schemas about other cultures (“I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me”). Finally, Motivational CQ measures individuals’ intrinsic desire to explore other cultures (“I enjoy living in cultures that are unfamiliar to me”). The CQS has been used previously with acceptable psychometric properties; across two studies containing three data sets in total, the average Cronbach’s alpha for the total CQ scale was .81 (Ang et al., 2007; Duff, Tahbaz & Chan, 2012;). In the SAP student sample, Cronbach’s alpha for

the CQ scale was above .80 for the pretest and above .90 for the posttest. In the SAP alumni sample, it was .86.

Cross-Cultural Adaptability Inventory. The 50-item CCAI measures individuals' ability to adapt to living in a foreign culture, as indicated by four subscales: Emotional resilience, flexibility/openness, perceptual acuity, and personal autonomy. The Emotional Resilience subscale measures affective stability during potentially stressful cross-cultural experiences ("I have ways to deal with the stresses of new situations"). Flexibility/Openness indicates tolerance for environmental instability and the holding of nonjudgmental attitudes ("I like a number of people who don't share my particular interests"). Perceptual Acuity reflects the cognitive elements of perceiving and understanding differences between cultures while remaining culturally empathic ("I pay attention to how people's cultural differences affect their perceptions of me"). Finally, the Personal Autonomy subscale measures the ability to maintain a self-concept that is not threatened by, nor dissolved in a foreign culture ("I feel free to maintain my personal values, even among those who do not share them," Vangent, 2008). In the SAP student sample, Cronbach's alphas were .91 and .93 for pretest and posttest, respectively; in the alumni sample, it was .91.

Performance Measure

In this study, job performance was measured in the sample of SAP alumni only, in an effort to connect hypothesized gains in cultural competency, which these alumni should demonstrate, with greater job performance. To assess this, a multi-scale self-report measure was created using a composite of both inner feelings regarding work as well as interpersonal behaviors contributing to individual and organizational success.

This 50-item measure is comprised of contextual performance (Morgeson, Reider, & Campion, 2005), general task performance/in-role behavior, organizational citizenship behaviors (Smith, Organ, & Near, 1983), and job satisfaction (Weiss, Dawis, & England, 1967).

Contextual performance is conceptually defined as the opposite of task performance, encompassing all behaviors that are not specifically delineated in the job profile but are necessary for a smoothly running organization (“I cooperate with others in the team”; Morgeson, Reider, & Campion, 2005). Conversely, task performance, or in-role behavior, inquires about the degree to which a person completes the tasks necessary for the job itself (“How would you describe the overall quality of your work this week?”). Organizational citizenship behaviors (OCBs) are closely related to contextual performance. These items reflect an individual’s propensity to perform behaviors that benefit the organization, but not the individual performing them; OCBs reflect a generally altruistic concern for the improvement of the organization (“I orient new people even though it is not required”; Smith, Organ, & Near, 1983). Finally, job satisfaction, measured in this study by the Minnesota Satisfaction Questionnaire (MSQ), reflects the individual’s inner feelings regarding various aspects of the workplace, such as perceived fairness and degree of fulfillment in the work being performed (“On my present job, this is how I feel about... the chance to do something that makes use of my abilities”; Weiss, Dawis, & England, 1967). All measures are answered with five-point Likert scales of appropriate sentiment (agreement, satisfaction, etc.). In the previously collected sample of full-time workers, each measure was found to have good reliability, with Cronbach’s alphas of .89, .92, .85, and .87 for task performance, satisfaction, OCBs, and contextual

performance, respectively. In the sample of SAP alumni, Cronbach's alphas ranged from .58 to .92. The OCB scale had the lowest value at .58, followed by the contextual performance scale (.74).

Demographic Questions

Throughout all surveys, participants were asked a series of demographic questions including ethnicity, gender (using "Transgender/Other" as a third option), and age. Additionally, participants in all samples were asked to provide their occupation or title, using "Student" as an option that could be combined with others if participants were both working and attending a university.

Exploratory Analysis

To assess for differences between SAP students, as well as any potential effect on cultural competency development, the following questions were included on all surveys: What kind of work does your course require (Classroom work, Hands-on/Experiential Learning, Both)? What is your academic college within the university? What is the duration of your study abroad program? Where is your Study Abroad Program being held? (The answers to this question will be coded as categorical variables according to global region.) Have you ever spent time outside of the country previous to your study abroad trip? The answers to these variables (e.g., cultural immersion/orientation, previous international experience, length of stay) were used as potential moderators or other distinguishing descriptive variables during data analysis.

Results

All results were analyzed with SPSS software and bootstrapped with 1000 samples. Multivariate analyses were used in place of multiple univariate analyses by computing change scores between pretest and posttest survey results.

Study Abroad Increases Cultural Competencies

A multivariate analysis of covariance (MANCOVA) was performed to assess the impact of SAPs on cultural competency development compared to a control group. The analysis utilized CCAI and CQS subscale change scores (pretest value subtracted from the posttest value) as the outcome variables, and the group (SAP or Control) as the fixed factor. Pretest scores on each outcome variable were entered as covariates in the analysis to control for pretest differences between the groups. Results indicated a significant group effect on cultural competency, $F(8,85) = 3.82, p < .01$; Wilk's $\lambda = .74$, partial $\eta^2 = .27$. SAP students scored higher than the control group on all subscales of the CQS as well as the Emotional Resilience, Flexibility/Openness and Perceptual Acuity subscales of the CCAI. The control group's cultural competency scores decreased over the two-week period between measurements. See Tables 1 and 2 for a description of pre-test scores, post-test scores, and a summary table of F values and effect size, respectively.

An additional set of independent samples t-tests were performed to investigate any pre-test differences in cultural competency between the SAP and control group. Indeed, the SAP group scored significantly higher on the CCAI and CQS pre-tests across all subscales except Cognitive CQ, with t-values ranging from 2.42 to 5.22 ($p < .05$). As mentioned previously, these differences did not significantly affect the group effect found in the MANCOVA because they were entered as covariates.

SAP Alumni Are More Culturally Competent than Non-SAP Workers

To assess Hypothesis 2, a multivariate analysis of variance (MANOVA) was used to assess differences in cultural competencies among SAP alumni and the sample of American workers that did not study abroad. These results are displayed in Table 3. There was a significant group difference in cultural competency, $F(8,219) = 9.06, p < .001$; Wilk's $\lambda = .75$, partial $\eta^2 = .25$. SAP alumni scored higher on the Flexibility/Openness and Perceptual Acuity subscales of the CCAI, in addition to all subscales of the CQS.

SAP Alumni Cultural Competencies Are Linked To Performance

In accordance with Hypothesis 3 and previous findings linking cultural competencies to job performance in the worker sample, this competency-performance relationship was also found in the alumni sample. Using a series of Pearson r bivariate correlations seen in Tables 4 and 5, moderate to strong positive correlations between the cultural competency scales and most measures of performance were found, with exception of the Minnesota Satisfaction Questionnaire.

Additional Analyses

The first exploratory research question predicted greater cultural competency scores in students who completed semester-long SAPs than students participating in short-term programs, in accordance with previous literature. Only six students participating in semester programs completed both pre-trip and post-trip surveys; thus, the analysis could not be completed due to insufficient power.

Exploratory questions 2 and 3, concerning possible effects of cultural immersion or academic path on students' cultural competency development, did not reveal any

significant results. However, in an analysis of competency change according to SAP destination (Question 4), some significant differences may reveal a possible effect of destination differences. Using a MANOVA with Study Abroad Destination (coded as Europe, Central America, or South America, based on the SAP participant sample) as the grouping variable and change scores for each subscale of the CCAI and CQS as outcome measures, the analysis revealed a significant effect of destination on changes in Cognitive CQ and Behavioral CQ, $F(3,70) = 4.02, p < .05$, partial $\eta^2 = .15$, observed power = .82 and $F(3,70) = 3.13, p < .05$, partial $\eta^2 = .12$, observed power = .71, respectively. Bonferroni multiple comparisons post-hoc analyses revealed that students studying in South America experience a significantly greater change in Cognitive CQ than students who study in Central America and Europe, $p < .05$ and $.01$, respectively. Additionally, students who study in Central America experience a significantly greater change in Behavioral CQ than students studying in Europe, $p < .05$.

Discussion

Summary of Findings

The current study investigated quantitative connections between increased cultural competencies resulting from participation in study abroad programs, and greater self-reported job performance. The measurable relationships between current SAP students and SAP alumni illustrate the lasting impact of international education on competencies such as flexibility, autonomy, cultural knowledge, and cultural perception. Further, the use of a student control group and a sample of the American working population has identified an observed difference between individuals who study abroad, and those who do not.

The results of this study supported Hypothesis 1, which predicted significant cultural competency increases after studying abroad in a sample of undergraduate and graduate students, as compared to a control group measured before and after a 2-week period. Indeed, all but one subscale of the CCAI displayed significant increases in the SAP group, while the control group made no significant differences over time, and actually decreased in cultural competency after the 2-week period in some measurements. This finding supports previous research showing a pre-post effect; furthermore, it evinces this effect in a sample of predominantly short-term study abroad students, a group believed by some to lack important gains made by students who go abroad for longer periods of time (Dwyer, 2004). Hypothesis 2 was also supported, as the SAP alumni scored higher than the worker sample on six of eight cultural competency subscales. The sample of alumni reflected a diverse group of former SAP students who traveled to 29 different countries across the past three decades, most of whom spent a semester or longer abroad. This finding demonstrates support for the statement that international education is a distinguishing experience that positively impacts future opportunities for success (Norris & Gillespie, 2009).

Hypothesis 3 was also supported. The positive correlation between competencies and performance among SAP alumni, implies that gains made as a result of international education are linked to performance in the workforce. This is the first known study to date that has found this quantitative competency-performance relationship in a sample of SAP alumni, and the results of Hypothesis 3 warrant further research into possible predictive relationships extending from the classroom to the workplace. Finally, support for the first three exploratory research questions was not found; for the first research

question investigating differences among program duration, this may have been due to a small sample size in the semester-long SAP group (six students). Further analysis and replication of these findings are necessary to argue that the observed effects of study abroad are free from confounds, as some of the goals of the current study (i.e. greater diversity of student samples) fell short of expected results.

Additional exploratory analyses revealed a possible effect of study abroad destination on cultural competency development. Students who studied in Central and South America experienced greater changes in Cognitive and Behavioral CQ than students who studied in European countries, a finding particularly interesting given the popularity of European destinations for study abroad. As previously mentioned, the CQS measures cultural competencies based on the understanding of multiple intelligences. The students in this study who experienced greater Cognitive CQ change would likely report learning facts and rules about Central and South American cultures, such as cultural values, religious beliefs, economic systems, and language customs. Likewise, these students experiencing greater Behavioral CQ change would have learned and improved upon their understanding of the nuances of interpersonal behavior and language that their host country's culture dictates. It may thus be inferred that because of greater differences in language and other cultural factors, Central and South American destinations may be sources of greater cultural competency development than European countries, which are more Westernized, White, and English-speaking.

Contributions of the Current Study

The current study contributes to the cultural competency and international education literature by linking quantitative impact among several groups of individuals to

establish an initial framework of understanding the long-term impact of study abroad programs. The limitations inherent in a two-year graduate project with limited resources made a longitudinal study of impact difficult; therefore, linking samples of current study abroad students with alumni (who both recently studied abroad and also participated years or decades ago) created a theoretical approach to demonstrating support for this important research goal. First, it was necessary to provide evidence for the competency-performance relationship in a domestic workplace context, demonstrated in the Pilot Study using the worker sample. This relationship had already been established in the context of international labor and expatriates, as did the pre-post effect of study abroad on cultural competencies (Sizoo, Plank, Iskat, & Serrie, 2005; Ang et al., 2007; Black & Duhon, 2006; Mapp, 2012). The current study served to connect not just students and alumni, but also the fields of education and labor in a predictive design.

The findings of the current study provide two major implications for the field of international education research. First, the CCAI and CQS are useful tools in predicting important gains made by study abroad students as a result of their international education programs. Second, these gains also serve to predict future success in the workforce; this is one of few (if any) studies to provide a quantitative foundation to support the claim that international education is superior to traditional higher education in preparing students for an increasingly globalized workforce. However, this initial foundation must be discussed in the context of its limitations and avenues for future research to further establish this predictive relationship.

Limitations

One significant limitation related to the resources and time frame in this study is the self-reported nature of both the cultural competency and job performance measurements. The use of these measurements warrants the inherent risk of a social desirability bias, in which participants rate their abilities and performance as higher than they may actually be if measured from an outside perspective. With regards to job performance in particular, measurement tends to be over-inflated to varying degrees, a common problem in this field of research not believed to invalidate or adversely affect findings (Wegge et al., 2007; Muchinsky, 2006). To address possible social desirability bias, future research could assess job performance through a sizeable sample of manager-subordinate dyads in a variety of industries, in which the managers rate subordinates on the four job performance scales.

Another possible limitation in the current study concerns the small sample size and lack of program-duration diversity in the sample of current SAP students. The current study sought to collect data from at least 100 current SAP students participating in a variety of program durations (short-term, semester, academic year). The sample of students who completed both surveys only reached 75 in number, only six of these students participated in semester programs, and none studied for an academic year. This may, in part, be due to the greater popularity of short-term programs (Institute of International Education, 2014), and also because of greater institutional support of short-term programs. Additionally, there was a small control group that consisted of only 28 students; future research should attempt to better match the control and SAP samples in both size and other demographic factors.

The third and most important limitation to discuss is the finding that SAP students were already more culturally competent than the control group before departing for their study abroad programs. This does not negate the significant cultural competency improvements they made as a result of going abroad, but speaks to the fundamental issue of identifying what sets these students apart in the first place. This has been found in previous research (Mapp, 2012; Williams, 2005; also summarized in Study Abroad Outcomes, 2012), and continues to provide future avenues of inquiry for those studying international education. This finding calls into question the real value of the programs themselves, and reflects a chasm among students who are either motivated or not motivated to pursue international education, one that has yet to be understood fully by psychologists and educators (Carlson, 1990; Sanchez, Fornerino, & Zhang, 2006). The question remains as to what kind of improvements can be made by students who may not score as highly on cultural competency measures before going overseas, but are nonetheless encouraged to go abroad as a result of increased opportunity or funding.

Finally, throughout the collection of data from SAP alumni, several remarks and criticisms were received via e-mail that illustrate potential psychometric limitations of the CCAI and CQS through, ironically, a cultural bias in the wording of measurement items, in addition to language in the job performance measure that was restrictive of experiences and/or confusing. For example, one participant wrote an email that included the following message:

Your survey felt like it was assuming that all study abroad students are likely white Americans. I say this because as an American Indian person, with dual

citizenship in this country, certain questions were put in such a way that I felt that my own personal experiences as someone from another culture in this country were disregarded... Please check the tone of your questioning to be more inclusive of diverse student experiences.

Regarding the job performance measure, another participant remarked that “Some statements were also worded in such a way that it was really hard to disagree with them,” and that “I felt like the questions about me on the job, in relation to my ‘team members’ were really hard to answer because I’m a teacher, so I don’t really get to work as a ‘team’ too much.” These informative comments illustrate the need for updated measurements that reflect the diversity of student experiences and backgrounds, as well as better performance assessments that are inclusive of the varied work environments with which individuals may be engaged.

Future Directions

There currently exist greater opportunities for students to study abroad than in any previous decade, and support for international education is growing with national initiatives such as Generation Study Abroad, funded by the Institute of International Education, which seeks to double SAP participation rates by the year 2020 (Institute of International Education, 2015). Thus, it is more important than ever to continue research on the impact of international education. Based on the results of the current study, researchers should continue to focus on the question of what makes SAP students more culturally competent than their peers, even before departing for a study abroad program. This is a critical question that must be addressed in order to understand how SAPs may impact some students differently than others, as well as how to prepare less culturally

competent students for international education opportunities. Additionally, future research should continue to address the methodological limitations in this and previous studies, such as small, homogenous sample sizes, and more inclusive and objective measures of cultural competency. Finally, more work should attempt to connect the field of international education research with what is needed and valued in the labor force, to further establish quantitative connections between international education and success in the workplace.

In conclusion, the current study utilized a quantitative, predictive design by connecting previous literature on cultural competencies and job performance, to attempt to understand the long-term impact of study abroad. This impact is understood in terms of long-lasting cultural competency development as well as increased performance in the workplace. By providing evidence that SAP students display increased cultural competencies as a result of studying abroad, and that these increased competencies are long lasting and positively correlated with job performance, an initial foundation is set that supports long-held claims of the true value of international education opportunities.

APPENDICES

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TABLE 1.

Means and Standard Deviations of All Cultural Competency Subscales

Group	CCAI-ER		CCAI-FO		CCAI-PAc		CCAI-PA	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
SAP								
Pre	82.80	8.10	67.93	7.30	48.07	5.28	33.96	3.13
Post	86.12	8.43	69.69	7.53	49.81	5.35	34.04	3.54
Control								
Pre	73.85	9.08	63.14	7.89	45.11	5.70	32.60	4.72
Post	71.79	11.59	61.10	7.84	43.46	7.38	31.60	5.81
Group	Mot-CQ		Cog-CQ		MC-CQ		Beh-CQ	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
SAP								
Pre	5.53	.75	4.06	1.14	5.18	.88	4.87	1.02
Post	5.95	.86	4.73	1.18	5.64	1.00	5.46	1.12
Control								
Pre	4.74	.95	3.64	1.20	4.70	.89	4.66	.89
Post	4.59	.97	3.51	1.17	4.49	1.29	4.36	1.36

Note: SAP = Study Abroad Program, n = 76. Control: n = 28

TABLE 2.

Cultural Competency Change Score Differences in SAP Students Versus Control Group

		Univariate									
		<u>Multivariate</u>		<u>CCAI-ER</u>		<u>CCAI-FO</u>		<u>CCAI-PAc</u>		<u>CCAI-PA</u>	
Source		F^a	η^2	F^b	η^2	F^b	η^2	F^b	η^2	F^b	η^2
Group		3.82**	.27	21.20***	.19	13.22***	.13	13.65***	.13	1.71	.02
				<u>Mot-CQ</u>		<u>Cog-CQ</u>		<u>MC-CQ</u>		<u>Beh-CQ</u>	
Source				F^b	η^2	F^b	η^2	F^b	η^2	F^b	η^2
Group				20.62***	.18	13.41***	.13	12.94**	.12	11.68**	.11

Note. Group = SAP or Control. All CCAI and CQS subscales indicate change scores.

^aMultivariate $df = 8,85$. ^bUnivariate $df = 1, 92$.

** = $p < .01$, *** = $p < .001$

TABLE 3.

Differences in Cultural Competencies Among Alumni and Workers

		Univariate									
		<u>Multivariate</u>		<u>CCAI-ER</u>		<u>CCAI-FO</u>		<u>CCAI-PAc</u>		<u>CCAI-PA</u>	
Source		F^a	η^2	F^b	η^2	F^b	η^2	F^b	η^2	F^b	η^2
Group		9.06***	.25	3.78	.02	16.43***	.07	17.80***	.07	.15	.00
				<u>Mot-CQ</u>		<u>Cog-CQ</u>		<u>MC-CQ</u>		<u>Beh-CQ</u>	
Source				F^b	η^2	F^b	η^2	F^b	η^2	F^b	η^2
Group				38.04***	.14	42.42***	.16	40.46***	.15	32.41***	.13

Note. Group = SAP Alumni or Workers.

^aMultivariate df = 8, 219. ^bUnivariate df = 1, 226.

*** = $p < .001$

TABLE 4.

Study Abroad Alumni Means, Standard Deviations, and Bivariate Correlations of CCAI and Performance Measures

CCAI Subscale	<i>M</i>	<i>SD</i>	Measure			
			Task Perf.	Contextual Perf.	OCB	MSQ
Emotional Resilience	85.50	9.31	.24**	.31**	.22**	.08
Flexibility/Openness	71.90	8.19	.19*	.32**	.16*	.11
Perceptual Acuity	50.13	4.65	.13	.29**	.24**	.12
Personal Autonomy	33.82	3.40	.16*	.10	.13	.13
CCAI Total	241.36	21.15	.22**	.34**	.23**	.13

Note. n = 84, Perf. = Performance, correlations measured using Pearson's r

* $p < .05$, ** $p < .01$

TABLE 5.

Study Abroad Alumni Means, Standard Deviations, and Bivariate Correlations of CQS and Performance Measures

CQS Subscale	<i>M</i>	<i>SD</i>	Measure			
			Task Perf.	Contextual Perf.	OCB	MSQ
Cognitive	4.83	1.34	-.03	.27*	.01	-.04
Behavioral	5.39	1.06	.08	.33**	.24*	.21
Motivational	5.92	.83	.18	.49**	.31**	.09
Metacognitive	5.77	.87	-.08	.35**	.08	.10

Note. $n = 84$, Perf. = Performance, correlations measured using Pearson's r

* $p < .05$, ** $p < .01$

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FIGURE 1. Study Abroad Destinations and Frequencies in Current SAP Student Sample



FIGURE 2. Study Abroad Destinations and Frequencies of SAP Alumni Sample

APPENDIX C: INSTITUTIONAL REVIEW BOARD APPROVAL

**APPROVAL NUMBER: 14-A036**

To: Elisabeth Cronin
Attn David Earnest, 8000 York RD
Towson MD 21252

From: Institutional Review Board for the Protection of Human
Subjects Patricia Alt, Member

Date: Thursday, October 31, 2013

RE: Application for Approval of Research Involving the Use of
Human Participants

Office of University
Research Services

Towson University
8000 York Road
Towson, MD 21252-0001
t. 410 704-2236
f. 410 704-4494

Thank you for submitting an Application for Approval of Research Involving the Use of Human Participants to the Institutional Review Board for the Protection of Human Participants (IRB) at Towson University. The IRB hereby approves your proposal titled:

The relationship between cross-cultural adaptability, cultural intelligence, and workplace performance

If you should encounter any new risks, reactions, or injuries while conducting your research, please notify the IRB. Should your research extend beyond one year in duration, or should there be substantive changes in your research protocol, you will need to submit another application for approval at that time.

We wish you every success in your research project. If you have any questions, please call me at (410) 704-2236.

CC: David Earnest (Psych)
File

References

- Amazon.com, Inc. (2015). *Amazon Mechanical Turk* [webpage]. Retrieved from <https://www.mturk.com/mturk/welcome>
- Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management and Organization Review*, 3(3), 335-371. <http://dx.doi.org/10.1111/j.1740-8784.2007.00082.x>
- Association of American Colleges and Universities (AAC&U). (2007). College learning for the new global century. A report from the national leadership council for liberal education & america's promise. Retrieved from http://www.aacu.org/leap/documents/GlobalCentury_final.pdf
- Black, H. T., & Duhon, D. L. (2006). Assessing the impact of business study abroad programs on cultural awareness and personal development. *Journal of Education for Business*, 81(3), 140-144. DOI:10.3200/JOEB.81.3.140-144
- Borman, W., & Motowildo, S. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance*, 10(2), 99-109. http://dx.doi.org/10.1207/s15327043hup1002_3
- Campbell, J. P. (1990). Modeling the performance prediction problem in industrial and organizational psychology. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (pp. 687-732). Palo Alto, CA: Consulting Psychologists Press, Inc.
- Carlson, J.S., Burn, B.B., Useem, J., & Yachimowicz, D. (1990). *Study abroad: The*

experiences of American undergraduates. New York, NY: Greenwood Press.

doi:10.2307/2074752

Church, A. T. (1982). Sojourner adjustment. *Psychological bulletin*, 91(3), 540-572. doi:

10.1037/0033-2909.91.3.540

Duff, A.J., Tahbaz, A. & Chan, C. (2012). The interactive effect of cultural intelligence and openness on task performance. *Research and Practice in Human Resource Management*, 20(1), 1-12.

Dwyer, M. M. (2004). More is better: The impact of study abroad program duration.

Frontiers: The Interdisciplinary Journal of Study Abroad, 10, 151-163.

Earley, P. C., & Ang, S. A. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford University Press. doi:10.5860/choice.41-4760

Hammer, M. R., Gudykunst, W. B., & Wiseman, R. L. (1979). Dimensions of

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

Intercultural Relations, 2(4), 382-393. [http://dx.doi.org/10.1016/0147-](http://dx.doi.org/10.1016/0147-1767(78)90036-6)

1767(78)90036-6

Hannigan, T. P. (1990). Traits, attitudes, and skills that are related to intercultural

effectiveness and their implications for cross-cultural training: A review of the

literature. *International Journal of Intercultural Relations*, 14(1), 89-111.

[http://dx.doi.org/10.1016/0147-1767\(90\)90049-3](http://dx.doi.org/10.1016/0147-1767(90)90049-3)

Harrison, J. K., & Brower, H. H. (2011). The impact of cultural intelligence and psychological hardiness on homesickness among study abroad students.

Frontiers: The Interdisciplinary Journal of Study Abroad, 21, 41-62.

Hawes, F., & Kealey, D. J. (1981). An empirical study of Canadian technical assistance:

Adaptation and effectiveness on overseas assignment. *International Journal of Intercultural Relations*, 5(3), 239-258. [http://dx.doi.org/10.1016/0147-1767\(81\)90028-6](http://dx.doi.org/10.1016/0147-1767(81)90028-6)

Institute of International Education (2014). *Fast facts: U.S. students studying abroad*.

Open Doors Report on International Educational Exchange. Retrieved from <http://www.iie.org/opendoors>

Institute of International Education. 2015. *Generation study abroad* [Webpage].

Retrieved from <http://www.iie.org/Programs/Generation-Study-Abroad>

Kelley, C. and Meyers, J. (2001), CCAI: Cross-cultural Adaptability Inventory, National Computer Systems, Minneapolis, MN.

Lumkes, J.R., Hallett, S., & Vallade, L. (2012). Hearing versus experiencing: The impact of a short-term study abroad experience in China on students' perceptions regarding globalization and cultural awareness. *International Journal Of Intercultural Relations*, 36(1), 151-159. doi:10.1016/j.ijintrel.2011.12.004

Mapp, S. C. (2012). Effect of short-term study abroad programs on students' cultural adaptability. *Journal of Social Work Education*, 48(4), 727-737.
DOI:10.5175/JSWE.2012.201100103

Morgeson, F. P., Reider, M. H., & Campion, M. A. (2005). Selecting individuals in team settings: The importance of social skills, personality characteristics, and teamwork knowledge. *Personnel Psychology*, 58(3), 583-611.
<http://dx.doi.org/10.1111/j.1744-6570.2005.655.x>

Muchinsky, P.M. (2006). *Psychology applied to work, eighth edition*. Belmont, CA: Thomson Wadsworth.

- NAFSA: Association of International Educators. (2003). *Securing america's future: Global education for a global age*. Report of the Strategic Task Force on Education Abroad. Retrieved from http://www.nafsa.org/Resource_Library_Assets/Public_Policy/Securing_America_s_Future/
- Norris, E. M., & Gillespie, J. (2009). How study abroad shapes global careers: Evidence from the united states. *Journal of Studies in International Education*, 13(3), 382-397. doi: 10.1177/1028315308319740
- Oberg, K. (1960). Cultural shock: Adjustment to new cultural environments. *Practical anthropology*, 7(4), 177-182.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.
- Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48, 775-802. <http://dx.doi.org/10.1111/j.1744-6570.1995.tb01781.x>
- Paige, R. M., Fry, G. W., Stallman, E. M., Josić, J., & Jon, J. E. (2009). Study abroad for global engagement: The long-term impact of mobility experiences. *Intercultural Education*, 20, S29-S44. DOI:10.1080/14675980903370847
- Ruben, B. D., & Kealey, D. J. (1979). Behavioral assessment of communication competency and the prediction of cross-cultural adaptation. *International Journal of Intercultural Relations*, 3(1), 15-47. [http://dx.doi.org/10.1016/0147-1767\(79\)90045-2](http://dx.doi.org/10.1016/0147-1767(79)90045-2)

- Sánchez, C. M., Fornerino, M., & Zhang, M. (2006). Motivations and the intent to study abroad among US, French, and Chinese students. *Journal of Teaching in International Business, 18*(1), 27-52. doi:10.1300/j066v18n01_03
- Sizoo, S., Plank, R., Iskat, W., & Serrie, H. (2005). The effect of intercultural sensitivity on employee performance in cross-cultural service encounters. *Journal of Services Marketing, 19*(4), 245-255.
<http://dx.doi.org/10.1108/08876040510605271>
- Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of applied psychology, 68*(4), 653.
<http://dx.doi.org/10.1037//0021-9010.68.4.653>
- Sternberg, R. J. 1986. A framework for understanding conceptions of intelligence. In R. J. Sternberg & D.K. Detterman (Eds.), *What is intelligence? Contemporary viewpoints on its nature and definition*. Norwood, NJ: Ablex, 3-15.
JDOI: 10.1111/j.1740-8784.2007.00082.x
- Study Abroad Outcomes. (2012). *ASHE Higher Education Report, 38*(4), 67-94.
- Tarrant, M.A., Rubin, D.L., & Stoner, L. (2014). The added value of study abroad: Fostering a global citizenry. *Journal of Studies in International Education, 18*(2), 141-161. DOI: 10.1177/1028315313497589
- Van Dyne, L., Ang, S., & Koh, C. (2008). Development and Validation of the CQS. *Handbook of cultural intelligence. Theory, measurement and applications*, Sharpe, New York, 16-38.
- Vangent, Inc. (2008). CCAI Technical Information. Electronic brochure.
- Wegge, J., Schmidt, K., Parkes, C., & van Dick, K. (2007). 'Taking a sickie': Job

satisfaction and job involvement as interactive predictors of absenteeism in a public organization. *Journal of Occupational and Organizational Psychology*, 80, 77-89. DOI: 10.1348/096317906X99371

Weiss, D. J., Dawis, R. V., & England, G. W. (1967). Manual for the Minnesota Satisfaction Questionnaire. *Minnesota studies in vocational rehabilitation*.

Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17, 601–617. <http://dx.doi.org/10.1177/014920639101700305>.

Williams, T. R. (2005). Exploring the impact of study abroad on students' intercultural communication skills: Adaptability and sensitivity. *Journal of Studies in International Education*, 9(4), 356-371. <http://dx.doi.org/10.1177/1028315305277681>

Wright, N. D., & Clarke, I. (2010). Preparing marketing students for a global and multicultural work environment: The value of a semester-long study abroad program. *Marketing Education Review*, 20(2), 149-162. doi: 10.2753/MER1052-8008200206

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ACADEMIC EXPERIENCE:

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- *Master's Thesis: Study Abroad As a Tool for Enhancing Cultural Competencies: A Framework For Future Employee Outcomes*, Fall 2013-Spring 2015
- *Undergraduate Research Writing Tutor*, Department of Psychology – Fall 2013
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- *Research Assistant*, Department of Interdisciplinary Studies – Fall 2012-Spring 2013
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RESEARCH EXPERIENCE:

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- Enrolled participants through informed consent process
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PUBLICATIONS:

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