# THE STUDY OF THE IMPACT OF CULTURAL INTELLIGENCE (CQ) TRAINING ON CQ MEASURES OF EXPATRIATE EMPLOYEES IN INTERNATIONAL BUSINESS

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Mykka Fisher

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Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

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Liberty University, School of Business

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Dr. Roxanne Stevens

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Dr. Christopher Bellamy

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Dr. Edward M. Moore, DBA Program Director

**Abstract**

The loss associated with failed expatriate assignments remains significant for international businesses. Leadership within global organizations that can manage cost and improve the chances for success offers an advantage to the firm. Individuals who demonstrate high measures of the four aspects of cultural intelligence (CQ) increase their ability to adapt to new cultural situations and adjust successfully within the new cultural environment. Training regarding culture proves effective for increased cultural awareness and cultural assimilation. This quantitative experimental study was conducted to determine if specialized training related to an individual's personal cultural intelligence could significantly affect the four aspects of CQ. The study indicated that none of the four measures of CQ were significantly affected by the training. Additional research using larger and more diverse sample populations would further add to this topic. Employing various personalized training methods rather than relying on virtual training would expand this research and provide additional avenues for study.

*Keywords*: cultural intelligence, expatriate adjustment, cross-culture training

# THE STUDY OF THE IMPACT OF CULTURAL INTELLIGENCE (CQ) TRAINING ON CQ MEASURES OF EXPATRIATE EMPLOYEES IN INTERNATIONAL BUSINESS

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Final Dissertation Review

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Dr. Jeanmarie Pinto

## Dedication

This work is dedicated to my children, Max and Cat Fisher, who inspire me to be a better person each and every day. By watching this process unfold, I hope that they have discovered a love of lifetime learning and recognized through hard work and persistence that anything is possible. While this degree may open doors for me, the most important work of my life is being their mom, and I hope they know the joy that they bring to me.

I also dedicate this dissertation to my husband, as without him this would not have been possible. He encouraged me to begin this process and traveled this journey with me by challenging my thinking, aiding my brainstorming, squashing my doubts, and cheering my efforts throughout my program. We chose to walk through life together and for his support and love, I am eternally grateful.

This work remains a by-product of my love of learning and dedication to self-improvement which was instilled by my parents. Their initial dedication to teaching me that with hard work anything was possible has sustained my efforts to continue my education. While they were many miles away during this process, I would also like to dedicate this work to them.

Finally, I dedicate this project to God. He led me to the Liberty DBA program and placed an incredible, supportive group around me to encourage me along this journey. When efforts seemed to be failing, He had a plan and walked along with me. This process has renewed my faith in Him and proven the Bible verse, “I can do all things through Christ who strengthens me” (New King James Version, Philippians 4:13).

**Acknowledgements**

The task of completing the doctoral process can only be completed with the help of key individuals along the way. First, I would like to thank my chair, Dr. Roxanne Stevens, who I had the great pleasure of meeting in person in Greece. Without her consistent positive influence and encouragement along with supportive prayer and guidance, I would have been lost during the dissertation process. For believing not only in my study, but also in my ability to complete my project, I will forever be grateful.

My doctoral cohort became a great source of strength and inspiration for me. During the coursework, the encouragement and help that I received remained an essential component that allowed me to reach the dissertation phase. Once I began writing, the support, love, and care shown by each member of our team provided me the motivation to press forward. For all the moments of self-doubt and struggle when I gained strength from the team and all the milestones that were reached and celebrated collectively, I could not have asked for a better group with which to cross this finish line. I am blessed to know you all and most certainly proud to be completing this journey with you. Even though our educational time together ends here, each of you will remain in my heart forever, and I am grateful for our friendship.

I would also like to thank those that I met along this journey who were significant in helping me to complete my dissertation study by gaining access to the study participants. Jamie Sebastian worked tirelessly to help me every step of the way. Marci and Blake Hartsock and Dr. Doug Lange provided the introduction to the key individuals who helped me complete my work. For each of them, I am extremely grateful.

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## Section 1: Foundation of the Study

International business leadership recognizes the importance of global business initiatives, and with the growing influence of technology, even small business owners find themselves within the expanding world marketplace (Josien, 2012). Selecting the correct candidate to expatriate includes assessing not only the skills of the employee, but also identifying personality traits and adaptation capacity of the worker that align with strategic business initiatives (Yussuf, 2018). To maintain control, trust, and consistency in the new location, expatriate workers embark on costly international assignments only to return home frustrated when assignments fail and expectations go unrealized (Josien, 2012; Kassar, Rouhana, & Lythreatis, 2015).

Cultural intelligence (CQ) refers to an individual's ability to live and work with others from another culture (Earley & Ang, 2003). Improvements in CQ positively impacts cultural adjustment and can improve the experience of the expatriate (Ang, Van Dyne, & Koh, 2006). International managers who recognize the skill of cultural awareness in an employee and who can utilize training to improve CQ levels could impact the success of the worker and increase the likelihood of adjustment and expatriate success within global business operations.

This section includes an outline of the research study to determine the effects of CQ training on expatriate employees. A discussion of the background of the problem, the purpose of the study, and the nature of the problem are included to provide the reader with a basic overview of the current business situation. The methodology, study design, research question, and hypothesis follow. Additionally, the theoretical framework, gaps in business practice, and theological importance provide the reader with a foundational understanding of the basis of this study. The section ends with a review of the literature to provide a thorough outline of the

research that exists regarding the topics of expatriation, cultural intelligence, and cross-cultural training.

**Background of the Problem**

The foundational research relating to culture includes the work of Geert Hofstede and the study of 66 nations resulting in the 5-factor framework of cultural values (Mazanec, Crotts, Gursoy, & Lu, 2015). Using these five dimensions of culture, Hofstede argued that the beliefs of a nation remain homogeneous and therefore these naturally occurring groups of cultural values distinguish one group from another (Vasile & Nicolescu, 2016). Because of these differences in culture and the increased influence of the global marketplace, individuals who can work and interact effectively within changing cultural situations offer a competitive advantage for obtaining organizational goals and objectives (Aldhaheri, 2017).

Because of the increased importance of cultural awareness for business professionals, Earley and Ang created a 4-factor model of CQ based on current theories of intelligence (Ang et al., 2006). According to Earley and Ang, CQ refers to the individual's ability to act and manage successfully in various cultural situations (Ang et al., 2007). Studies show that increased CQ measures result in improved cultural judgment, task performance, general adjustment, and cross-cultural adjustment in intercultural and international environments (Ang et al., 2006). CQ remains malleable and represents a competence that increases over time with cultural exposure and training (Jyoti & Kour, 2015).

Cross-cultural training refers to any training intervention developed to improve the knowledge and skills of workers engaging in an international work assignment (Caligiuri, Phillips, Lazarova, Tarique, & Burgi, 2001). According to Caligiuri et al. (2001), cross-cultural training that creates accurate expectations for the worker positively affects the adjustment of the

expatriate once in the new nation. Studies suggest that assessing the worker and tailoring training to the individual promotes increased learning (Feitosa, Kreutzer, Kramperth, Kramer, & Salas, 2014). To date, the effect of cross-cultural training based on the framework of cultural intelligence and individualized CQ assessment remains unclear and presents a gap in the literature that this study addressed.

**Problem Statement**

The problem to be addressed includes the significant cost to international organizations when expatriates fail and the lack of a proven training method that enhances expatriate cultural awareness. The high costs consist of rent and housing expenses, insurance, air travel, work and living permits, recruitment and training the worker and the family members (Ditchburn & Brook, 2015). Considering each of these factors, the total cost associated with moving one worker amounts to up to 3 times the base salary of a local hire and can meet the expenses of hiring an upper-level management position (Ditchburn & Brook, 2015; Kassar et al., 2015). Itemizing such costs in real dollar terms, estimates for moving one worker and the family ranges from $250,000 to $1,000,000 (Kassar et al., 2015). To mitigate the costs associated with a failed expatriate assignment, organizational leadership endeavors to select and train the most-suited employees for international assignments (Feitosa et al., 2014)

CQ, based on the general intelligence framework, represents an individual's ability to act and manage effectively in a culturally diverse environment (Şahin, Gürbüz, Köksal, & Ercan, 2013). When testing CQ components, researchers discovered that elements of CQ predict cultural adaptation, work performance, and work adjustment in expatriate workers (Crowne, 2013). While the need for cross-cultural training to prepare workers for overseas assignment seems apparent, research involving the effectiveness of such training programs remains

inconclusive (Wood & St. Peters, 2014). Studies suggest that assessing the worker and tailoring training to the individual promotes increased learning (Feitosa et al., 2014). This current research relates to the specific problem of finding a measurably effective training intervention that affects CQ measurements for individuals engaging in a short-term missionary assignment sent from the United States to various locations throughout the globe.

**Purpose Statement**

The purpose of this quantitative study was to examine if individualized CQ training based on the CQ assessment conducted can affect the CQ measurements of the individual. Wood and St. Peters (2014) suggested that levels of CQ drive, knowledge, and strategy all positively improve when an individual participates in a short-term immersion experience such as a cultural study tour. Conducting individualized cultural training could increase CQ awareness and cause a more significant improvement in CQ measures. Producing a study that provides evidence of the ability to increase CQ scores based on training allows global firms to tailor training efforts to improve expatriate adjustment and improve worker performance.

**Nature of Study**

Research includes the systematic gathering, analyzing, and interpreting of data to gain an increased understanding of an occurrence, fact, or condition (Apuke, 2017). Typically, researchers identify a phenomenon and seek to answer a question regarding that phenomenon (Apuke, 2017). Research takes the form of a qualitative, quantitative, or mixed method study (Stake, 2010). Qualitative research techniques are focused on individuals' perceptions and understanding of a phenomenon and comprehend the issue within its natural environment (Creswell & Poth, 2018; Stake, 2010). Quantitative research is focused on the collection of numerical data and statistics to precisely determine how things function (Apuke, 2017; Stake,

2010). Mixed method studies combine both qualitative and quantitative studies to create research with increased levels of knowledge and validity (Schoonenboom & Johnson, 2017).

**Discussion of method.** Van Dyne, Ang, and Koh (2008) successfully created and validated a Cultural Intelligence Scale (CQS) based on the CQ dimensions created by Early and Ang. Utilizing the CQS for this present analysis allowed the researcher to collect numerical values related to the four CQ constructs for each individual in the study which were then statistically analyzed to gain a precise understanding of the impact CQ training will have on CQ measures. Therefore, the research method for this study was a quantitative approach to the data collection process, utilizing the existing online CQ assessment and CQS.

Often qualitative research includes an explanatory approach in which the researcher provides an interpretative lens in an effort to understand a phenomenon (Creswell & Poth, 2018; Stake, 2010). While this present research included a phenomenon for the purpose of examination, the researcher used a structured and validated method for data collection rather than relying on data collection in non-numerical forms such as observations, interviews, or field notes to understand or interpret the research (Apuke, 2017). Furthermore, this study was conducted to determine the quantifiable effects that a training intervention might have in effecting CQ measures.

**Discussion of design.** Quantitative studies utilize data to analyze situations and objectively answer interrogative questions: who, what, when, where, why, how much, or how many (Apuke, 2017). Quantitative research includes descriptive, correlational, and experimental design (Apuke, 2017; Ivey, 2016; Watson, 2015). Quantitative research encompassing a descriptive design is conducted to describe or classify the phenomenon referenced in the study (Ivey, 2016). The correlational design serves to explore if a relationship exists between two or

more variables within a population and, if so, to what degree of association exists (Apuke, 2017). Experimental design measures the effects of a treatment intervention within a sample population (Apuke, 2017).

The study design for this research included an experimental design process. The researcher measured the effects of a training intervention on members of a sample population preparing for a cultural immersion experience. Using this type of experimental design, the control group did not receive the intervention, while the treatment group participated in the training intervention (Watson, 2015). The focus of this study included determining what effects, if any, a training intervention may have on CQ measures. The main focus of the research did not include providing a description of CQ training; therefore, a descriptive study approach remained inappropriate. Furthermore, this research was not an attempt to predict outcomes when variables become altered, so a correlational study represented an unsuitable choice.

**Summary of the nature of the study.** This study relied on a quantitative methodology to precisely measure the effects of a training intervention on CQ components. Through the use of the online CQ assessment tool, the researcher collected data to quantify the impact of training on expatriate cultural awareness. Using an experimental design process allowed the inclusion of a control group that did not attend training and an experimental group that received training to accurately assess the impact of the training intervention.

## Research Question

The primary research question guiding this study to determine if a training program provides any measurable changes in CQ measures for expatriates preparing for an international work assignment was as follows:

RQ. What effect, if any, will a training intervention based on an individual cultural intelligence (CQ) assessment have on CQ measurements?

**Hypotheses**

Cross-cultural competencies include the behaviors, attitudes, and beliefs that contribute to the success of an individual when functioning in a diverse cultural situation (Konanahalli et al., 2014). CQ explains how cultural competencies impact the expatriate's ability to cope, adjust, and perform more effectively within an international environment than others (Şahin et al., 2013). The use of the CQS and CQ assessment produces individualized measures of the four factors of CQ (Van Dyne, Ang, & Koh, 2008). Because the CQ factors represent dynamic rather than static traits, these competencies remain more readily affected by training interventions (Konanahalli et al., 2014).

CQ Drive refers to the motivational aspect of CQ and includes the amount of interest the individual exhibits for other cultures or people (Livermore & Van Dyne, 2015). Research indicates that cultural immersion experiences enhance motivational CQ measures and improve CQ Drive (Wood & St. Peters, 2014).

*$H_a1$:* There is a greater statistically significant effect on CQ Drive for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

*$H_01$:* There is no statistically significant effect on CQ Drive for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

CQ Knowledge measures the cognitive aspect of CQ which identifies the individual's understanding of the norms and customs associated with a culture learned through education and

observation (Eken, Özturgut, & Craven, 2014; Livermore & Van Dyne, 2015). Wood and St. Peters (2014) discovered that enhanced measures of cognitive CQ result from cultural immersion experiences.

*$H_a2$:* There a greater statistically significant effect on CQ Knowledge for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

*$H_02$:* There is no statistically significant effect on CQ Knowledge for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

The metacognitive aspect of CQ refers to CQ Strategy and includes observing, planning, and reflecting on cultural experiences before, during, and after the encounter (Eken et al., 2014). This metacognitive component of CQ also improves with cultural immersion experiences (Wood & St. Peters, 2014).

*$H_a3$:* There is a greater statistically significant effect on CQ Strategy for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

*$H_03$:* There is no statistically significant effect on CQ Strategy for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

Behavioral CQ refers to CQ Action and represents the individual's ability to act in a manner, both verbally and nonverbally, that seems appropriate within the new cultural environment (Livermore & Van Dyne, 2015). CQ Action represents the only component of the

four CQ measures that remains unchanged by cultural immersion experiences (Wood & St. Peters, 2014)

*$H_a4$:* There is a statistically significant effect on CQ Action for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

*$H_04$:* There is no statistically significant effect on CQ Action for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

**Theoretical Framework**

The theoretical framework for this study relies on the foundational work of Hofstede and the study of differences in culture and cultural awareness (Vasile & Nicolescu, 2016). Taking Hofstede's research further, Earley and Ang (2003) developed the framework of the CQ model basing this foundation on the intelligence work of Robert Sternberg. Early and Ang focused on CQ in four areas; cognitive, metacognitive, motivational, and behavioral (Aldhaheri, 2017). These constructs provided the theoretical framework for this study.

**Cultural theory.** The theoretical framework of this research was based on the work of Hofstede and his work relating to culture and cultural awareness (Mazanec et al., 2015). Hofstede's seminal work on culture cultural awareness forms the theoretical foundation for various forms of research in the areas of psychology, international business, economics, and management and he remains one of the most quoted social scientists in history (Beugelsdijk & Welzel, 2018). Based on the study, Hofstede developed five key dimensions of culture and determined that these cultural norms within a society manifest in the values and habits that distinguish one people group from another (Vasile & Nicolescu, 2016). These elements of

culture sustain the ongoing research regarding national behaviors and cultural tendencies and provide a relevant foundation that spans decades (Kristjánsdóttir, Guðlaugsson, Guðmundsdóttir, & Aðalsteinsson, 2017).

**Cultural intelligence theory.** CQ theory developed as a response to the globalization of modern business society and increasing focus on diversity in the workplace (Collins, Duyar, & Pearson, 2016). To create a theory of intelligence based on culture, researchers looked to prior development of the multidimensional intelligence framework using both behavioral and cognitive aspects (Thomas, 2016). Basing the framework on previous work regarding various intelligence models, CQ refers to intelligence based on cultural awareness in the same way that intellectual intelligence (IQ) denotes mental aptitude and emotional intelligence (EQ) relates to interpersonal awareness (Van Dyne et al., 2008). Additionally, CQ provides an explanation for why some individuals adapt, perform, and succeed in culturally diverse situations (Şahin et al., 2013). The 4-factor construct used for other intelligence models remained an integral part of the basis for CQ with a focus on cognitive, metacognitive, motivational, and behavioral aspects (Aldhaheri, 2017).

CQ Drive. CQ Drive refers to the motivational aspect of CQ and relates to the amount of energy one will exhibit when learning about and interacting with individuals from other cultures (Collins et al., 2016). High levels of motivational CQ manifest in increased self-esteem and improved confidence when failures and obstacles result in multi-cultural environments (Kurpis & Hunter, 2016). Moreover, those who enjoy cultural interactions and find the motivation to explore new and diverse situations remain persistent in navigating these encounters for improving self-efficacy and reducing excess stress (Konanahalli et al., 2014). When CQ Drive remains lacking, those engaging in culturally diverse situations find themselves deficient in

adaptability and flexibility and prevent their own achievement in such assignments (Livermore & Van Dyne, 2015). Without this essential element of CQ, the worker loses the motivation to persevere and increases the likelihood of project failure (Eken et al., 2014). Contrarily, those expatriates who enjoy high levels of CQ motivation appreciate the challenges associated with multi-cultural interactions and use these setback as opportunities for growth and learning (Wood & St. Peters, 2014).

CQ Knowledge**.** CQ Knowledge makes up the cognitive dimension of CQ (Edwards, 2015). The cognitive element encompasses not only the understanding of culture and cultural differences, but also the ability to process these differences to adjust one's behavior (Edwards, 2015). CQ Knowledge focuses on the content knowledge of culture that individuals improve through the use of study, training, and personal exposure (Moon, 2013). Recognition of similarities and differences regarding cultural aspects remains a part of this dimension (Collins et al., 2016). Increasing awareness in national economic, legal, and governmental systems as well as improving social mindfulness within a new culture all contribute to enhancing CQ Knowledge (Collins et al., 2016).

CQ Strategy. The metacognitive aspect of CQ allows the individual to assess, plan, and adjust when in culturally diverse experiences (Konanahalli et al., 2014). CQ Strategy relates to the ability to apply cultural awareness directly when interacting in various multicultural situations (Konanahalli et al., 2014). The people with high levels of CQ Strategy observe and redefine behavior during culturally diverse interactions to apply an understanding of culture in a more purposeful manner (Edwards, 2015). Enhanced CQ Strategy allows an individual to consciously think of cultural differences, observe the diverse nuances of the situation, and solve

complex business scenarios based on these deeper interpretations (Livermore & Van Dyne, 2015).

CQ Action. The behavioral aspect of CQ that relates to both verbal and nonverbal communication refers to CQ Action (Huff, 2013). Those who possess high levels of behavioral CQ adjust habits to reflect different cultural situations and remain flexible during diverse interactions (Livermore & Van Dyne, 2015). In a nonverbal format, high levels of CQ Action manifest in the individual's ability to interpret nonverbal cues that can reflect genuineness and competence (Gonçalves et al., 2016). Verbally, those with enhanced CQ Action, communicate effectively and bring a calming force to multi-cultural interactions (Gonçalves et al., 2016).

**Discussion of relationship between theory and variables.** Hofstede's theory of culture and cultural awareness provided the foundation upon which Earley and Ang (2003) based the theory of CQ. Once the 4-factor construct of CQ emerged, researchers developed a method for measuring each aspect known as the online CQ assessment (Van Dyne et al., 2008). Using the online CQ assessment, this researcher tested the effects of a training intervention (independent variable) on the CQ levels of individuals embarking on a cultural immersion experience (independent variable). The change between the first assessment (independent variable) and second assessment (dependent variable) were analyzed to determine what effects the training intervention had on the four components of CQ (see Appendix A).

**Summary of theoretical framework.** The theoretical framework providing the foundation for this study includes the work of Hofstede on culture and cultural awareness along with the work of Earley and Ang relating to CQ. The online CQ assessment which measures cultural awareness in the 4-factor areas of CQ allows for a baseline understanding of the measures of CQ for each individual in the study. By introducing a training intervention as the

independent variable in the experimental study, this researcher was able to discover if the CQ assessment results, the dependent variables, taken after the training intervention and a cultural immersion experience improved, and to what degree.

**Definition of Terms**

*Cross-cultural training* is an intervention intended to improve the knowledge and skills of an individual preparing for an international assignment to allow the person to function more effectively in the new nation and culture (Caligiuri et al., 2001)

*Cultural adjustment* refers to the process of changing behaviors and norms to improve outcomes and exert control in new cross-cultural environments (Sulaiman, Omar, Yussuf, & Othman, 2014).

*Cultural immersion experience* includes the consistent and ongoing contact with a culture that exposes the differences of traditions, values, and beliefs of a new location from the individual's home culture (Choi, VanVoorhis, & Ellenwood, 2015; Michailova & Ott, 2018).

*Cultural intelligence* refers to the ability of an individual to function effectively within various cultural situations (Wood & St. Peters, 2014).

*Expatriate* is an employed professional who temporarily relocates from the home country to an overseas location for a predetermined amount of time, in a particular job role, and with a renegotiated plan for compensation and benefits (Cesário, Chambel, & Guillén, 2014).

**Assumptions, Limitations, Delimitations**

Assumptions, limitations, and delimitations comprise any research study. Assumptions include the beliefs of the researcher that form the basis for guiding the research approach, research methods, and guiding questions (Haegele & Hodge, 2015). Limitations and

delimitations threaten the validity of the study and must be disclosed by the researcher (Brutus & Duniewicz, 2012). The following section addresses each of these issues.

**Assumptions.** Assumptions include the beliefs of the researcher that provide a path for developing the research approach (Haegele & Hodge, 2015). The first assumption relates to the respondents and their willingness to remain honest during participation in the study. When using a self-reporting assessment, respondents can provide responses that they feel the researcher expects. Furthermore, due to the timing of pre- and post-testing, the respondents may adjust answers to reflect an increase in cultural awareness from one time to another. Offering the assessment as an online, anonymous tool improves the likelihood of truthful responses. Additionally, increasing the sample population reduces the effect of untruthful responses within the participant group. Another assumption relates to the reliability and validity of the CQS assessment tool. As the tool was academically tested in various studies, reduction and control for this assumption remain apparent in the literature reviewed for this study (Matsumoto & Hwang, 2013; Van Dyne et al., 2008).

**Limitations.** The majority of the sample population included American citizens. This limited the study data to relevance within certain geographic locations. Because the sample population included missionary workers, the majority of those within the study represented college-age students and retired individuals. The working population remains underrepresented within this research.

**Delimitations.** This study was conducted to examine the effects of a training intervention on CQ measures within a sample population of individuals engaging in a cultural immersion experience. Because the missionary population includes a large sample population of individuals moving overseas at one particular time, actual expatriate employees remain lacking in the study.

Moreover, the time associated with many expatriate assignments includes a 6-month or 1-year duration. This length of time did not allow the researcher the opportunity to gather the necessary data for determining the changes associated with training and cultural immersion in expatriate workers. Using the sample population of missionary workers allowed for shorter cultural experiences that occurred within the time frame of this study.

Training for the workers prior to the cultural immersion experience includes online programs rather than classroom or other methods. Choosing online training allowed the researcher to ensure that all training remained uniform for those who receive the predeparture teaching. While experimental learning offers the best opportunity for cultural knowledge transfer (Lenartowicz, Johnson, & Konopaske, 2014), due to the time constraints of this study and volume of participants, online training methods remained the best choice for this research.

**Significance of the Study**

Despite multinational organizations expanding their global presence, many international managers sent on expatriate assignments fail in these new cultural situations (Lenartowicz et al., 2014). Failure for expatriates stems from a lack of cultural awareness and ineffective or nonexistent predeparture training for the employee (Lenartowicz et al., 2014). Introducing cultural training based on an individualized CQ assessment offers the potential of increasing the cultural awareness of the individual and improving the likelihood of expatriate success. Furthermore, Christian business leaders maintain the responsibility of providing meaningful work for their employees (Van Duzer, 2010). Employees exhibiting skills for cultural awareness that undergo training to enhance this talent, realize their potential, enhance their job effectiveness, and contribute to the overall good of society.

**Reduction of gaps in business practice.** As research continues to emerge regarding CQ, the importance of CQ related to cultural awareness for the success of the expatriate worker becomes apparent (Ang et al., 2006; Wood & St. Peters, 2014). Additionally, training focused on enhancing an expatriate's awareness of appropriate norms and behaviors within a new nation improves the likelihood of successful cross-cultural adjustment (Caligiuri et al., 2001). Moreover, when the needs of the expat become a factor in the training, improved learning of cultural expectations and cues occur (Feitosa et al., 2014). By utilizing the CQ assessment tool and providing training prior to a cultural immersion experience, this study was intended to fill a gap in the research by determining what effect CQ training can have on changing CQ measures for an individual.

If this study proves that CQ training, along with a cultural immersion experience, further enhances the potential for success of the expatriate and helps with transitioning the worker into the new culture, leadership in international organizations could incorporate this training into expatriate preparation programs. CQ training programs could enhance the transition process of the expatriate and reduce the cost associated with a failed expatriate assignment. Furthermore, such programs signal to the employee that the firm supports the project and remains committed to the employee's success.

**Theological impact.** In the Bible in the book of 1 Corinthians, Paul stated, "Just as a body, though one, has many parts, but all its many parts form one body, so it is with Christ" (12:12, The New International Version). In this way, Paul confirmed that all individuals serve a purpose in the body of Christian believers. As beings created in the image of God, the value of the individual stems from the talents and gifts of each person and the ability to use these skills to full-capacity and to benefit the greater good of society (Keller & Alsdorf, 2012). Paul continued

in this chapter to stress the importance of the cohesion of the body of Christ and the importance of the coordination and concern for the effective working of the body of believers (1 Corinthians 12:24b-25). Christians glorify God through work by utilizing talents to participate in meaningful labor, to work hard, and to contribute to improving society (Van Duzer, 2010).

Christians leading in the current business climate maintain an obligation of wise stewardship of resources and the utilization of workers to enhance natural abilities and benefit the greater community (Keller & Alsdorf, 2012). Managers aiming to fulfill this obligation using an inward focus aid workers in self-assessment of strengths and interests and seek to align the inherent abilities of the workforce with the organizational purpose and objectives (Van Duzer, 2010). Christian leaders who demonstrate this using an outward focus seek to create organizations that enhance the quality of life for all (Van Duzer, 2010).

As businesses increasingly expand into the global marketplace, culture and cultural awareness provide a unique opportunity for workers to utilize God-given talents. Using a tool for assessing cultural skills, such as the CQS, provides managers with a roadmap for locating such talents and a developmental tool for training workers to exploit these distinct characteristics. Equipping workers with an increased awareness and importance of the skills of cultural understanding allows workers to focus talents in international assignments so that these abilities enhance the success of the worker, glorify God, and benefit society as a whole.

Moreover, the use of the CQS to develop and enhance personalized training programs provide enriched support for the worker and aid the employee in developing natural talents of cultural awareness. As cultural training and coaching begin to include more a tailored approach toward the needs of the employee, this personalization supports the development of individual

strengths of cultural awareness. Enhancing natural abilities regarding culture create another avenue for allowing the worker to find and expand meaning in work.

Paul instructed Christ followers to "Do nothing out of selfish ambition or vain conceit. Rather, in humility value others above yourselves, not looking to your own interests but each of you to the interests of the others" (Philippians 2:3-4). When Christian business leaders focus on making a positive impact using organizations around the world, standards of living throughout the globe increase (Eldred, 2005). Foreign direct investment in developing nations contributes to economic growth, increased trade, and enhanced economic freedom (Iamsiraroj, 2016). Utilizing workers that possess the talents of cultural awareness in these developing areas increases the likelihood of success for organizations in these nations and the impact they have on the local economy and people. Because the Christian business leader must focus on creating value to the benefit of society when organizations align natural talents for culture aptitude with the organizational goals, the worker, the firm, and local community all thrive.

**Relationship to cognate.** The focus of this research project includes the management of expatriate assignments that comprise an essential part of strategy related to international business. Working in a multicultural environment or a different country than a home nation, employees increase their value as assets for global firms when they understand various cultures and exhibit the flexibility needed to effectively work in these new environments (Lenartowicz et al., 2014). Managers who successfully aid workers in adjustment to life abroad and provide the training foundation necessary for cross-cultural adjustment support the employee and create a platform for both organizational and personal success of the individual (Cesário et al., 2014).

While the financial benefits of successful expatriate assignments remain challenging to quantify, avoiding the significant monetary and related cost of a failed international assignment

provide enough incentive for international business managers to invest in improving opportunities for success (Ditchburn & Brook, 2015). Research indicates that the expatriate costs an organization as much as 68% more than a local hire, so the international business manager who can increase the likelihood for success of the expatriate increases the return on investment of the employee (Ditchburn & Brook, 2015). Furthermore, unsuccessful assignments affect nonfinancial aspects of the organization such as damaging corporate image and reputation and failing to capitalize on international business opportunities (Gibson, Hardy, Baur, Frink, & Buckley, 2015). These costs pose a significant impact on the business, but remain difficult to quantify for the organization (Gibson et al., 2015).

**Summary of significance of study.** The push for organizations to move into the international marketplace continues. As globalization increases, mangers in international firms focus on mitigating the cost of failed expatriate assignments by selecting and training talented workers for these expanded roles (Feitosa et al., 2014). Organizational leadership who see cultural awareness as an asset and who increase and capitalize on CQ within the workforce contribute to the competitive advantage of the business and improve expatriate success for the worker.

Assessing the gap in the literature regarding the effects of CQ training on CQ measurements, this research expands the knowledge of CQ and its impact on expatriate success. Furthermore, an essential goal of Christian business leaders includes strategically utilizing the skills of workforce and contributing to the outside community (Keller & Alsdorf, 2012). This study will help Christians who work in organizations and seek to align workers with God-given talents to gain an understanding in the skill of CQ and create methods of enhancing the natural abilities of the expatriate for the benefit of the individual, the organization, and society.

## A Review of the Professional and Academic Literature

When reviewing the professional and academic literature regarding this study, the major concepts included expatriates, the stages of expatriation, cultural and intelligence theory, and cross-cultural training. The concept of expatriation includes the underlying reasons for organizational leadership to engage in this employment practice along with the benefits for both the worker and the firm. A discussion of the stages of expatriation and considerations for best practices for global managers follows to further examine the complicated aspects of hiring, training, and supporting these international employees. Research involving culture and intelligence theory provides the foundation for the concepts of CQ and the CQS. Finally, an examination of cross-cultural training including teaching focus, various methods of delivery, and program timing and participation provide substantiating data for the current best practices in intercultural training.

**Expatriate overview.** An expatriate is an individual who resides overseas to complete a work assignment prior to returning to the country of origin (Feitosa et al., 2014). In 2009, the number of global expatriates reached almost 1 million with increases expected to continue in subsequent years (Varma & Russell, 2016). Workers embarking on international assignments need considerably more help and direction than do those employed domestically (Varma & Russell, 2016). The following section includes discussion of the benefits of utilizing expatriate workers for international business leaders as well as the financial and nonfinancial costs associated with using such employees. A comprehensive understanding of the expatriation process along with an organizational environment that supports the overseas worker allows for global managers to support the employee and improve the chances of business success (Feitosa et al., 2014)

Benefits of expatriates. Expatriates who successfully work abroad offer the benefit of controlling the international identity of the foreign location, securing business relationships and transactions in the new nation, and building the knowledge and skills of the employee for use at a later time (Feitosa et al., 2014). Employees moving from the parent company also fill the skill gap that may exist within the local employment market (Cesário et al., 2014). Expatriate workers provide the understanding of the business along with the skills and experience from the corporate location to establish the organization in the international market (Kassar et al., 2015). International assignments prove effective in increasing the employee's competencies, enhancing relationship building, and motivating the worker for developing within the organization (Bücker, Poutsma, & Monster, 2016).

Filling the skills gap. The most frequently cited reason for using expatriate employees in international assignments includes the widening skill gap that exists within the new location and home country (Caligiuri & Bonache, 2016). In various instances, the local workforce remains unqualified in both the management and technical skill requirements of the position (DeNisi & Sonesh, 2016). With a shortage of knowledgeable experts in the region, corporate leadership hesitates to spend the time and money to train local employees who lack an established history or future prospect with the organization (Sarkiunaite & Rocke, 2015). In these cases, the expatriate worker provides the knowledge that employees lack in the local market and can act as agents for transferring this proficiency to the local workers (DeNisi & Sonesh, 2016).

*Retaining employees as assets.* As the nature of business changes, leadership in global organizations increase the value placed on the international experience of their workforce (Suutari, Brewster, Mäkelä, Dickmann, & Tornikoski, 2018). These expatriate employees contribute to the strategic direction of the organization by developing managerial skills in cross-

cultural areas (Caligiuri & Bonache, 2016). Additionally, the on-the-job experience gained through expatriate assignments creates valuable learning opportunities that impact career success (Suutari et al., 2018).

Organizational leaders recognize employee development as the second most frequently cited reason for sending workers on international assignments (Caligiuri & Bonache, 2016). The employee also gains an additional understanding of the global business and enhances their knowledge of the global operations (Bonache & Noethen, 2014). In many cases, the opportunity for advancement within the organization increases career opportunities for the executive level business professional (Caligiuri & Bonache, 2016). Global management provides a necessary skill and expatriate assignments offer on-the-job training for workers looking to develop in this area (Li & Jackson, 2015).

Expatriate assignments enhance the value of the worker to the organization and also provide enriched and diverse life experience for the employee (Ren, Yunlu, Shaffer, & Fodchuk, 2015). Such projects offer employees the potential to grow in intercultural awareness and improve their overall global understanding of business operations (Caligiuri & Bonache, 2016). Moreover, achievement in international positions improves knowledge and skills which often lead to fresh career opportunities for the worker (Sarkiunaite & Rocke, 2015). Employees who are well-trained and supported by organizational leadership before during and after expatriate assignments, demonstrate improved job satisfaction and commitment to the organization (Cesário et al., 2014).

*Controlling corporate identity.* The increase in corporate control and coordination, along with the building of corporate identity and business culture, encompass the nonfinancial benefits of utilizing an expatriate employee rather than a local hire (Bonache & Noethen, 2014). Because

the expatriate moves from the corporate location, the business objectives remain clear, and the adherence to organizational standards easier to maintain and control (Cesário et al., 2014). A worker with background knowledge from the headquarter office can ensure that the interests of the overall organization remain secure and that decisions made at a subsidiary location do not inadvertently compromise the strategic business direction (Caligiuri & Bonache, 2016). The expatriate understands the corporate culture and can more effectively contribute to organizational strategy (Sarkiunaite & Rocke, 2015). Furthermore, this worker supplies the general knowledge of organizational operations or processes that only builds through experience within the operations (Caligiuri & Bonache, 2016).

*Building relationships.* Parent company representatives build relationships between host country nationals and create contacts that enhance the ability of the organization to succeed in local markets (Caligiuri & Bonache, 2016). Expatriates represent the company locally as an important salesperson and emissary for the organizational philosophy, culture, and strategical direction (Sarkiunaite & Rocke, 2015; Teague, 2015). Such expatriate employees coordinate interactions between local business units and the parent organization, thus increasing communication and improving organizational cultural awareness within the subsidiary (Caligiuri & Bonache, 2016).

***Cost of expatriates.*** Because of the significance of embarking on an overseas assignment, the process of moving an employee internationally remains costly in both financial and nonfinancial aspects (Sarkiunaite & Rocke, 2015). Financial costs include a variety of items above the base salary level of the worker (Ditchburn & Brook, 2015). While these monetary expenses represent clear financial outlays, the nonfinancial burden of living overseas proves just as significant for both the employee and the employer (Kassar et al., 2015).

*Financial cost of expatriates.* While total cost calculations associated with failed expatriate assignments remain challenging to accurately quantify, approximate estimates indicate unsuccessful expatriates cost between 2.5 to 10 times the rate of a local hire (Ditchburn & Brook, 2015; Feitosa et al., 2014). As the employee salary and compensation package can account for not only the new wage, but also training, relocation services, housing allowances, insurance, visas, and children's school tuition, the cost of the international worker remains excessive (Ditchburn & Brook, 2015; Kassar et al., 2015). Furthermore, the base salary must provide motivation for the employee to move, account for all applicable taxes of the new nation, include adjustments for promotion, and combine any additional hardship allowance to account for the stress that the family must endure (Sarkiunaite & Rocke, 2015).

*Nonfinancial cost of expatriates.* The nonfinancial cost of expatriates' failure remains challenging to calculate and impacts both the organization and the employee (Shi & Franklin, 2014). Negative effects for the organization include the loss of relationships, both internally and externally, within the local firm and with business associates, government employees, and customers (Shi & Franklin, 2014). Meanwhile, workers experience extreme stress and anxiety that impairs not only the work performance, but also the individual's mental and physical health (Gibson et al., 2015; Rosenbusch, Cerny, & Earnest, 2015).

When expatriate assignments fail, the morale within the local organization suffers (Shi & Franklin, 2014). The additional cost of expatriate failures includes damaging the relationships between local governments and businesses partners with the firm (Shi & Franklin, 2014). Expatriate failures impact the reputation of the firm within the local area and potentially deter future local business opportunities (Shi & Franklin, 2014). These costs of losing customers and damaging relationships with national government officials or local employees represent

significant indirect expenses for the business and remain challenging to enumerate (Bonache & Noethen, 2014).

Additionally, the impact on the individual expatriate represents an indirect cost. Expatriate workers experience a tremendous amount of anxiety and uncertainty regarding the expectations of both work and non-work related issues within the new location (Sambasivan, Sadoughi, & Esmaeilzadeh, 2017). This anxiety and stress leads to a reduction in performance and a failure to integrate on the part of the worker (Sambasivan et al., 2017). Causing the worker to burn out or waste talent as a result of a failed assignment serves as a detriment to the organization (Gibson et al., 2015).

Moreover, the expatriate who fails can suffer a loss of self-confidence, strained family relationships, and career disruption (Gibson et al., 2015). The worker can personally experience excessive absences, alcohol and drug abuse, depression, aggression toward others, job loss, and early return as a result from the increased stress of living and working abroad (Rosenbusch et al., 2015). Less severe effects of moving abroad for work include increased illness and weight gain (Rosenbusch et al., 2015). Each of these effects of international assignment failure damage the expatriate in ways that remain unquantifiable in both time and monetary expense.

***Summary of expatriate overview.*** Because of the excessive cost of employing expatriate workers, international managers should thoroughly understand both the positive and negative aspects associated with moving employees overseas. Benefits for the organization include maintaining control in the new location, building business and governmental relationships, and filling a gap in the local market caused by a lack of skilled workers (Cesário et al., 2014; Feitosa et al., 2014). The worker increases knowledge in organizational awareness, cultural

understanding, and job skills as a result of international experience (Caligiuri & Bonache, 2016; Sarkiunaite & Rocke, 2015).

Costs for the organization and the employee remain high from both a financial and nonfinancial perspective. For the organization, the financial costs include not only the base salary, but also additional benefits such as training, housing allowances, international health insurance, flights home, and children's school tuition (Ditchburn & Brook, 2015). Nonfinancial issues manifest in the deterioration of relationships with local business, governments, and customers (Shi & Franklin, 2014). Stress and anxiety increase after an international move, sometimes resulting in reduced worker performance and physical and psychological challenges (Gibson et al., 2015; Rosenbusch et al., 2015).

**Stages of expatriation.** The repeated cycle of expatriation includes the four phases of recruitment and selection, preparation and training, relocation and support, and repatriation (Tahir, 2018). Selection criteria for individuals to work as expatriates include not only the necessary knowledge, skills, and abilities to do the work, but also the cultural awareness, support networks, and personality traits to increase the potential for successful outcomes (Feitosa et al., 2014). Once leaders identify the best candidate, cross-cultural training aimed at increasing the cultural knowledge of the worker provides a means of preparing the individual for the cultural adjustment that follows (Lenartowicz et al., 2014). The relocation effort includes the process of adapting to the new location in the form of general, work, and interaction adjustment (Shi & Franklin, 2014). While the final stage of repatriation seems simple, many employees and employers underestimate the challenges with returning home (Varma & Russell, 2016).

***Selection.*** When selecting a candidate for an international assignment, recruitment offers the first stage of the process (Sarkiunaite & Rocke, 2015). The particular challenge of recruiting

an expatriate employee stems from having to assess not only job capabilities, but also the individual's ability to work in a different job context relating to the new culture (Salgado & Bastida, 2017). Selection of a qualified applicant includes the scrutiny of the individual's interpersonal abilities, work skills, cultural awareness, previous international experience or interest in working abroad, and family situation (Sarkiunaite & Rocke, 2015). Furthermore, personality traits such as extroversion and emotional stability contribute to increasing the potential success of the expatriate worker (Caliguiri, 2000).

*Cultural assessment tools.* Organizational leaders who recognize the importance of cross-cultural competence to create a competitive advantage in the global workforce also value the ability to assess and develop employee skills in culturally relevant areas (Lenartowicz et al., 2014; Matsumoto & Hwang, 2013). It remains imperative that organizational leaders finance appropriate recruitment programs to assess worker skills and clearly define expectations for the employee (Cesário et al., 2014). To this end, various cultural assessments exist to offer managers methods of predicting adaptation, adjustment, and training needs of expatriates prior to engaging in overseas work (Matsumoto & Hwang, 2013). Matsumoto and Hwang (2013) suggested that the most effective assessment tools, using both construct and ecological validity as indicators, include the Intercultural Adjustment Potential Scale (ICAPS), the Multicultural Personality Questionnaire (MPQ), and the CQS.

*ICAPS.* The ICAPS provides an assessment tool that measures how a person regulates emotions, displays an openness to unfamiliar people and experiences, remains flexible, and critically analyzes new encounters when in culturally diverse situations (Abbott, Stening, Atkins, & Grant, 2006). Each of these personality traits signify the psychological characteristics that aid an expatriate in reducing the stress associated with international relocation (Abbott et al., 2006).

While the scale originated as a tool for assessing Japanese immigrants, research increasing the validity of the tool spanned various nations (Matsumoto & Hwang, 2013). Evidence for both the construct validity and ecological validity of the ICAPS confirms this assessment tool as one of the most effective for assessing the cross-cultural competence of expatriate workers (Matsumoto & Hwang, 2013).

*MPQ.* Van der Zee and Van Oudenhoven (2000) developed created the MPQ to assess the individual's levels of cultural understanding, acceptance, social awareness, emotional constancy, and flexibility when adjusting to emotional pressures associated with living and working in another culture (Abbott et al., 2006; Korzilius, van Hooft, Planken, & Hendrix, 2011). Through the use of this assessment tool, international business managers measure the intercultural communication skills, professional knowledge, and personality traits of the expatriate which determine the individual's ability to successfully interact within diverse cultural settings (Korzilius et al., 2011). The MPQ is a more accurate predictor of expatriate success than the Big Five Personality evaluative scale (Van der Zee & Van Oudenhoven, 2000). Both the construct and ecological validity of the MPQ withstand scrutiny over time and in various research studies (Matsumoto & Hwang, 2013).

*CQS.* Once Early and Ang introduced the concept of CQ, Van Dyne et al. (2008) created a tool to assess the individual traits related to the four-factor model known as the CQS. This assessment tool measures cognitive, metacognitive, behavioral, and motivational aspects of CQ (Van Dyne et al., 2008). The ecological, construct, and predictive validity of the CQS have been established in various research studies creating the necessary validation for the use of this assessment in other studies (Collins et al., 2016). The CQS obtained validation in both self and peer ratings and showed consistent over time and within various locations (Kurpis & Hunter,

2016). Moreover, the CQS remains valid and reliable in various studies across different samples, periods of time, nations, and methods (Eisenberg et al., 2013).

*Family status.* The importance of the marital status of the potential expatriate should not be underestimated (Sarkiunaite & Rocke, 2015). Because the network associated with a family unit provides emotional support for the employee, the opinion of the family and the approval of the new living and working conditions remain an essential element for success (Sarkiunaite & Rocke, 2015). One of the main factors influencing failure in international assignments relates to the poor adjustment of the spouse and family (Rosenbusch et al., 2015). Sambasivan et al. (2017) proved a direct link exists between spousal support and cultural adjustment for the expatriate worker. Furthermore, employees who enjoy spousal support when moving to another nation exhibit increased CQ and performance levels (Sambasivan et al., 2017). When workers lack family support work teams represent surrogate families that provide the necessary support for the employee (Ritchie, Brantley, Pattie, Swanson, & Logsdon, 2015).

*Extroversion.* Extroverted individuals exhibit the traits of positive social awareness, self-confidence, approachability, and friendliness (Lemoine, Aggarwal, & Steed, 2016). Extroverts engage in group environments by being highly sociable and talkative, communicating clearly and effectively, engaging in conflict resolution, and positively effecting group cohesion (Lemoine et al., 2016). Because of the extrovert's natural ability to assert themselves, effectively interact with others socially, and build networks quickly these individuals create relationships that increase the probability of expatriate success (Caliguiri, 2000). Furthermore, the nature of an extroverted expatriate to thrive in social situations ensures that they actively seek companionship and create social networks early and easily within the new location (Yussuf, 2018).

*Emotional stability.* Emotional stability involves the individual's natural ability to remain calm and experience positive emotions when facing stressful situations in a different cultural environment (Ren et al., 2015). Without this skill, expatriates suffer both personally and professionally as they withdraw from the environment and stress builds (Caliguiri, 2000). Those expatriates who possess emotional stability view the new cultural challenge more favorably and display less negative emotions toward stress related to the changed environment (Van der Zee, Atsma, & Brodbeck, 2004). Furthermore, some individuals with high levels of emotional stability see these variations in culture as challenges to be overcome (Van der Zee et al., 2004)

***Preparation.*** After selecting the appropriate worker for the assignment, training becomes the next stage in the expatriation process (Sarkiunaite & Rocke, 2015). This step proves vital for increasing employee adjustment and decreasing the likelihood of expatriate failure (Sarkiunaite & Rocke, 2015). Literature regarding international management indicates that expatriates lack cultural knowledge because of ineffective or nonexistent predeparture training (Lenartowicz et al., 2014). Employees view training as an investment to improve performance, increase employee skills, and enhance the career of the worker (Cesário et al., 2014). Leadership in international organizations who focus on creating a culturally competent workforce understand the need for effective cross-cultural training programs (Eisenberg et al., 2013).

According to Lenartowicz et al. (2014), the most effective manner of increasing cultural knowledge in international organizations includes the use of cross-cultural training programs. The learning that occurs during cross-cultural training not only improves the cognitive knowledge related to the new culture, but also increases cultural adjustment by reducing anxiety and increasing confidence for the worker prior to a move (Feitosa et al., 2014). When cross-cultural training improves, the chances for expatriate success increase and workers gain

assurance that assignment goals can be achieved (Varma & Russell, 2016). Basing cross-cultural training on a needs assessment of the individual can focus training on the skills that the employee lacks and customize the program for its greatest effect (Forsyth, 2015; Varma & Russell, 2016).

***Relocation.*** The process of integrating into the new culture and fully adapting to life in the new environment includes a three-step progression that never ends for the expatriate (Haslberger, Brewster, & Hippler, 2013). Understanding and interpreting the surrounding environment relates to the first step of cultural adjustment (Haslberger et al., 2013). Expatriates who fail to adjust and fall into crisis mode, exhibit signs of culture shock, the second stage of integration (Haslberger et al., 2013). The final integration step includes cultural adaptation which recognizes the individual's ability to adjust behaviors to maximize effectiveness and minimize negative outcomes when interacting in the new cultural setting (Matsumoto & Hwang, 2013).

*Cultural adjustment.* Cultural adjustment refers to the ability of the expatriate to successfully manage cultural differences within the new environment (Feitosa et al., 2014). Adjustment includes psychological aspects of an individual such as mood, self-awareness, and stress (Matsumoto & Hwang, 2013). Furthermore, expatriates having cultural adjustment challenges experience physical and mental health issues (Matsumoto & Hwang, 2013). The period of cultural adjustment also proves challenging as expatriates experience the separation from family and support networks that provide emotional stability for the employee (Kassar et al., 2015). The inability to cope with changes in the culture remains the most common reason for expatriate failure (Feitosa et al., 2014).

*Culture shock.* The period of discomfort and apprehension before the expatriate adjusts to the new culture refers to the period of culture shock (Caligiuri & Bonache, 2016). The stress related to the inability of the expatriate to adjust to the new environment develops into mental

fatigue and drains the energy that the worker needs to perform successfully on the job (Jyoti & Kour, 2015). The most intense stress for individuals relates to situations that become damaging to the daily functioning of the person (Rosenbusch et al., 2015). The loss of one's own culture leads to emotional distress that can take the form of depression or homesickness and can lead to expatriate failure (Caligiuri & Bonache, 2016; Fitzpatrick, 2017). Moving past culture shock allows for workers to express positive feelings toward the environment, work in a more effective manner, and live a more satisfying life (Sulaiman et al., 2014).

While the term shock seems to signify a one-time occurrence, the process of culture shock includes four distinct phases (Fitzpatrick, 2017). In the honeymoon phase, the individual feels excitement and fascination with new experiences and the fresh environment (Fitzpatrick, 2017). The second stage, known as the crisis stage, involves isolation, awkwardness, and chaos associated with the new location (Rosenbusch et al., 2015). The third stage, relating to recovery, includes cultural learning and adaptation (Fitzpatrick, 2017). The recovery stage, which is the final stage, includes adjustment and familiarity with the culture (Rosenbusch et al., 2015).

*Cultural adaptation.* The key aspect of successful cultural adaptation occurs when the expatriate becomes confident when coping with the stress from the new surroundings (Rosenbusch et al., 2015). Cultural adaptation includes both a psychological component including reigniting a sense of identity, improving mental health, and achieving overall life satisfaction (Presbitero, 2017). The other aspect of adaptation includes a sociocultural aspect meaning that the expatriate experiences general life satisfaction in the areas of work, school and society as a whole (Presbitero, 2017). Achieving both psychological and sociocultural adaptation increases the likelihood of success of international assignments (Presbitero, 2017).

Cultural adaptation includes the multi-dimensional components of general adjustment, work adjustment, and interaction adjustment (Shi & Franklin, 2014). General adjustment refers to adapting to the local area, work adjustment includes acclimating to the new work situation, and interaction adjustment embraces the successful interactions with local host-country individuals (Huff, 2013). Successfully adapting to the culture suggests that the worker alters behaviors based on the environment, circumstances, or social norms (Matsumoto & Hwang, 2013).

General adjustment occurs when situational factors such as living and housing conditions positively affect the physical and psychological health of the expatriate (Ditchburn & Brook, 2015). Healthcare, weather conditions, and local cuisine also represent areas that the worker must accept to fully engage in general adjustment to the new cultural situation (Jyoti & Kour, 2015). Any transportation issues or abnormalities that cause the expatriate to pause and reevaluate the culture affects the general adjustment levels of the worker (Hyounae, Vincent, & Manisha, 2013).

According to Rosenbusch et al. (2015), work stress and lack of employment adjustment represent essential elements of cultural adjustment. Expatriates experience successful work adjustment when they adapt to the job assignment, work responsibilities, and performance measures in the new role (Ditchburn & Brook, 2015). Understanding and working effectively in the local job assignment while engaging in successful interactions with managers and supervisors enhance work adjustment (Jyoti & Kour, 2015). The values and expectations of the different location and the new business contribute to the complexity of work adjustment (Hyounae et al., 2013).

Furthermore, interaction adjustment manifests when the worker finds comfort and satisfaction when networking and mixing with the locals in the area (Jyoti & Kour, 2015). Such exchanges occur both in and out of the workplace environment (Rosenbusch et al., 2015). Successful interactions involve all aspects of communication such as gestures, posture, closeness, facial expressions, and eye contact (Ditchburn & Brook, 2015). Interaction adjustment fails when expatriates lack understanding in imbalances in status and expectations of friendship within various cultures (Ditchburn & Brook, 2015). Ditchburn and Brook (2015) discovered that the depth of the friendship, trust developed, and quality of the interaction impact interaction adjustment more than the frequency of interactions or number of relationships and significantly improves expatriate adaptation.

***Repatriation.*** Repatriation refers to the expatriate's process of adjustment back into the home country culture (Sarkiunaite & Rocke, 2015). The repatriation process represents an underestimated and unplanned phase of the expatriate process and accounts for loss in both monetary and intellectual cost (Varma & Russell, 2016). Turnover rates for expatriate employees remain almost double that of other workers, and approximately half of the individuals returning from international assignments leave within three years of return (Bücker et al., 2016). The process may even prove more challenging for the employee than the initial adjustment stemming from living in a foreign country (Sarkiunaite & Rocke, 2015). International organizations lose millions of dollars each year from repatriation challenges resulting in the loss of expatriates and costs of replacement workers (Varma & Russell, 2016).

Repatriation issues originate from two main areas: work adjustment and personal adjustment (Bücker et al., 2016). Organizational problems arise when workers feel that the international experience remains unacknowledged or underappreciated, that they lack authority

and autonomy in new roles, and resent policy and system changes that occur while the worker lives abroad (Bücker et al., 2016). When workers return many complain that they feel forgotten by the organization and find managers unable to integrate the new skills and abilities within corporate job assignments (Bücker et al., 2016). Moreover, some workers who return from international assignments feel satisfied with the new position, but view the potential for career advancement and job opportunities unavailable within the sending organization (Chiang, van Esch, Birtch, & Shaffer, 2017). Employees view the time overseas as a career derailment as they lose hierarchical positions and lack plans for future career development (Breitenmoser & Bader, 2019). The employees lose career options, feel unappreciated, and struggle to find a place within the organization (Sarkiunaite & Rocke, 2015).

Personal issues arise regarding reintegration into social groups, financial deficiencies related to lost income, and career disruptions for the expatriate's spouse (Bücker et al., 2016). Emotionally, repatriated workers feel stress related to reverse culture shock and the loss of the life they knew overseas (Szkudlarek & Sumpter, 2015). Individuals struggle to regain social and behavioral interaction skills that reflect the home culture rather than those learned in the new cultural environment (Szkudlarek & Sumpter, 2015). Furthermore, the expatriate fails to recognize the personal transformations brought about by the international experience and finds difficulty in adjusting to a culture where they have expectations of familiarity (Szkudlarek & Sumpter, 2015).

***Summary of stages of expatriation.*** Moving an employee internationally for an expatriate assignment necessitates management support in the aspects of selection, training, relocation, and repatriation (Tahir, 2018). When selecting a candidate, assessments for cultural abilities, the family situation of the worker, and the personality traits of the individual provide

data to the international manager to aid in making the best staffing decision for the organization (Sarkiunaite & Rocke, 2015). Once leadership chooses the candidate, offering cross-cultural training to the individual prior to departure increases cultural knowledge and improves cultural adjustment (Feitosa et al., 2014).

The process of adjustment and adaptation to the new culture represents a third aspect of the expatriate assignment. The inability or unwillingness of the individual to adjust to the new location offers the greatest reason for expatriate failure (Caligiuri & Bonache, 2016). While repatriation appears relatively simple, failure in this final stage negates the success of the assignment and costs the firm in both money and loss of talent (Varma & Russell, 2016). Organizational leaders who develop a strategy for supporting the worker in each of the stages of expatriation prove vital in creating an effective expatriate program.

**Theories of culture and intelligence.** The developers of CQ theory relied on the previous research involving culture and intelligence to create the basic structure of the model (Earley & Ang, 2003). Research involving culture stems from the seminal work of Hofstede and the resulting comparative studies that developed the framework for cultural dimensions (Jarjabka, 2014). Trompenaars and Hampden-Turner expanded the work of these national cultural dimensions and furthered the foundational research regarding culture (Abbott et al., 2006). The studies involving various intelligence theory base the concepts on the initial work of Sternberg's intelligence models (Earley & Ang, 2003). Because of the significance of each of these concepts to the development of CQ and the CQS, the following sections include a detailed look at each one.

***Hofstede.*** Geert Hofstede provided one of the most widely accepted and used theoretical frameworks regarding culture that spanned several decades (Jarjabka, 2014). The definition of

national culture created by Hofstede in 1994, included the idea that clusters of individuals within a group act and behave in a manner that distinguishes one category of people from another (Crowne, 2013). Culture consists of not only the shared elements of the natural environment, but also the learned behaviors and beliefs of a group (Crowne, 2013; Thomas & Inkson, 2009). Common national and social norms pass from generation to generation through modeling and observation in the process of socialization (Lenartowicz et al., 2014). Cultures influence how groups of people think, feel, speak, relate to one another, and express thoughts and opinions (Edwards, 2015). Hofstede organized cultural dimensions into five categories of power distance, individualism/collectivism, uncertainty avoidance, masculinity-femininity index, and long-term orientation index (Jarjabka, 2014).

*Power distance.* Power distance refers to the level of acceptance that the society exhibits for varying levels of power ascribed to different people or organizations within the culture (Vasile & Nicolescu, 2016). High-power distant cultures expect power to be focused at the top with key leaders making decisions; while low-power distant societies focus less on hierarchy and more on collaborative participation (Jarjabka, 2014). This cooperative attitude within low-power distant societies improves consensus and decreases the number of negative conflicts (McSweeney, Brown, & Iliopoulou, 2016).

*Individualism and collectivism.* Individualism and collectivism refer to the degree that the culture expects the individual to care for themselves or the community (Beugelsdijk, Maseland, & van Hoorn, 2015). In regions with an individualistic focus, the value of the person remains paramount and collective responsibility only includes one's immediate family members (Migliore, 2011). People in individualistic cultures may associate with groups, but they bond with many groups in an insincere way (Thomas & Inkson, 2009). Cultures valuing collectivism

stress the importance of protecting and preserving the society with increasing loyalty to the group as a whole (Migliore, 2011). People in collectivist cultures identify with a fewer number of groups and bond tightly with others in those clusters (Thomas & Inkson, 2009). Individualist societies prefer working individually with great autonomy; while collectivist cultures value group work and creating a harmonious work environment (Jarjabka, 2014).

*Uncertainty avoidance.* Uncertainty avoidance refers to the collective nature of the society's acceptance of things that are uncertain or ambiguous (Vasile & Nicolescu, 2016). National cultures that display high uncertainty avoidance prefer rules, order, and stability (Jarjabka, 2014). Societies described as low uncertainty avoidance remain more flexible, easily adaptable to change, and less focused on following laws and rules (Jarjabka, 2014).

*Masculinity-femininity index.* Masculine and feminine societies focus on the differences in both social and emotional roles of the two genders (Vasile & Nicolescu, 2016). In masculine cultures, gender roles seem well-defined with men expected to remain tough, confident, and successful while women display modesty, passivity, and tenderness (Migliore, 2011). Societies focusing on more masculine tendencies value achievement and competitiveness (Farivar, Cameron, & Yaghoubi, 2016). Feminine groups blend gender roles with both men and women expected to focus on the quality of life rather than success (Migliore, 2011).

*Long-term orientation index.* In reference to time orientation, societies with a long-term orientation accept the idea of delayed accomplishments while those with short-term focus want all needs met in a timely fashion (Migliore, 2011). Cultures focused on long-term goals remain more future-oriented, display increased persistence, and save more than short-term societies (Beugelsdijk et al., 2015). Nationals with a short-term orientation focus on traditions and social responsibilities more than future goal setting (Beugelsdijk et al., 2015).

***Trompenaars and Hampden-Turner.*** Known as one of the most-recognized contemporary works on the study of culture, Fons Trompenaars and Charles Hampden-Turner provided some of the foundational work regarding culture and diversity in nations and business (Abbott et al., 2006). According to Trompenaars and Hampden-Turner (1998), culture develops in layers that must be unpeeled much like an onion. The outer layers represent traits that are visible, while the middle layer includes the values and norms that govern the actions and behaviors of the cultural group (Engle & Crowne, 2013). The inside core symbolizes the assumptions about life that seem generally accepted by the individual members (Engle & Crowne, 2013). Trompenaars and Hampden-Turner created seven dimensions of culture and placed them on a binary scale representing both national and organizational cultures (Jarjabka, 2014). These seven categories of culture include universalism and particularism, individualism and communitarianism, emotional and neutral, specific and diffused, achievement and ascription, sequential and synchronic views of time, and internal and external locus of control (Patel, 2017; Richter et al., 2016).

*Universalism versus particularism.* In a universalist culture, the participants focus on rules and standards of behavior that all recognize, understand, and follow (Trompenaars & Hampden-Turner, 1998). Individuals coming from a nation where universalist culture prevails believe that rules exist to be followed and exceptions cause the rules to weaken and systems to collapse (Trompenaars & Hampden-Turner, 1998). For a particularist society, the focus shifts to particular circumstances of the specific situation and allows for rules to be broken for certain people and in certain instances (Trompenaars & Hampden-Turner, 1998). A particularist society values the personal relationship more than the rules and guidelines (Jarjabka, 2014).

*Individualism versus communitarianism.* The dimension related to individualism and collectivism identified by Trompenaars and Hampden-Turner strongly aligns with this same dimension from Hofstede (Jarjabka, 2014). This element represents a focus on either the self or common goals and objectives that benefit the group (Trompenaars & Hampden-Turner, 1998). When individuals focus on the wants and needs of the person, rather than seeking the best solution for the common good, the society represents the individual, rather than a utilizing a communitarianism emphasis (Trompenaars & Hampden-Turner, 1998).

*Emotional versus neutral.* In emotional or affective cultures, individuals show emotions clearly in the form of gestures, facial expressions, or tone (Trompenaars & Hampden-Turner, 1998). Members of neutral cultures control emotions and moderate behavior so that expressions and feelings remain unnoticed or undetected (Trompenaars & Hampden-Turner, 1998). Emotional cultures engage easily in confrontation and prefer to conduct such discussions in public while neutral societies exhibit self-control and distance themselves from conflict (Jarjabka, 2014).

*Specific versus diffused.* The specific versus diffused dimension refers to the amount that the job and personal life roles remain relatively the same (Jarjabka, 2014). In a specific culture, the job responsibility and title of an individual applies only when they perform the duties of this role (Trompenaars & Hampden-Turner, 1998). For diffused societies, the tile, standing, and reputation of the person extends in every aspect of life and crosses from professional to personal spaces seamlessly (Trompenaars & Hampden-Turner, 1998).

*Achievement versus ascription.* Achievement versus ascription cultures differ in the focus based on what the individual does rather than what the person represents (Trompenaars & Hampden-Turner, 1998). Ascription cultures attribute success to things such as age, gender,

social status, education, or profession (Jarjabka, 2014; Trompenaars & Hampden-Turner, 1998). Achievement cultures base status in the society to the personal achievement of the individual and their proven record of success (Trompenaars & Hampden-Turner, 1998).

*Sequential versus synchronic views of time.* The focus on time refers to a sequential or synchronic understanding (Jarjabka, 2014). With a synchronic concentration, time relates to a circular series of events that pass regularly with common seasons or rhythms (Trompenaars & Hampden-Turner, 1998). For a sequential relationship, the focus of time relies on a progression from one stage to another (Trompenaars & Hampden-Turner, 1998). Individuals working in a sequential framework do so according to a process of completing each task within a progression; while those who follow a synchronic method tend to multitask, finishing many tasks simultaneously (Trompenaars & Hampden-Turner, 1998).

*Internal versus external locus of control.* Attitudes regarding the external environment refer to the dimensions of internal and external loci of control (Jarjabka, 2014). For those cultures considered external in focus, the people seek to live in harmony with the environment; while those with internal control strive to regulate nature (Jarjabka, 2014). Individuals with an external focus act according to the laws of nature and those with an internal focus seek to subdue the things living and growing on the earth (Trompenaars & Hampden-Turner, 1998).

***Intelligence theory.*** Robert Sternberg's three-part model of intelligence provides the foundation of various intelligence models (Earley & Ang, 2003). Theories of general intelligence, emotional intelligence, and social intelligence, build from Sternberg's model of intelligence including cognitive, motivational and behavioral facets (Earley & Ang, 2003). The framework for CQ builds on this model of intelligence with a focus on an individual's capacity

for recognizing, understanding, and behaving effectively in various cultural situations (Eisenberg et al., 2013).

*General intelligence.* The ability of an individual to effectively display math and language skills refers to the IQ (Forsyth, 2015). General intelligence includes the ability to understand and reason through complex concepts and solve challenging problems (Kurpis & Hunter, 2016). Definitions and research regarding general intelligence vary over time, but regularly include cognition and motivation as well as behavioral aspects (Earley & Ang, 2003). Cognition represents items that an individual learns and knows and also includes a metacognitive feature of processing, interpreting, and controlling one's cognition (Earley & Ang, 2003). Motivation includes the level of energy an individual focuses on mental functioning (Earley & Ang, 2003). Behavioral aspects of intelligence represent the observed byproduct of mental capacity (Earley & Ang, 2003).

*Emotional intelligence.* Emotional intelligence allows an individual to interpret those traits that distinguish one human from another (Gonçalves et al., 2016). Those individuals with high levels of emotional intelligence effectively gauge the emotional states of others and monitor their own emotions to improve interactions with others (Thomas, 2016). Such emotional awareness allows some to observe, interpret, and act upon emotions to find answers and solutions (Alon, Boulanger, Meyers, & Taras, 2016). Emotional intelligence represents a critical aspect of personal behavior and without such awareness, individuals lack the ability to behave effectively (Arghode, 2013).

*Social intelligence.* Social intelligence refers to the individual's ability to interact, display empathy, and relate comfortably when dealing with others (Thomas, 2016). Being able to effectively solve problems with and through other people contributes to the person's ability of

social intelligence (Earley & Ang, 2003). The skill of understanding and interpreting the emotions of others and then acting in an appropriate manner based on this information involves a higher level of social intelligence (Arghode, 2013). Individuals with social intelligence reflect on the time, content, and occasion of certain situations and respond in a socially effective style (Arghode, 2013).

*Cultural intelligence.* Not only having an understanding of culture, but also possessing the mental capacity and thoughtful awareness for when and how to control one's behavior in multicultural situations represents the complexity of CQ (Edwards, 2015). Earley and Ang (2003) first introduced CQ in 2003, basing their model on Sternberg's research and three aspects of cognitive, motivational, and behavioral intelligence. Cognitive features represent the culture-specific information that the individual gains through study and observation which improves decision-making (Rafieyan, Golerazeghi, & Orang, 2015). Another aspect of the cognitive function relates to metacognitive skills and addresses the individual's ability to analyze a situation and put cognitive knowledge to work appropriately in a culturally diverse situation (Livermore & Van Dyne, 2015). Motivational CQ refers to the interest and willingness of an individual to interact with people from different nations (Jyoti & Kour, 2015). The behavioral aspect of CQ involves the flexibility of the person to adjust behaviors based on the cultural situation at hand (Edwards, 2015).

***CQ research.*** This section includes a review of the various studies regarding CQ and provides information regarding the gaps that currently exist within the literature. Early research began on the topic of CQ with studies involving multicultural teams and language ability (Huff, 2013; Moon, 2013). Researchers then investigated CQ relative to short-term cultural immersion experiences in various nations as well as the impact of cultural training on CQ measures (Chen,

2015; Crowne, 2013; Mayer, Viviers, Flotman, & Schneider-Stengel, 2016; Wood & St. Peters, 2014). Increasing CQ affected the job performance and task performance in studies performed in the nations of India and Malaysia (Jyoti & Kour, 2015; Sambasivan et al., 2017). Finally, researchers identified a link between CQ and effective international leaders in Vietnam and the United Arab Emirates (Aldhaheri, 2017; Tuan, 2015).

*Early research involving CQ.* While not relating specifically to expatriate success, in Korea, Moon (2013) evaluated the impact of CQ levels on the effectiveness of multicultural teams and validated the CQS. By using the CQS to evaluate the study participants, Moon determined that high levels of CQ positively impact general team performance when increased diversity in the team exists. While teams that lack cultural diversity perform well initially, diverse teams outperform homogeneous teams in the long-term. Additionally, when team members display high CQ measures, the group achieves higher outcomes over time (Moon, 2013). According to Moon, group interactions and team performance improve when CQ measures of team members increase.

In Japan, Huff (2013) provided additional information related to the effects of language and CQ along with further validating the CQS. Relying on the CQS, Huff successfully reinforced previous study results indicating that motivational CQ (CQ Drive) represents a strong predictive indicator for success and levels of happiness in expatriates. While local language knowledge might seem to be an indicator of work adjustment, Huff found that such understanding of the language offers little correlation with work adjustment levels for expatriates. Huff's study supports the findings that CQ Drive represents a determining factor in predicting expatriate success and suggests that local language knowledge offers no predictive indicators for increasing worker adjustment in international assignments.

*CQ research and cultural exposure.* Crowne (2013) presented new findings regarding cultural interactions and on CQ measures. Cultural exposure includes not only the number of interactions with those from another culture, but also the depth of those experiences (Dias, Zhu, & Samaratunge, 2017). By utilizing the CQS in the research, Crowne discovered cultural exposure positively impacts CQ measures for the individual. The research verified that the number of places visited which provide a variety of cultural exposures result in increased levels of CQ (Crowne, 2013). Culture represents a learned behavior and, as such, those who gain exposure to additional cultures learn to adopt behaviors and manners that remain accepted in other cultures (Crowne, 2013). Furthermore, as expatriates increasingly interact with the local people, the individual's CQ measures positively increase (Crowne, 2013). Crowne's research places significance on the frequency of international travel opportunities along with the increased interaction with locals to the positive increases in CQ measures.

Researchers have also examined the effects of North American international business students' study abroad programs on individual CQ measures. Varela and Gatlin-Watts (2014) found that study abroad terms impact cognitive and metacognitive measures of CQ more significantly than did motivational and behavioral CQ levels. While remaining in a new location for a period of time impacts the metacognitive and cognitive aspects of the individual, changing the motivational and behavioral components of CQ reflect more in the willingness of the student to interact and engage with the local culture (Varela & Gatlin-Watts, 2014)

Wood and St. Peters (2014) contributed to early research regarding CQ with a study examining the effects of increased international travel on all four dimensions of CQ. Using the CQS both before and after the cultural exposure, Wood and St. Peters discovered increased CQ measures in CQ motivation, cognitive, and metacognitive after an 11- to 12-day short-term

international study abroad trip. CQ behavior remained significantly unaffected by the immersion experience (Wood & St. Peters, 2014). Based on this study, short-term international trips prove effective in positively impacting three of the four measures of CQ and without prior planning, these tours have no effect on CQ behavior measures (Wood & St. Peters, 2014).

*CQ research and training.* CQ studies addressing training interventions involve a variety of approaches. In Europe, researchers studying the effects of the cross-cultural role-playing simulation game, Ecotonos, for international business students in France and the Netherlands discovered increased levels of three of the four CQ components (Bücker & Korzilius, 2015). Metacognitive, motivational, and behavioral CQ levels remained positively impacted by this simulation experience (Bücker & Korzilius, 2015). Furthermore, students increased their confidence in cross-cultural situations as a result of these exercises (Bücker & Korzilius, 2015).

CQ research extended into the church with a study in Germany regarding both cultural and emotional intelligence (Mayer et al., 2016). In this study, Mayer et al. (2016) determined that specialized training could increase both the emotional and CQ measures for clergy who voluntarily participated in a 12-day training program focused on these topics. Methods for training during this study included cultural theory, group communications, and case study analysis, but were not based on individual assessments or needs (Mayer et al., 2016).

In a study by Chen (2015) based in Taiwan, CQ for Filipino laborers showed a significant predictor of job involvement. Workers brought to Taiwan from the Philippines who participated in cultural training as part of the immigration process, increased CQ measures and work adjustment levels (Chen, 2015). Cross-cultural training helped workers in adjusting to the local culture and to becoming more involved in their job tasks (Chen, 2015).

Regarding the effects of cross-cultural training, Abdien and Jacob (2018) discovered a significant and positive correlation between cross-cultural training and CQ. The researchers studied approximately 175 students in the hospitality industry in both Egypt and Spain to determine that when taken independently and as a whole, cross-cultural training for all groups positively impacts the CQ levels of those receiving the training (Abdien & Jacob, 2018). With these results in mind, Abdien and Jacob recommended cross-cultural training to enhance cross-cultural awareness and improve cultural effectiveness.

*CQ research and job performance.* CQ research in China was focused on the link between increased levels of CQ and improved job satisfaction and communication (Bücker, Furrer, Poutsma, & Buyens, 2014). Bücker et al. (2014) concluded that higher levels of CQ lead to reduced anxiety for the employee and facilitate improved cultural interactions. Moreover, the positive effects of increased job satisfaction as a result of higher levels of CQ and improved communication, encourages workers to remain with an organization for longer duration (Bücker et al., 2014)

Research regarding CQ expanded into India with an assessment of managers within the Indian banking system (Jyoti & Kour, 2015). In this study, Jyoti and Kour (2015) found CQ to be positively linked to increasing task performance and cultural adjustment for the manager. Managers who exhibit higher measures of CQ work more successfully as they do not experience increased levels of mental fatigue that overwhelms those managers with lower CQ measures (Jyoti & Kour, 2015).

Researchers conducting a study in the Adriatic countries of Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Montenegro, Serbia, and Slovenia recognized the link between improved job performance and CQ levels relating to individual creativity (Bogilovic &

Škerlava, 2016). In the study, high levels of both metacognitive and motivational measures of CQ reflected increased creativity for individual employees (Bogilovic & Škerlava, 2016). According to Bogilovic and Škerlava (2016), this improved creativity allows the worker to increase job performance when creative solutions prove essential to enhancing operations.

In Malaysia, Sambasivan et al. (2017) directly linked CQ to increased job performance and cultural adjustment and determined that those who display increased CQ levels feel less anxiety and stress related to multicultural situations and can adjust quickly to the new environment. In this study, Sambasivan et al. determined a direct link between both CQ and spousal support on job performance for expatriates.

More recently, researchers examining expatriates and host country nationals in Saudi Arabia and Croatia determined that those employees with increased levels of CQ displayed a greater willingness to share knowledge with local workers (Ali, Ali, Leal-Rodríguez, & Albort-Morant, 2018; Vlajčić, Caputo, Marzi, & Dabić, 2019). This improved CQ increases social interactions, thus increasing knowledge sharing and creativity within work teams (Ali et al., 2018). Employees with greater CQ levels offer organizational leadership an increased potential for both conventional and reverse knowledge-sharing with locals and should be hired and trained to capitalize on this knowledge resource within the global business environment (Ali et al., 2018; Vlajčić et al., 2019).

*CQ research and organizational leadership.* Work regarding CQ and entrepreneurial values expanded into Vietnam with a study of managers working in multinational organizations there (Tuan, 2015). Tuan (2015) discovered that managers with increased CQ levels could better assess the employee's values and align those individual principles with the entrepreneurial values of the organization. The enhanced understanding of subordinates allows for tailored training and

coaching for workers so that the organizational focus on entrepreneurial initiatives moves forward (Tuan, 2015).

In further research on CQ for leaders within global organizations, Aldaheri (2016) introduced a study regarding leaders of international schools that determined that CQ represents a vital leadership characteristic for individuals intending to manage multicultural educational institutions. Furthermore, leaders with greater CQ exhibit enhanced flexibility of management style and can rapidly adjust to the environment (Aldhaheri, 2017). Leaders who lack cultural competence spend more effort in adjusting culturally and have less energy to concentrate on adapting leadership style to match the situation (Aldhaheri, 2017).

The role of CQ related to conflict management styles and cultural orientation became a topic for observation in the United Kingdom recently (Caputo, Ayoko, & Amoo, 2018). Caputo et al. (2018) studied approximately 400 workers and found the CQ provided the link between cultural orientation and individual conflict management styles. This research expands the body of knowledge related CQ and introduces the moderating role that each CQ factor plays between cultural orientation and conflict management styles (Caputo et al., 2018).

***Summary of culture and intelligence theories.*** The concept of CQ developed over the past decade with researchers continuing to confirm the validity and reliability of the scale over time (Matsumoto & Hwang, 2013). Based on intelligence theory and studies on culture, CQ assessments provide organizational leaders with an effective method of measuring the four dimensions of cultural capabilities for the individual (Livermore & Van Dyne, 2015). As CQ measures indicate which individuals cope, adapt, and perform more effectively in culturally diverse situations, the CQS provides a stable assessment tool for evaluating the four dimensions of culture for an individual (Şahin et al., 2013; Van Dyne et al., 2008).

**Cross-cultural training.** Cross-cultural training programs serve as attempts to teach workers the norms, values, and behaviors unique to the new cultural environment (Caligiuri et al., 2001). Typical preparation programs embrace the five common types of intercultural training methods of cognitive, attributional, experiential, self-awareness, and behavioral models (Earley & Peterson, 2004). Furthermore, developing a framework for how to train, when to train, and who to train regarding expatriate assignments allows international managers to offer increased support for the worker. As e-learning gains popularity, utilizing this method of training for cross-cultural preparation offers another technique for improving the preparation and success of the worker.

***Training approaches.*** Cross-cultural training is focused on aiding someone of one culture in adjustment to another culture and teaching the worker to interact effectively with locals (Okpara & Kabongo, 2017). While various studies have been conducted to investigate the effectiveness of cross-cultural training, data regarding the usefulness of such training improving expatriate adjustment remain inconclusive (Wurtz, 2014). When discussing the topic of intercultural training, five methods for teaching currently exist: cognitive, attributional, experiential, self-awareness, and behavioral (Earley & Peterson, 2004).

*Cognitive training.* Cognitive training emphasizes the transfer of knowledge relating to basic information regarding culture and cultural differences (Earley & Peterson, 2004). Such training includes the use of lectures, films, articles, and case studies, and typically does not include active participation from trainees (Earley & Peterson, 2004; Okpara & Kabongo, 2017). Cognitive training involves acquiring knowledge, but lacks focus on how the individual can put this cultural information into practice (Earley & Peterson, 2004).

*Attributional training.* Attributional training involves the interpretation of various cultural incidents facilitated with the use of varying cultural scenarios representing significant culture clashes (Earley & Peterson, 2004). Participants in such training view cultural situations and choose the underlying explanation for the breakdown of the cultural interaction (Earley & Peterson, 2004). Individuals participating in this type of training program compare changing cultural incidents to understand the beliefs, motivations, and objectives of the individuals within the new cultural environment (Morris, Savani, Mor, & Cho, 2014). Attributional understanding provides expatriates an opportunity to increase empathy and sensitivity toward those from different cultures (Degens, Hofstede, Beulens, Krumhuber, & Kappas, 2016).

*Experiential training.* During experiential training, the participants actively engage in learning about culture through the use of role-playing exercises, field visits, and simulation experiences (Earley & Peterson, 2004). Experiential training allows the participant to not only gain knowledge of cultural differences, but also to increase awareness of stereotypes and biases, thus creating a greater understanding of culture and self during the process (Alexandra, 2018). While this style of training proves most demanding for the trainee, it also represents the most effective form of cross-cultural training for the worker (Alexandra, 2018).

*Self-awareness training.* In self-awareness training programs, trainees aim to discover the values, beliefs, and actions that form their cultural norms and contrast those with the standards of the new cultural environment (Earley & Peterson, 2004). Trainers typically focus on creating a wide gap between the cultures and help the workers identify feelings of discomfort or acceptance regarding these stark differences (Earley & Peterson, 2004). During self-awareness training, instructors teach participants to regulate reactions to increase cultural interaction success in future encounters (Fan & Lai, 2014).

*Behavioral training.* Behavioral training includes observing the nonverbal actions of the individual including body language, social distance, and gesturing (Earley & Peterson, 2004). This style of training allows the participant to model the behavior of others rather than focus on the individual's own deficiencies in non-verbal communication (Fan & Lai, 2014). Behavioral training improves the individual's ability to adjust to the communication style of the new culture to create positive encounters with the local people (Okpara & Kabongo, 2017). Such training proves time-consuming and requires significant effort from participants (Earley & Peterson, 2004).

***Benefits of cross-cultural training.*** Benefits of cultural training for the worker include increasing job satisfaction and retention levels of expatriate employees (Forsyth, 2015). Moreover, when workers understand the values and beliefs of the individuals in the new culture, the expatriate gains confidence and increases their ability to handle stress and anxiety related to the move (Jyoti & Kour, 2015). Employees that undergo effective cultural training adapt to the local culture and feel more comfortable with living and working in the new location (Kassar et al., 2015). When employees understand the culture and have a realistic picture of the assignment, the potential for success of the worker increases (Bücker et al., 2016).

Cross-cultural training programs act as a signal to the employee that the organization supports the worker, thus increasing adjustment ability (Hyounae et al., 2013). Organizational leaders benefit from these training programs as they offer a competitive advantage over global competitors, prevent business losses due to employee cultural insensitivity, and decrease wasting resources on failed international projects (Forsyth, 2015). Furthermore, the overall effectiveness of an international firm increases when the efficacy of the workforce improves (Forsyth, 2015).

*How to train.* When managers in international organizations seek to develop cross-cultural training programs, determining the manner of training to build a foundation of cultural differences and an understanding of cultural adjustment proves challenging. Lack of understanding of the basic differences of the new culture provides the foundation for poor adjustment, so simple cultural training proves essential to avoid this circumstance (Hyounae et al., 2013). Because most cultural training programs intended to prepare workers for international assignment are only focused on improving the individual's understanding of factual differences regarding culture, such curriculum does little to modify worker behavior when conducting cultural exchanges (Lenartowicz et al., 2014). Developing individualized training focusing on the specific challenges the employee will face along with skills gaps that exist prove most effective in preparing the worker for an international assignment (Sarkiunaite & Rocke, 2015).

To promote the most learning, the expatriate should experience various forms of training methods (Feitosa et al., 2014). Literature, lectures, and media provide trainers various methods of creating a cultural foundation for the trainee, however incorporating role-play, simulations, and immersion, provide opportunities for the worker to actively participate in training and retain more material (Lenartowicz et al., 2014). Interactive learning through the use of role-plays and simulated experiences also most significantly affect the actions, behaviors, and beliefs of an individual when faced with differing cultural dilemmas (Lenartowicz et al., 2014). With an abundance of both time and money, managers who mix knowledge and simulation training provide the most benefit to the worker for increasing cultural awareness and behavior modification thus increasing cultural effectiveness (Lenartowicz et al., 2014). When time and money offer limited constraints, using technology to deliver training that employees can access at their leisure provides an acceptable alternative to classroom activities (Hyounae et al., 2013).

A training program that is only focused on the cognitive aspects of culture proves useful, but such learning inadequately prepares the individual to interact in culturally diverse situations (Kurpis & Hunter, 2016). As workers spend shorter time within a nation and work in various countries, the need for holistic cultural awareness rather than country-specific knowledge increases (Earley & Peterson, 2004). Including a discussion of the more general concepts and themes during cultural training and relating those themes to the individual's adaptability in culturally diverse situations moves cognitive training into a metacognitive awareness of culture (Earley & Peterson, 2004).

Individual assessments that indicate the strengths and weaknesses of an individual provide a baseline for creating cultural training programs suitable for the person (Earley & Peterson, 2004). Successful cultural training should improve the expatriate's ability to recognize and adapt to cultural situations and solve cultural dilemmas using higher-order reasoning skills (Presbitero, 2017). Developing a training program based on an assessment of the individual and the gaps in learning for the person allows the trainee to create strategies that prove useful when dealing with situations and people in other cultures (Kurpis & Hunter, 2016).

*Determining who to train.* Offering training for the expatriate and the other family members who will accompany the worker on the international assignment proves beneficial for the cultural adjustment of the employee (Feitosa et al., 2014). Training for the family provides all involved with the tools necessary for understanding the new culture and behaving appropriately within the changed environment (Feitosa et al., 2014). Presenting members of the family with essential cultural information, representative job expectations for the worker, and realistic previews of life in a foreign country create a genuine foundation of expectations for all so that chances of cultural adjustment improve for each family member (Feitosa et al., 2014; Sarkiunaite

& Rocke, 2015). Furthermore, as the family accurately anticipates the cultural differences between the new nation and the native land, the more mentally prepared for the challenges they become (Teague, 2015).

*When to train.* No matter when training takes place, cross-cultural training proves most effective when the participant remains open to receiving and learning about the new environment (AlMazrouei & Pech, 2014). Studies indicate that providing training to the expatriate prior to departure mentally prepares the individual for working in the new location and sets realistic expectations for adjusting to the new environment (Sulaiman et al., 2014). In some instances, lack of time prior to departure limits the amount of training the worker receives (Hyounae et al., 2013). If this is the case, cross-cultural training programs offered by the host country provide practical information that the expatriate and family can put to use immediately (Hyounae et al., 2013). In some cases, training upon arrival in the new location provides a greater impact on adjustment than predeparture training (Sousa, Gonçalves, Santos, & Leitão, 2017). No matter when training occurs, expatriates who receive cross-cultural instruction assimilate into the new environment better than those who do not undergo training (Sousa et al., 2017).

***E-learning.*** E-learning includes any form of education presented in an electronic format (Markovič-Hribernik & Jarc, 2013). Webinars, video conferencing, e-courses, e-books, and e-testing represent some of the forms of e-learning used in organizations today (Markovič-Hribernik & Jarc, 2013). Gamification, virtual classrooms, and cloud-based learning contribute to trends in online training and development emerging as corporate teaching techniques include more technologically advanced methods of delivery (Little, 2015).

According to a 2015 report conducted by Towards Maturity, a research company involved in the benchmarking process for learning and development in organizations, 55% of

training programs occur in a face-to-face learning environment (Little, 2016). Online training through the use of e-learning tools emerged as a common training method in the age of increased technology and globalization (Sorgenfrei & Smolnik, 2016). In 2013 in international Fortune 500 organizations, e-learning use increased 40% when used as a formalized training method (Sorgenfrei & Smolnik, 2016). In 2015, e-learning opportunities accounted for preferred training approaches in 90% of the organizations surveyed across 55 countries (Little, 2016).

*Benefits of e-learning.* E-learning offers the individual control over the learning and instructional process with increased flexibility and access to information (Sorgenfrei & Smolnik, 2016). E-learning empowers the learner to engage actively in their own learning and allows the employee to complete training within the confines of the work schedule (Markovič-Hribernik & Jarc, 2013; Sorgenfrei & Smolnik, 2016). E-learning proves more cost-effective as organizations look to streamline training budgets (Markovič-Hribernik & Jarc, 2013). Electronic training offers business the opportunity to educate workers in the latest technology innovations and allows for quicker response and communication with staff regarding changes within the business environment (Markovič-Hribernik & Jarc, 2013).

***Summary of cross-cultural training.*** While studies concerning the effectiveness of cross-cultural training result in inconclusive evidence either confirming or disaffirming the benefits of such programs, organizational leaders engage in this teaching to aid workers in adjustment to new cultural environments (Okpara & Kabongo, 2017). At the very least, cross-cultural training improves confidence and decreases anxiety related to the unknown aspects of the new culture (Jyoti & Kour, 2015). Because of the flexibility and cost-effectiveness of the program, e-learning provides organizational leadership with a viable and sustainable means of training employees (Markovič-Hribernik & Jarc, 2013). Incorporating e-learning as well as other methods and forms

of training into preparation processes for workers allows global leaders an opportunity to create a comprehensive expatriation program to fully support the employee and increase the potential for success.

**Summary of the literature review.** A thorough review of the literature related to this study included information regarding expatriate workers, the stages of expatriation, intelligence and cultural theories, and cross-cultural training best practices. Because of the high financial and nonfinancial costs, along with the increased propensity for expatriate failure, discovering a proven method for increasing expatriate adjustment and improving worker and business success offers an opportunity for global business leaders to contribute to the strategic direction of the firm (Ditchburn & Brook, 2015). Furthermore, as the process of expatriation requires thorough selection, training, relocation, and repatriation international managers invest significant time and resources in supporting the worker during the entire assignment.

Since the development of CQ in 2003, various studies validated the resulting four-dimensional scale of CQ and determined that increased CQ measures predict the potential for individuals to interact in culturally diverse situations effectively (Şahin et al., 2013; Van Dyne et al., 2008). Cross-cultural training programs offer the most effective method for increasing the cultural knowledge of workers (Lenartowicz et al., 2014). Using an assessment tool to determine cross-cultural awareness allows the employer to tailor training to the worker and maximize the effects of these programs (Varma & Russell, 2016). This current study, assessing the effectiveness of combining both a cultural needs assessment and cross-cultural training through the use of the CQS, fills a gap in the expatriate literature regarding cross-cultural training, CQ, and organizational success.

**Transition and Summary Section 1**

Research is focused on the search for knowledge related to a phenomenon (Apuke, 2017). The purpose of this present research included determining if and to what extent individualized CQ training can improve the CQ levels of expatriates embarking on a cultural immersion experience. The research methodology described embraced the quantitative approach with an experimental design focus. This writing included a review of the research question and hypotheses followed by the theoretical foundation and significance of this study. Finally, a thorough review of the relevant literature provided the research foundation for the study on the topics of expatriates, culture, CQ, and cross-cultural training.

## Section 2: The Project

This section includes a detailed description of the research project along with the procedures followed for selecting subjects and gathering data for the study. A description of the role of the researcher, population and sample, and individuals participating in the study provide an explanation regarding the appropriate selection and use of the sample population. Furthermore, a justification for the research method, study design, and data collection process offer the reader a thorough understanding of the suitability of the methodology chosen for this work. The reliability and validity of the survey instrument along with the approaches for data analysis remain a portion of this section to support the accuracy of the study findings.

### Purpose Statement

The purpose of this quantitative study was to examine if individualized CQ training based on the CQ assessment conducted can affect the CQ measurements of the individual. Published research from Wood and St. Peters (2014) indicate that levels of CQ Drive, Knowledge, and Strategy all positively improve when an individual participates in a short-term immersion experience such as a cultural study tour. Conducting individualized cultural training could increase CQ awareness and cause a more significant improvement in CQ measures. Producing a study that provides evidence of the ability to increase CQ scores based on training allows global firms to tailor training efforts to improve expatriate adjustment and improve worker performance.

### Role of the Researcher

The definition of a role includes the foundation of rights and responsibilities expected of an individual given the task performed and the system of social norms related to the assignment (Kyvik, 2012). Associated with this study, the role of the researcher encompassed a wide variety

of tasks. The researcher was the individual responsible for identifying and contacting participants for involvement in the study. This researcher collected email addresses and administered the initial survey tool to all research subjects through electronic means. Furthermore, the researcher determined, through a random selection process, which participants to include in the control group and which participants comprised the treatment group. The researcher also created and administered all training material for individuals in the experimental group and issued all reassessments for all participants in the study. Finally, the researcher conducted all data analysis and conclusions for this work.

**Participants**

Participants in this study included individuals from an international organization planning to begin an overseas missionary assignment within the coming weeks or months. Initial contact and access to the participant population developed from a relationship between the researcher and a senior member of the organization's leadership in overseas mission assignments. By voluntarily logging into the CQ Center website and taking the assessments, the participants in this study consented to voluntarily share email information with the researcher with the expressed intention of participating in this research. While the email addresses of the participants remain part of this study, the assignment of the individuals to the control and experimental group proved random. The data collected through the use of the CQS remain under the control of the researcher and the CQ Center for research purposes only. Each individual gained access to a personalized CQ Report upon completion of the international mission assignment. The researcher focused on the collective analysis of the raw data presented rather than the individual score obtained by each participant.

## Research Method and Design

Research includes investigation and study to understand or explain a phenomenon (Stake, 2010). The purpose of research relates to the building of knowledge through the use of experiments to determine the cause and effect of an event and provide a foundation for future studies (Apuke, 2017). Research takes the form of qualitative, quantitative, or a combination of the two known as mixed-methods (Stake, 2010). This section includes a discussion of the research method and design used in this research project.

**Discussion of method.** Quantitative research allows the researcher to quantify variables and utilize statistical analysis tools to test a hypothesis (Apuke, 2017; Watson, 2015). Aided by the use of the CQS that produces measurable results related to an individual's CQ levels (Van Dyne et al., 2008), this study was focused on a quantitative approach to answer the research question. This quantitative study served to examine if CQ training based on the CQ assessment conducted impacts the CQ measures of the individual. Gaining a foundational measure of the individual levels of CQ through the use of the CQS allows the researcher to gather measurable data related to the CQ levels of a person and solidifies the use of a quantitative method for this study.

**Discussion of design.** An experimental design allows the researcher to create two groups of participants for the study, a control and an experimental group (Watson, 2015). In this study, a randomly selected group received a training intervention while the control group does not. This study design allowed the researcher to discover the quantifiable difference between those receiving the treatment and those who do not access the training. Because the research was focused on a training intervention and the measured effects of this training on the treatment group (Apuke, 2017), an experimental design proved most appropriate for this work. As a result

of this experimental quantitative study, the researcher determined if a training intervention based on the CQS affected cultural awareness measures which have the potential to reduce the costs associated with an expatriate failure within an international organization.

**Summary of research method and design.** In order to build knowledge related to CQ, this research was focused on the effects of a training intervention on the CQ measurements of the individual. Using the CQS, the researcher quantified CQ measures for all study participants and used this data to develop a foundation for CQ levels for each person. Then, using an experimental group who received cultural training, the researcher isolated the intervention and tested each hypothesis relating to the effect of this training intervention on CQ measures. Because of the nature of this study, using a quantitative design with an experimental focus proved most effective in answering the research question and investigating the effects of such an intervention for expatriate workers.

## Population and Sampling

Determining both the population and the sample before engaging in a research project form an essential portion of any study. Determining the appropriate sample size prior to beginning a research project guarantees a large enough sample to determine the effect of the treatment without generating excess data or utilizing excessive amounts of time or money (In, 2016; Malone, Nicholl, & Coyne, 2016). The following section includes a discussion of the population and sample chosen for this study.

**Discussion of population.** A population refers to all incidences that share common characteristics (Salkind, 2013). For the purposes of this study, the population included individuals working for an international organization who voluntarily engage in an overseas missionary experience. This population included both male and females above the minimum age

of 18 with a variety of ethnicities and countries of origin. Because the study was specifically focused on the effects of a training intervention on those who embark on a cultural immersion experience such as an overseas missionary assignment, this population proved suitable for conducting this research.

**Discussion of sampling.** The number of experimental observances included in a research project to provide an answer to the research question represents the sample size (In, 2016). A standard sample calculation of an unlimited population using a Type I error rate of .05 and a Type II error rate of .2 yields 385 study participants (Park & Yung, 2009). Likert scale questioning methods introduce a statement that the respondent answers using a scaled response (Maeda, 2014). Considering this study utilizes Likert sampling methods, the sample population adjusts down by 30% resulting in a proposed maximum sample population of 270 individuals (Park & Yung, 2009). This maximum sample population represents the upper limits of the sample used in this study.

In quantitative studies such as this one, sample size calculations are based on the probability of finding a statistically significant result for the population while including allowances for practical matters such as participant availability, researcher time, and funding (Fugard & Potts, 2015; Usami, 2014). When designing an experimental study relating to the effects of an intervention for one group and the non-treatment observations of another, the normal Type I error or alpha rests at a fixed .05 and Type II error or beta remains at .2 (Malone et al., 2016). Using a paired sample two-tailed *t* test for dependent means and including the parameters listed previously results in a projected minimum sample size of 54 individuals with equal representation from the control and experimental groups reaching 27 samples in each (Malone et al., 2016).

Convenience sampling refers to selecting a sample population that proves available for the research (Haegele & Hodge, 2015). Because the focus of this study included testing the significance of a training intervention on CQ measures for individuals embarking on an overseas assignment, locating a group that intended to participate in such an assignment proved critical. Accessing an international organization with a missionary focus ensured that a significant number of individuals available to participate in the study remained available to the researcher for examination both before and after the assignment.

**Summary of population and sampling.** This study focuses on the impact of a training intervention on a population of individuals engaging in a cultural immersion experience. Because of the volume of participants available, an international missionary organization proved the most suitable business to provide the population evaluated during this study. Using the acceptable values for both type I and type II errors, the sample size calculation resulted in a sample including a minimum of 54 and a maximum of 270 individuals. This test group created both a control and experimental sample that included an equal representation of individuals for each data set. The convenience sample population formed from the first set individuals who completed the initial CQ assessments and who planned to engage in an overseas missionary assignment for or an international missionary organization.

## Data Collection

This study included a quantitative approach with an experimental design encompassing both a control and an experimental group (Watson, 2015). The researcher utilized the existing CQS as the survey instrument for collecting the data associated with this research. The administration of the CQS occurred both before and after a training intervention to analyze the

effects of the training intervention on the experimental group. A detailed description of the instrument and data collection and analysis techniques used in this study follows.

**Instrument.** The CQS was the survey instrument used for this study. Basing their work off the original idea of CQ from Early and Ang, Van Dyne et al. (2008) developed an assessment to establish a quantifiable measure for the four-factors of CQ for an individual. The survey assessment evolved from a paper version created in the initial research to an online extended version with access through the CQ Center portal. Permission to use the CQS came from Keyla Waslawski, Director of Operations, at the CQ Center (see Appendix B).

The expanded online self-assessment tool contains 37 statements to which the respondent answers on a 7-point ordinal scale from 1 (*strongly disagree*) to 7 (*strongly agree*; (Ang, Van Dyne, & Rockstuhl, 2015; Salkind, 2013). After the individual answers the questions, scores for each category related to the four factors of CQ—cognitive, metacognitive, motivational, and behavioral—are used to create a CQ profile for each category of CQ. Furthermore, the factors of CQ represent various subdimensions, providing an overall picture for the individual regarding specific CQ measures (Ang et al., 2015).

The assessment also includes demographic questions provided by the CQ Center relating to gender, age, ethnicity, country of origin, languages spoken, international living, and travel experience (see Appendix D). Questions relating to gender, ethnicity, country of origin, and current living location refer to nominal values, while questions such as age, years of work experience, number of languages spoken, number of countries lived, and interaction with others from different cultures and countries represent ordinal values (Salkind, 2013). For the purpose of this study, the researcher relied on the online version of the CQS and required no changes in the assessment tool or the questions asked.

**Data collection techniques.** All study participants received an email with a link to the online version of the CQS accessible through the CQ Center portal. Individuals completed the assessment at their leisure using their own personal computer in the location of their choosing. After completing the individual assessment, the CQ Center produced a detailed report, known as the CQ Profile, for each person based on the scores tabulated from the online CQS. Experimental group participants had access to view their personalized CQ Profile for use in the CQ training provided.

As participants completed assessments, a randomly predetermined group of respondents who completed the initial assessment represented the experimental group and received a link to view an online training program to explain and interpret the results of the individualized CQ Profile. Additionally, this training included some action steps for improving the individual results of the CQS. The remaining half of participants formed the control group and did not receive the training related to the interpretation of the CQ Profile results. Following the initial assessment and training for those in the experimental group, all participants engaged in the scheduled overseas missionary assignment.

Upon return from the assignment, all participants in the study received an email including a link to another CQ assessment. All participants completed the posttest assessment to determine what changes, if any, occurred to initial CQ measures. After completing the assessment, all participants received access to their individualized CQ Reports including the results from the online posttest completed upon return from the international assignment. Upon return, the control group received an email to access the online training and completed such training without tracking or guidance from the researcher.

**Data organization techniques.** Data collected during this study remained on the CQ Portal with access by the CQ Center and the researcher. All participants gained access to their individualized CQ Profiles via a password-protected portal, but the raw data for each individual remained outside the view of each person. Participants also lacked access to the collective data involved in the data analysis portion of this study. The researcher retained access to all collective participant data, but did not access the personal CQ scores of individuals participating in the study.

**Summary of data collection.** Through the use of the online CQS, the researcher performed a study to determine the effects of a training intervention on CQ levels for individuals. Study participants included a convenience sample of individuals scheduled to engage in an international missionary assignment and who demonstrated a willingness to participate in the study (Haegele & Hodge, 2015). Both the experimental group and the control group completed an initial online CQ assessment. Then the experimental group gained access to and completed an online training program to understand their personalized CQ Profile and to develop a personalized action plan to improve CQ levels. Following the international missionary experience, both the control and experimental group completed another online CQ assessment to determine what changes, if any, in CQ levels occurred. A comparison of the data collected from the assessments both before and after the training intervention and international assignment provided the data for analysis in this research.

## Data Analysis

Analyzing the data compiled by a research study provides the foundation for determining the conclusions drawn from the work. The researcher used descriptive statistics to fully understand the impact of the independent variable on the dependent variables. The following

includes a detailed discussion of the variables used in this study as well as the data analysis related to the hypothesis testing of each of the four researched hypotheses.

**Variables used in the study.** The variables in this study include the dependent variable (Y) and an independent variable in the form of a training intervention (X). The one-criterion equation used for evaluation in this study was represented by $Y = bX + a$ (Salkind, 2013). The evaluation of the training intervention and its effects on the study participants' CQ levels included the use of a pre- and posttest CQ assessment using the 7-point ordinal CQS. Descriptive statistics provided the analytical tool for determining what changes, if any, occurred from the pre- and posttest data.

**Hypothesis 1.** Hypothesis 1 determined if cultural training related to CQ assessments prior to a cultural immersion experience has a statistically significant effect on CQ Drive. Previous research by Wood and St. Peters (2014) indicated that a cultural immersion experience significantly increases CQ Drive. Increased levels of CQ Drive improves the expatriate's ability to adjust to the new environment successfully and become satisfied with both the work and life in the new location (Huff, 2013). Therefore, determining if cultural training related to the CQ assessment significantly improves levels of CQ Drive along with the cultural immersion experience, such an intervention would result in improved worker satisfaction and decreased cost associated with failed expatriate assignments for organizations. Because these data relate not only to a test-retest scenario, but also a control experimental aspect, a two-way or factorial analysis of variance (ANOVA) proved most effective for providing the level of significance for the change in CQ Drive (Salkind, 2013).

**Hypothesis 2.** Hypothesis 2 included an analysis of the effects of a cultural training intervention on CQ Knowledge for an individual engaging in a cultural immersion experience. In

a previous study, CQ Knowledge improved as a result of a cultural immersion experience (Wood & St. Peters, 2014). Individuals with higher levels of CQ display improved task performance (Jyoti & Kour, 2015). Testing this hypothesis to determine if cultural training related to the CQ assessment along with a cultural immersion experience significantly improves CQ Knowledge, thus improving task performance and reducing the cost associated with expatriate failure for the organization. Using a factorial ANOVA for this analysis determined the test-retest reliability and control and experimental comparison for CQ Knowledge (Salkind, 2013).

**Hypothesis 3.** The potential for increases in the measures of CQ Strategy for individuals engaging in a cultural immersion experience and individualize cultural training represented Hypothesis 3. Wood and St. Peters (2014) found the impact on CQ Strategy levels for those engaging in a cultural immersion experience was significant. Increased CQ levels positively impact expatriate adjustment and job performance (Sambasivan et al., 2017). Increasing levels of CQ Strategy associated with a cultural training intervention and cultural immersion experience evidenced in the data provides the justification for such training as a manner of increasing job performance and reducing failure costs for international organizations. The two-way ANOVA verified both the test-retest and the control and experimental significance for CQ Strategy (Salkind, 2013).

**Hypothesis 4.** Measuring the impact of a cultural immersion experience and individualized cultural training intervention on the levels of CQ Action provided the analysis for Hypothesis 4. CQ Action levels proved to be unaffected by a cultural immersion experience (Wood & St. Peters, 2014). Overall increases in CQ levels indicate increased adjustment and work performance in expatriate employees (Jyoti & Kour, 2015). Introducing a cultural training intervention along with a cultural immersion experience to improve CQ Action and effect task

performance, worker adjustment, and expatriate costs prove beneficial for global companies looking to positively impact the organization. A factorial ANOVA provides the test and retest reliability and comparison analysis for the control and experimental groups for CQ Action (Salkind, 2013).

**Summary of data analysis.** The data analyzed for this research included pre- and posttest assessments related to the individual CQ of the study participant. Using a two-way or factorial ANOVA, the researcher performed an analysis of the significance of changes in each CQ measure for each individual in the control and experimental groups both before and after a training intervention and cultural immersion experience. The data regarding the training intervention, or independent variable, provided the figures for use in performing the descriptive statistics to test each hypothesis in this study.

## Reliability and Validity

In quantitative research, the reliability and validity of the study determine the rigor associated with the work (Heale & Twycross, 2015). Because of the various studies confirming the reliability and validity of the CQS, the assessment provides an objective source for measuring the cultural awareness of the individual (Kurpis & Hunter, 2016). The following section provides information regarding the reliability and validity of the CQS as it relates to this study.

**Reliability.** Reliability in quantitative studies refers to the consistency of results discovered using the same situation and repeated instances (Heale & Twycross, 2015). Cronbach's alpha remains the most familiar measure of internal consistency of any survey instrument (Heale & Twycross, 2015). Since the development of the CQS, investigators determined the scale reliability of CQ assessment range from $\alpha = 0.70$ to 0.86 (Ang et al., 2006;

Collins et al., 2016). With scores above the acceptable reliability level of 0.7 or higher, the reliability of the CQS proves consistent over time using various methods and locations (Heale & Twycross, 2015; Kurpis & Hunter, 2016).

**Validity.** In quantitative research, validity determines the degree the researcher accurately measures the theory observed in the study (Heale & Twycross, 2015). According to Matsumoto and Hwang (2013), because of the number of studies relating to CQ and the CQS including samples located in various geographic locations with reported alphas within the range of 0.70 and 0.80, significant evidence exists to establish the construct validity of the CQS. Initially, the four factors of CQ demonstrated both discriminant and convergent validity (Ang et al., 2007). Furthermore, using a sample of 286 people from 30 nations, researchers determined the convergent and discriminant validity of the subdimensions measured by the CQS (Van Dyne et al., 2012).

**Summary of reliability and validity.** As discussed, studies using the CQS determined that the CQS remained accurate across various samples, times, and locations (Eisenberg et al., 2013). Because of the significant amounts of research confirming the reliability and validity of the CQS, this assessment tool proved sufficient for use in this study to measure the CQ levels of the individual.

## Transition and Summary of Section 2

Section 2 encompassed a detailed overview of the research methodology and design used in this work. The researcher used a qualitative method with an experimental design to determine what effect, if any, a training intervention based on a personalized CQ analysis affected the CQ measurements of the individual. The population and sample size description was discussed, along with a detailed explanation of the data collection, organization, and analysis methods

utilized to complete this study. The CQS, created by Van Dyne et al. (2008), provided the cultural assessment tool with reliability and validity proven for the instrument through various research studies over time (Matsumoto & Hwang, 2013; Van Dyne et al., 2008).

## Section 3: Application to Professional Practice and Implications for Change

This section includes discussion regarding the impact of the study on the field of international business and provides some suggestions for future examination of the topic of CQ. The discussion encompasses data analysis relating to each of the hypotheses and relates these to the original research question. Additionally, the researcher offers suggestions for practical application and recommendations for improved international business performance as a result of the data analysis. Finally, this section concludes with the researcher's personal reflections along with the Biblical applications of this work.

### Overview of the Study

Because of the increased cost to international business firms when expatriate assignments fail (Ditchburn & Brook, 2015; Kassar et al., 2015), improving the potential for individual success provides organizational leadership an opportunity to mitigate risk regarding unsuccessful assignments. Research indicates that the four facets that comprise CQ can forecast an expatriate's ability for improved cultural adaptation, increased work performance and engagement, and greater work adjustment (Crowne, 2013; He, An, & Zhang, 2019; Puyod & Charoensukmongkol, 2019; Sharma & Hussain, 2019). This study seeks to determine what effect, if any, a training intervention might have on CQ levels of the individual.

This research utilized quantitative data collection in an experimental design method to gather data utilizing the CQS online assessment. Using this tool allows the researcher to quantify the CQ level of each participant before and after a training intervention and to analyze the data as

it relates to the research question and the resulting hypothesis. This study was conducted to add to the body of work relating to CQ and expatriate success.

By assessing each of the hypotheses, the findings of this research indicate that there is not a significant effect on any of the four components of CQ when including the time factors and the training intervention. Therefore, the research demonstrated that the training intervention did not have a statistically significant effect on the CQ measurements of the participants in this study.

## Presentation of the Findings

This section includes a detailed description of the findings of the study comprising response rates and hypothesis testing of all stated hypotheses. The researcher presents the statistical analysis performed for determining acceptance or rejection of each of the four assumptions along with supporting research to justify this analysis. This section concludes with a discussion of how each hypothesis relates to the original research question.

**Description of response rate.** The researcher obtained approval for this study with the Institutional Review Board (IRB) at Liberty University (see Appendix E). Respondents in this study included individuals planning to travel internationally for a previously scheduled mission assignment. Initial access to these individuals came from religious organizations and university representatives responsible for organizing such mission-related trips.

The response rate included the total number of individuals responding to the survey divided by the total number of potential respondents (Phillips, Reddy, & Durning, 2016). Initially, a combined total of 492 individuals were contacted from both religious and educational institutions with administrators willing to provide access to their participants. Of these people, an overall total of 103 participants completed Test 1 (T1), resulting in an initial response rate for T1 of 20.93%. After the participants returned from their scheduled mission assignments, the number

of individuals finishing Test 2 (T2) dropped to 58 participants which resulted in a response rate from T2 of 56.31%, or 58 of the 103 respondents from T1. Calculating an overall response rate yields 11.79%, or 58 out of 492 total possible participants. The data sets for participants who did not complete both T1 and T2 remained incomplete, and the researcher discarded these figures.

**Reliability and validity.** Concerning this study, the researcher calculated Cronbach's alpha for pretest and posttest numbers for the control, experimental, and combined sets of data. Analyzing the Cronbach's alpha calculation for each data set provides the foundation for determining if the population can accurately be represented by the sample size (Bujang, Omar, & Baharum, 2018). Table 1 shows the Cronbach's alpha scores for the experimental group at Time Periods 1 and 2. The score of .767 and .801 presented within the adequate range of .60–.80 (Kurpis & Hunter, 2016; Vaske, Beaman, & Sponarski, 2016).

Table 1

*Experimental Data Cronbach's Alpha*

| Reliability statistics | | |
|---|---|---|
| Cronbach's alpha T1 | Cronbach's alpha T2 | *N* of items |
| 0.767 | 0.801 | 4 |

Table 2 shows the Cronbach's alpha score for the control group at Time Periods 1 and 2 of .688 and .692, respectively. This value measures within the acceptable range (Heale & Twycross, 2015; Vaske et al., 2016).

Table 2

*Control Data Cronbach's Alpha*

| Reliability statistics | | |
|---|---|---|
| Cronbach's alpha T1 | Cronbach's alpha T2 | *N* of items |
| 0.688 | 0.692 | 4 |

Table 3 shows the Cronbach's alpha score for the combined data set of the control and experimental groups at Time Periods 1 and 2. The scores of .723 and .753 represent acceptable Cronbach's alpha score falling within the .60–.80 range (Collins et al., 2016; Vaske et al., 2016).

Table 3

*Combined Data Cronbach's Alpha*

| Reliability statistics | | |
|---|---|---|
| Cronbach's alpha T1 | Cronbach's alpha T2 | *N* of items |
| 0.723 | 0.753 | 4 |

**Variables.** The researcher sought to determine what effect, if any, a training intervention based on an individual CQ assessment has on CQ measures. In order to answer this research question, the researcher utilized both independent and dependent variables. Independent variables included the preexisting characteristics associated with the participants of a study (Salkind, 2013). The cultural immersion experience, training intervention, and pretest CQS results represented three independent variables as these identify or measure established traits associated with individuals participating in this study. Active independent variables comprise those given to the participants during the study (Salkind, 2013). The cultural immersion experience and training intervention denote active independent variables introduced in the study. Attribute independent variables include preexisting characteristics of the individual (Salkind, 2013). The pretest CQS results represent an attribute independent variable as the online CQS assessed the existing CQ measures of each participant prior to the cultural intervention.

Dependent variables measure the effects of the independent variables in the experiment (Salkind, 2013). In this study, the dependent variable includes the posttest CQS results for all the participants in this research. Variables can be further identified as nominal, ordinal, or scale (Salkind, 2013). Variables including two or more unordered items represent nominal variables

(Salkind, 2013). Since cultural immersion experience and training intervention refer to either a received or unreceived intervention, they both represent a nominal data type. Scale data includes numerical data that tends to normal distribution (Salkind, 2013). The online CQS utilizes a Likert scale model for assessing the individual (Van Dyne et al., 2008). Since this model includes a Likert scale assessment, the CQS results for both the pre- and posttest assessments represent scale data sets (Salkind, 2013). Table 4 displays a visual representation of the variables used in this study.

Table 4

*Variables Used in the Study*

| Variable | Variable type | Type of data |
|---|---|---|
| Cultural immersion experience | Active independent variable | Nominal |
| Training intervention | Active independent variable | Nominal |
| Pretest CQS results | Attribute independent variable | Scale |
| Posttest CQS results | Dependent variable | Scale |

In order to isolate effects of the training intervention, the researcher analyzed the change in each of the four components of CQ from Time Period 1 to Time Period 2 for the control and experimental groups. The presence of two or more independent variables in the pretest–posttest experimental design necessitates the use of the two-way factorial ANOVA (Cramer et al., 2016; Rouder, Engelhardt, McCabe, & Morey, 2016). The cultural immersion experience, training intervention, and pretest CQS represent independent variables. The posttest CQS results signify the dependent variable data set and represent the only data point potentially affected by the training intervention. Table 5 includes a textual representation of the factorial ANOVA design structure.

Table 5

*Factorial Design Structure*

| | | Cultural immersion experience (IV) | |
|---|---|---|---|
| | | Pretest | Posttest |
| Training Intervention (IV) | Control | CQS Results (IV) | CQS Results (DV) |
| | | -CQ Drive | -CQ Drive |
| | | -CQ Knowledge | -CQ Knowledge |
| | | -CQ Strategy | -CQ Strategy |
| | | -CQ Action | -CQ Action |
| | Experimental | CQS Results (IV) | CQS Results (DV) |
| | | -CQ Drive | -CQ Drive |
| | | -CQ Knowledge | -CQ Knowledge |
| | | -CQ Strategy | -CQ Strategy |
| | | -CQ Action | -CQ Action |

**Hypothesis testing.** The data analysis was performed using SPSS. When assessing the normality of the frequency distribution of the data set, the skewness and kurtosis range of +/-1 applies (Morgan, Leech, Gloeckner, & Barrett, 2013). As noted in Tables 6–8, all variables and time periods for the experimental, control, and combined data sets report within the range of +/-1 for skewness. The majority of the data also falls within the +/-1 range for kurtosis. Single data points that do not report within this range for kurtosis include the motivational factor at Time Period 2 for the experimental, control, and combined data sets.

Table 6

*Experimental Data Skewness and Kurtosis*

| | Statistics | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Sum Mot T1 | Sum Mot T2 | Sum Cog T1 | Sum Cog T2 | Sum MC T1 | Sum MC T2 | Sum Beh T1 | Sum Beh T2 |
| *N* | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| Skewness | 0.39 | -0.05 | -0.27 | 0.41 | -0.05 | -0.25 | 0.08 | -0.36 |
| Std. error of skewness | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| Kurtosis | -0.02 | -1.17 | 0.54 | -0.23 | -1.18 | -1.09 | -0.57 | -0.71 |
| Std. error of kurtosis | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |

*Note*. Sum Mot T1 = Sum Motivation T1; Sum Cog T1 = Sum Cognitive T1; Sum MC T1 = Sum Metacognitive T1; Sum Beh T1 = Sum Behavioral T1.

Table 7

*Control Data Skewness and Kurtosis*

| | Statistics | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Sum Mot T1 | Sum Mot T2 | Sum Cog T1 | Sum Cog T2 | Sum MC T1 | Sum MC T2 | Sum Beh T1 | Sum Beh T2 |
| *N* | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| Skewness | -0.14 | 0.29 | 0.28 | -0.24 | -0.28 | -0.49 | -0.44 | -0.29 |
| Std. error of skewness | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| Kurtosis | -0.35 | -1.22 | -0.58 | -0.06 | -0.58 | 0.02 | -0.33 | -0.60 |
| Std. error of kurtosis | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |

*Note*. Sum Mot T1 = Sum Motivation T1; Sum Cog T1 = Sum Cognitive T1; Sum MC T1 = Sum Metacognitive T1; Sum Beh T1 = Sum Behavioral T1.

Table 8

*Combined Data Skewness and Kurtosis*

| | Statistics | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Sum Mot T1 | Sum Mot T2 | Sum Cog T1 | Sum Cog T2 | Sum MC T1 | Sum MC T2 | Sum Beh T1 | Sum Beh T2 |
| *N* | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Skewness | 0.07 | 0.11 | 0.07 | 0.09 | -0.20 | -0.32 | -0.18 | -0.35 |
| Std. error of skewness | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 |
| Kurtosis | -0.26 | -1.22 | -0.22 | -0.17 | -0.77 | -0.65 | -0.56 | -0.63 |
| Std. error of kurtosis | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 |

*Note*. Sum Mot T1 = Sum Motivation T1; Sum Cog T1 = Sum Cognitive T1; Sum MC T1 = Sum Metacognitive T1; Sum Beh T1 = Sum Behavioral T1.

Looking further into the normality of the data, the researcher calculated the Kolmogorov-Smirnov and Shapiro-Wilk results for the experimental, control, and combined data sets. As shown in Tables 9–11, the majority of the significance levels for both the Kolmogorov-Smirnov and Shapiro-Wilk for each variable and time period for the experimental, control, and combined data sets indicate normal distribution with significance values above .05.

Table 9

*Experimental Data Kolmogorov-Smirnov and Shapiro-Wilk*

| Tests of normality | | | | | | |
|---|---|---|---|---|---|---|
| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
| | Statistic | *df* | Sig. | Statistic | *df* | Sig. |
| SumMotT1 | 0.13 | 29.00 | .200* | 0.96 | 29.00 | 0.30 |
| SumMotT2 | 0.15 | 29.00 | 0.11 | 0.95 | 29.00 | 0.17 |
| SumCogT1 | 0.17 | 29.00 | 0.03 | 0.96 | 29.00 | 0.42 |
| SumCogT2 | 0.11 | 29.00 | .200* | 0.97 | 29.00 | 0.55 |
| SumMCT1 | 0.18 | 29.00 | 0.02 | 0.93 | 29.00 | 0.07 |
| SumMCT2 | 0.12 | 29.00 | .200* | 0.95 | 29.00 | 0.17 |
| SumBehT1 | 0.17 | 29.00 | 0.04 | 0.96 | 29.00 | 0.28 |
| SumBehT2 | 0.09 | 29.00 | .200* | 0.96 | 29.00 | 0.33 |

*Note*. Sum Mot T1 = Sum Motivation T1; Sum Cog T1 = Sum Cognitive T1; Sum MC T1 = Sum Metacognitive T1; Sum Beh T1 = Sum Behavioral T1.
[a]Lilliefors significance correction.
*This is the lower bound of true significance.

Table 10

*Control Data Kolmogorov-Smirnov and Shapiro-Wilk*

| Tests of normality | | | | | | |
|---|---|---|---|---|---|---|
| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
| | Statistic | *df* | Sig. | Statistic | *df* | Sig. |
| SumMotT1 | 0.10 | 29.00 | .200* | 0.97 | 29.00 | 0.70 |
| SumMotT2 | 0.20 | 29.00 | 0.00 | 0.92 | 29.00 | 0.04 |
| SumCogT1 | 0.12 | 29.00 | .200* | 0.98 | 29.00 | 0.77 |
| SumCogT2 | 0.08 | 29.00 | .200* | 0.98 | 29.00 | 0.93 |
| SumMCT1 | 0.09 | 29.00 | .200* | 0.98 | 29.00 | 0.82 |
| SumMCT2 | 0.11 | 29.00 | .200* | 0.98 | 29.00 | 0.73 |
| SumBehT1 | 0.14 | 29.00 | 0.13 | 0.94 | 29.00 | 0.12 |
| SumBehT2 | 0.14 | 29.00 | 0.18 | 0.95 | 29.00 | 0.19 |

*Note*. Sum Mot T1 = Sum Motivation T1; Sum Cog T1 = Sum Cognitive T1; Sum MC T1 = Sum Metacognitive T1; Sum Beh T1 = Sum Behavioral T1.
[a]Lilliefors significance correction.
*This is a lower bound of the true significance.

Table 11

*Combined Data Kolmogorov-Smirnov and Shapiro-Wilk*

| Tests of normality | | | | | | |
|---|---|---|---|---|---|---|
| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
| | Statistic | *df* | Sig. | Statistic | *df* | Sig. |
| SumMotT1 | 0.11 | 58.00 | 0.07 | 0.98 | 58.00 | 0.35 |
| SumMotT2 | 0.16 | 58.00 | 0.00 | 0.94 | 58.00 | 0.01 |
| SumCogT1 | 0.10 | 58.00 | .200* | 0.99 | 58.00 | 0.82 |
| SumCogT2 | 0.07 | 58.00 | .200* | 0.99 | 58.00 | 0.77 |
| SumMCT1 | 0.11 | 58.00 | 0.09 | 0.97 | 58.00 | 0.11 |
| SumMCT2 | 0.08 | 58.00 | .200* | 0.97 | 58.00 | 0.15 |
| SumBehT1 | 0.13 | 58.00 | 0.02 | 0.96 | 58.00 | 0.05 |
| SumBehT2 | 0.10 | 58.00 | .200* | 0.96 | 58.00 | 0.04 |

*Note*. Sum Mot T1 = Sum Motivation T1; Sum Cog T1 = Sum Cognitive T1; Sum MC T1 = Sum Metacognitive T1; Sum Beh T1 = Sum Behavioral T1.
[a]Lilliefors significance correction.
*This is a lower bound of the true significance.

Because each hypothesis was intended to evaluate the difference in both time period and control and experimental groups, a two-way or factorial ANOVA proved most effective (Rouder et al., 2016). The ANOVA represents a robust analysis tool that is less affected by any outliers in skewness (Morgan et al., 2013). Therefore, the few outliers identified in the skewness and kurtosis analysis do not affect the analysis results in a significant manner.

***Hypothesis 1.*** Hypothesis 1 was focused on discovering if a significant difference exists for CQ Drive for individuals in the control and experimental groups between Time Period 1 and Time Period 2.

$H_a1$: There is a greater statistically significant effect on CQ Drive for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

$H_01$: There is no statistically significant effect on CQ Drive for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

To assess both the time difference as well as the intervention effects on the control and experimental groups, a two-way ANOVA was conducted for CQ Drive or motivation. Table 12 shows the ANOVA output data related to Variable 1, CQ Drive. According to the output data, there is no significant interaction between the time and training intervention for motivation or CQ Drive, $F(1,56) = .49$ and $p = .49$. Therefore, the researcher accepted the null hypothesis that there is no significant effect on CQ Drive for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

The results related to Hypothesis 1 indicated that there is no statistically significant effect on CQ Drive for an individual who receives cultural training related to a personalized CQ assessment prior to a cultural immersion experience. Testing the CQ Drive element of CQ aids in answering the research question relating to what effect, if any, a training intervention based on an individual CQ assessment might have on CQ measurements. Because of the importance of CQ to positively impact cultural adjustment, work performance and engagement, and work adjustment, understanding the effects of the training intervention on the aspect of CQ Drive provides additional information to aid managers as they prepare workers for international assignments (Crowne, 2013; He et al., 2019; Puyod & Charoensukmongkol, 2019; Sharma & Hussain, 2019).

Table 12

*ANOVA Results for CQ Drive or Motivation*

| Tests of between-subjects effects | | | | | | |
|---|---|---|---|---|---|---|
| Dependent variable: CQ drive/motivation | | | | | | |
| Source | Type III sum of squares | *df* | Mean square | *F* | Sig. | Partial eta squared |
| Corrected model | 7.603[a] | 1 | 7.603 | 0.49 | 0.49 | 0.009 |
| Intercept | 23.603 | 1 | 23.603 | 1.51 | 0.22 | 0.026 |
| Group | 7.603 | 1 | 7.603 | 0.49 | 0.49 | 0.009 |
| Error | 873.793 | 56 | 15.603 | | | |
| Total | 905 | 58 | | | | |
| Corrected total | 881.397 | 57 | | | | |

[a]Dependent variable: DiffMotSum.

***Hypothesis 2.*** The second hypothesis was focused on determining if there is a significant difference in CQ Knowledge between time periods 1 and 2 for individuals receiving cultural intelligence training.

$H_a2$: There is a greater statistically significant effect on CQ Knowledge for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

$H_02$: There is no statistically significant effect on CQ Knowledge for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

Assessing the changes in time period as well as the control and experimental group differences required an ANOVA analysis tool relating to CQ Knowledge or the cognitive factor of CQ. Reviewing the output data in Table 13, the researcher determined there was no significant interaction between the training intervention for the time periods related to CQ Knowledge,

$F(1,56) = .2$, and $p = .65$. As a result, the researcher accepted the null that there is no statistically significant effect on CQ Knowledge for individuals who receive a cultural training intervention prior to a cultural immersion experience.

The results related to Hypothesis 2 indicated that there is no statistically significant effect on CQ Knowledge for an individual who receives cultural training related to a personalized CQ assessment prior to a cultural immersion experience. Testing the CQ Knowledge aspect of CQ aids in answering the research question relating to what effect, if any, a training intervention based on an individual CQ assessment might have on CQ measurements. As previously noted, CQ to positively impact cultural adjustment, task performance, and job satisfaction (Bücker et al., 2014; Jyoti & Kour, 2015). Understanding the effects of the training intervention on the aspect of CQ Knowledge provides additional information to guide leadership when determining effective strategies to improve expatriate performance.

Table 13

*ANOVA Results for CQ Knowledge or Cognitive*

| Tests of between-subjects effects | | | | | | |
|---|---|---|---|---|---|---|
| Dependent variable: CQ Knowledge/cognitive | | | | | | |
| Source | Type III sum of squares | *df* | Mean square | *F* | Sig. | Partial eta squared |
| Corrected model | 18.776[a] | 1 | 18.776 | 0.2 | 0.65 | 0.004 |
| Intercept | 796.983 | 1 | 796.98 | 8.64 | 0.01 | 0.134 |
| Group | 18.776 | 1 | 18.776 | 0.2 | 0.65 | 0.004 |
| Error | 5163.24 | 56 | 92.201 | | | |
| Total | 5979 | 58 | | | | |
| Corrected total | 5182.02 | 57 | | | | |

[a]Dependent variable: DiffCogSum.

***Hypothesis 3.*** Hypothesis 3 was used to determine if a significant difference exists for CQ Strategy between Time Periods 1 and 2 for both the control and experimental groups.

$H_a3$: There is a greater statistically significant effect on CQ Strategy for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

$H_03$: There is no statistically significant effect on CQ Strategy for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

Assessing CQ Strategy or the metacognitive factor of CQ related to both the time and training intervention necessitated the use of a factorial ANOVA. As shown in Table 14, the data indicated that there was no significant difference between the control and experimental groups at time periods 1 and 2, $F(1,56) = .39$ and $p = .53$. Subsequently, the researcher accepted the null hypothesis that there is no statistically significant effect on CQ Strategy for individuals receiving CQ training prior to a cultural immersion experience.

The results related to Hypothesis 3 indicated that there is no statistically significant effect on CQ Strategy for an individual who receives cultural training related to a personalized CQ assessment prior to a cultural immersion experience. Testing the CQ Strategy aspect of CQ aids in answering the research question relating to what effect, if any, a training intervention based on an individual CQ assessment might have on CQ measurements. Researchers have determined that CQ positively effects expatriate success by reducing stress, causing less mental fatigue, and facilitating cultural interactions (Bücker et al., 2014; Jyoti & Kour, 2015). By presenting the effects of the training intervention on the aspect of CQ Strategy, the researcher provides

additional information to help business leaders determine new strategies for increasing the potential for expatriate assignment success.

Table 14

*ANOVA Results for CQ Strategy or Metacognitive*

| Tests of between-subjects effects | | | | | | |
|---|---|---|---|---|---|---|
| Dependent variable: CQ Strategy/metacognitive | | | | | | |
| Source | Type III sum of squares | *df* | Mean square | *F* | Sig. | Partial eta squared |
| Corrected model | 9.121[a] | 1 | 9.121 | 0.39 | 0.53 | 0.007 |
| Intercept | 182.914 | 1 | 182.91 | 7.9 | 0.01 | 0.124 |
| Group | 9.121 | 1 | 9.121 | 0.39 | 0.53 | 0.007 |
| Error | 1296.97 | 56 | 23.16 | | | |
| Total | 1489 | 58 | | | | |
| Corrected total | 1306.09 | 57 | | | | |

[a]Dependent variable: DiffMCSum.

***Hypothesis 4.*** The final hypothesis relates to the possible significant difference in CQ Action between Time Periods 1 and 2 for individuals in the control and experimental groups.

$H_a4$: There is a statistically significant effect on CQ Action for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

$H_04$: There is no statistically significant effect on CQ Action for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

Table 15 shows the ANOVA analysis that assesses the two different time periods as well as the control and experimental groups. In this instance, the results present a mixed interpretation that should be viewed cautiously, $F(1,56) = .01$ (significant) and $p = .91$ (not significant)

(Morgan et al., 2013). Based on the data analysis, the researcher determined that there is no significant effect on CQ Action or behavioral CQ between Time Period 1 and 2 for the control and experimental groups. As a result, the researcher accepted the null hypothesis and determined that there is no statistically significant effect on CQ Action for individuals who receive cultural training prior to a cultural immersion experience.

The results related to Hypothesis 4 indicated that there is no statistically significant effect on CQ Action for an individual who receives cultural training related to a personalized CQ assessment prior to a cultural immersion experience. Testing the CQ Action aspect of CQ aids in answering the research question relating to what effect, if any, a training intervention based on an individual CQ assessment might have on CQ measurements. Because of the importance of CQ to positively impact cultural adaptation, work performance and engagement, and improved employment adjustment, understanding the effects of the training intervention on the aspect of CQ Action provides supporting research to guide managers as they prepare employees for expatriate work experiences (Crowne, 2013; He et al., 2019; Puyod & Charoensukmongkol, 2019; Sharma & Hussain, 2019).

Table 15

*ANOVA Results for CQ Action or Behavioral*

| Tests of between-subjects effects | | | | | | |
|---|---|---|---|---|---|---|
| Dependent variable: CQ Action/behavioral | | | | | | |
| Source | Type III sum of squares | *df* | Mean square | *F* | Sig. | Partial eta squared |
| Corrected model | .845[a] | 1 | 0.845 | 0.01 | 0.91 | 0 |
| Intercept | 458.086 | 1 | 458.09 | 7.19 | 0.01 | 0.114 |
| Group | 0.845 | 1 | 0.845 | 0.01 | 0.91 | 0 |
| Error | 3570.07 | 56 | 63.751 | | | |
| Total | 4029 | 58 | | | | |
| Corrected total | 3570.91 | 57 | | | | |

[a]Dependent variable: DiffBehSum.

**Relationship of hypothesis to research question.** The research question from this study asked what effect, if any, a training intervention based on an individual CQ assessment might have on CQ measurements. Using a factorial ANOVA analysis to perform statistical calculations, the researcher gained a broad understanding of the effects of the training intervention on the experimental group and can now answer the research question. Based on the results of the analysis, the researcher determined that there is no statistically significant effect on each of the four components of CQ between Time Periods 1 and 2 for the control or experimental group. Therefore, the researcher determined that the training intervention had no statistically significant effect on the cultural measurements of the individual participants in the study.

As the research question specifically addressed what effect, if any, a training intervention based on an individual CQ assessment might have on the various measures of CQ, the researcher analyzed each component of CQ individually. The researcher concluded that no statistically

significant difference occurred from Time Periods 1 and 2 for the control and experimental groups when analyzing CQ Drive, Knowledge, Strategy, or Action within the parameters of the online CQS. Therefore, the researcher accepted the four null hypotheses stating that there is no statistically significant effect on cultural motivation, cognitive, metacognitive, or behavioral aspects for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

**Summary of findings.** The cost of failed expatriate assignments remains a challenge for international business managers in the current global market (Ditchburn & Brook, 2015; Josien, 2012; Kassar et al., 2015). Leaders who understand and mitigate against such loss offer a competitive advantage for the firm. Workers who excel in the four components of CQ increase the potential for successful expatriate assignments due to an increased ability to adapt and adjust effectively within a new cultural environment (He et al., 2019; Sharma & Hussain, 2019). Training relating to culture provides an opportunity for managers to increase cultural awareness and cultural assimilation (Caligiuri et al., 2001). The research question related to this study was intended to determine what effect, if any, a training intervention based on an individual CQ assessment have on CQ measurements.

In order to answer this research question, the researcher developed and analyzed four hypotheses related to the four components of CQ; Drive, Knowledge, Strategy and Action. Each hypothesis sought to determine if there is a greater statistically significant effect on each element of CQ for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience. Each of the four null hypotheses refers to no statistically significant effect on each of the elements of CQ for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience. The researcher used a factorial ANOVA to

analyze each of the four components of CQ from Time Period 1 to Time Period 2 for both a control and experimental group (Salkind, 2013).

The results of the study revealed that CQ training does not impact individual CQ measures. Based on the analysis of Hypothesis 1, there is no significant interaction between the time and training intervention for motivation or CQ Drive, $F(1,56) = .49$ and $p = .49$. As a result, the researcher accepted the null hypothesis that there is no statistically significant effect on CQ Drive for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience. Related to Hypothesis 2, the researcher determined there was no significant interaction between the training intervention for the two time periods related to the cognitive factor of CQ or CQ Knowledge, $F(1,56) = .2$, and $p = .65$. This finding resulted in the acceptance of the null hypothesis that there is no statistically significant effect on CQ Knowledge for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

Continuing with the results of the study referring to Hypothesis 3, the analysis indicated that there was no statistically significant difference between the control and experimental groups at Time Periods 1 and 2 when analyzing the component related to metacognitive skills or CQ Strategy, $F(1,56) = .39$ and $p = .53$. Therefore, the researcher again accepted the null hypothesis that there is no statistically significant effect on CQ Strategy for individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience. Based on the analysis of Hypothesis 4 relating to the behavioral aspect of CQ or CQ Action, the research indicated a mixed interpretation, $F(1,56) = .01$ (significant) and $p = .91$ (not significant). While this mixed result must be thoughtfully interpreted (Morgan et al., 2013), the researcher accepted the null and determined that there is no statistically significant effect on CQ Action for

individuals who receive cultural training related to CQ assessments prior to a cultural immersion experience.

The study provides statistical evidence that none of the four components of CQ were significantly affected by the training intervention from Time Periods 1 and 2 for the experimental and control groups. Based on this data, the researcher determined that online cultural training utilizing the CQS proves ineffective for impacting CQ measures for an individual. As a result of this finding, the researcher advises international business leadership to search for more impactful methods of increasing cultural awareness in expatriate employees that prove effective and offer significant return on investment.

**Applications to Professional Practice**

This research adds to the body of knowledge for culture, CQ, expatriate success, and cross-cultural training. The study was specifically focused on short-term missionary workers that were scheduled for an overseas missionary assignment and the impact that CQ training might have on the individual. This study relied on the theoretical framework of culture and cultural awareness provided by Hofstede along with the CQ theory developed by Early and Ang (Ang et al., 2006; Mazanec et al., 2015). CQ researchers previously indicated that the four aspects of CQ can predict increased cultural adaptation, improved work performance, and heightened worker adjustment and engagement (Crowne, 2013; He et al., 2019; Puyod & Charoensukmongkol, 2019; Sharma & Hussain, 2019). This research was intended to determine if cultural training related to the CQS could significantly impact CQ measures.

This study determined that CQ training based on the CQS does not have a significant impact on any of the four aspects of CQ. Since the findings indicate that individualized online CQ training does not significantly impact an individual's CQ measures for CQ Drive,

Knowledge, Strategy or Action, the researcher recommends that managers responsible for the expatriation process within organizations do not add such programs as part of the strategy of selection or training expatriate workers and focus on other methods of increasing cultural awareness that more directly impact the bottom line.

**Biblical Application**

Christian managers leading in organizations today hold a duty to employees to recognize and realize potential while performing meaningful work (Van Duzer, 2010). As Paul wrote to the Corinthians, the body of believers includes those with diverse skills working for the good of all of the community of Christians (1 Corinthians 12:1-11). To aid workers in recognizing full potential and utilizing skills to the greater purpose of the community of believers, Christian business leaders must identify the expertise of cultural awareness and cultural knowledge as exceptional talents to be developed. By focusing on the cultural experiences and cultural interest of the individual, a believing manager recognizes the potential in the worker and aids the employee in contributing unique skills to the Christian body of believers.

A Christian manager is also responsible for the appropriate allocation of resources to benefit both investors and employees (Keller & Alsdorf, 2012). One of the many resources available to business leaders includes their workforce and the talents and skills that each individual possesses. An aspect of effective Christian business leadership includes identifying the strengths of the employee and aiding the worker in discovering value in the work achieved (Van Duzer, 2010). Cultural experience and cultural interests represent abilities that the worker can develop and that Christian business leaders can utilize as resources that bring benefit to both the employee and the organization.

Creating a profit that adds value in the form of a good or service within the marketplace offers Christian business executives an opportunity to generate wealth in the local community (Eldred, 2005). Relating the parable of the talents expressed by Jesus in the book of Matthew, members of the Christian community must invest the skills and abilities they possess in the present to increase wealth for the future (Matthew 25:14-30). Viewing cultural experience and awareness as a talent to develop, Christian business leaders capitalize on the skills of the worker and build prosperity for the future within the local area. Moreover, one of the goals of Christian executives includes making a profit which can improve the local living conditions and generate wealth in the region (Eldred, 2005). Identifying the skills of CQ for international business employees can enhance the effectiveness of the worker, the success of the organization, and the prosperity within the local area.

**Recommendations for Action**

As noted, this research failed to determine that personalized online training based on the CQS impacted any of the four factors of CQ. As the online training proved ineffective, the researcher does not recommend that such online instruction related to the CQS be included in the predeparture training required for an expatriate when moving to a new location. Organizational leadership must examine resources and determine what other manners and methods for training expatriate workers seem most appropriate for the business and offer an effective method for mitigating the risk of failed expatriate assignments.

**Recommendations for Further Study**

As this study relied on college students, the sample population included a majority of young people. Replicating this study using a larger sample population, including different age groups, would provide a greater understanding to the effectiveness of the training offered for a

more diverse sample of the population. This study was also focused on the missionary population, which has been shown to have more intrinsic motivation for successfully adapting to a new cultural environment (Presbitero, 2017). Widening the study population to include participants not focused solely on a mission purpose would broaden the understanding of the online cultural training methods used in this study as they relate to more diverse sample populations.

Research demonstrates that the population of international students attending school at American universities remains at a 4% level (Cho & Yu, 2014), Since national diversity of American university students remains low, the results of the current study lack significant representation from those born in countries outside the United States. As noted in previous studies including workers from international locations, cultural training has impacted the CQ levels of participants from European, Asian, and African nations (Abdien & Jacob, 2018; Bücker & Korzilius, 2015; Chen, 2015; Mayer et al., 2016). While each of these previous studies did not utilize online training methods, reproducing this study using participants born within other nations could deliver a broader understanding of the effects of the online training program from an international perspective.

While the results of this study did not substantiate the use of online training relative to the CQS, further research in the area of practical cross-cultural training presents a possibility for consideration. Previous studies indicate that the most effective training relating to culture includes experiential teaching methods tailored to the employee (Feitosa et al., 2014; Lenartowicz et al., 2014). Developing an experimental project using multiple training methods tailored to the employee rather than an online personalized training should be explored.

**Reflections**

The research process includes many challenging phases that can result in a delay during the development of the finalized product. Related to this study, motivating the sample population of missionary workers to engage in the assessments proved the most challenging aspect of data collection and initiated a significant time delay that plagued the project. Because of the perception of intrinsic motivation inherent in the sample population (Presbitero, 2017), the researcher did not expect this interruption and did not prepare for the suspension in progress.

The researcher possesses a strong training background, having facilitated training in various formats for over 20 years and in organizational settings for almost a decade. Because of this personal experience, the researcher possesses first-hand knowledge regarding benefits of training to both the individual and the organization. The researcher designed a study that allowed for limited interaction with participants, standardization of training, and controlled self-reporting by the individual, all intending to limit the influence of the researcher.

The study participants remained anonymous to the observer and never interacted with the researcher during the process of the study or analysis. Moreover, the participants voluntarily engaged in the online CQ assessments at their leisure. As a result, the study participants remained uninfluenced by the researcher. While the researcher anticipated results that differed from the actual outcomes, the analysis contained an unbiased review and interpretation of the statistical data. The researcher did not seek data or include or exclude elements that would confirm the research question or hypotheses.

The importance of this work within the Christian community remains an essential element of this study that remained reinforced by the research results. As Christian business leaders retain the task of aiding employees in finding work that is meaningful for the worker and

beneficial to society (Keller & Alsdorf, 2012), cultural awareness and cultural experience offer the Christian manager an opportunity to engage workers and build skills that positively contribute to organizational success. Aligning employees who have cultural experience with appropriate positions within an international organization allows Christian executives to discover and develop talents to benefit the worker, the business, and the local area.

**Summary and Study Conclusions**

Section 3 encompassed the study analysis and provided recommendations and suggestions regarding the study results. The outcomes indicate that there was no statistically significant change in any of the four components of CQ from Time Period 1 to Time Period 2 for the experimental group that received a training intervention. Based on these results, the online training intervention proved ineffective in affecting the four components of CQ and cannot be recommended.

Failed expatriate assignments represent a significant cost for international businesses and offer an opportunity for organizational leaders to impact the bottom line by mitigating such risks substantially. Studies regarding CQ signal that improving elements of CQ impact the ability of the worker to adapt, perform, engage, and adjust within a new cultural environment (Crowne, 2013; He et al., 2019; Puyod & Charoensukmongkol, 2019; Sharma & Hussain, 2019). Effective cultural training provides the worker with an increased ability to adapt to the local environment and begin to feel more comfortable in the new culture (Kassar et al., 2015). Combining these aspects, the researcher sought to determine if individualized cultural training could affect the CQ levels of the participant.

The researcher designed a quantitative study using an experimental design to determine if the training intervention had any effects on the four elements of CQ. Utilizing the online CQS,

the researcher gathered data relating to each participant's measures of CQ both before and after a scheduled missionary assignment. The randomly selected control group did not experience a training intervention while the experimental group received access to the training.

The researcher used statistical analysis tools to determine that there was no significant change to any of the four factors of CQ from Time Periods 1 and 2 and between the control and experimental groups. Therefore, the researcher accepted the null for each hypothesis and determined that there was no statistically significant change for CQ Drive, Knowledge, Strategy, and Action for individuals receiving cultural training prior to a cultural immersion experience. Based on the outcome of this study, the researcher does not recommend organizational leaders focus on online training methods based on the CQS to improve the four aspects of CQ. International business managers must develop other strategies of training expatriate workers that prove effective in increasing cultural awareness and assimilation for the worker and significantly reducing the impact of failed expatriate assignments for the organization.

This research added to the body of work in the areas of culture, CQ, expatriate success, and cross-culture training. This study academically enriched the field of CQ and filled the gap regarding the effectiveness of personalized cultural training related to the elements of CQ. This work closed the gap in international business related to training methods meant to aid expatriate adjustment and effectiveness to mitigate the costs of failed expatriate assignments.

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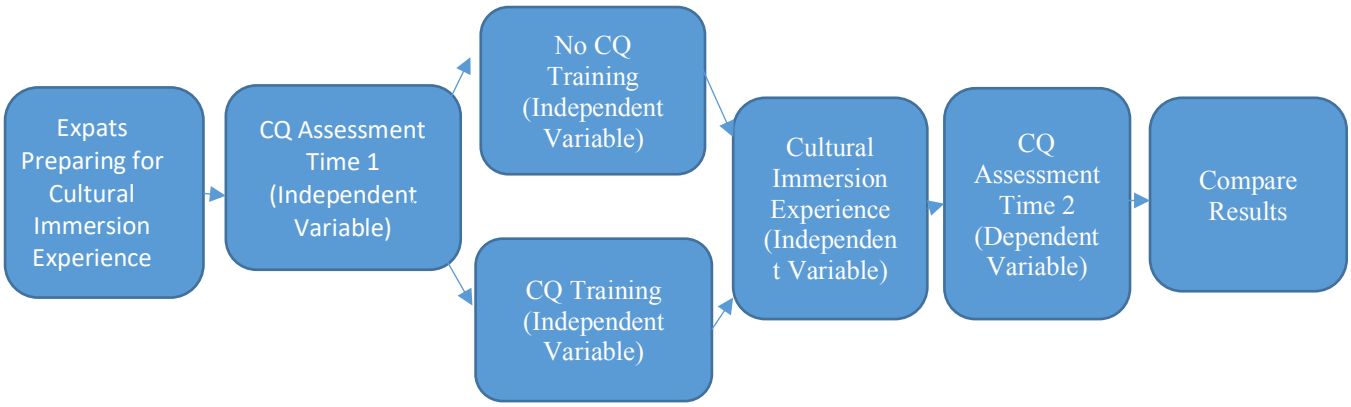
**Appendix A: Relationship Between Theory and Variables**



## Appendix B: Documentation of Permission

Keyla Waslawski <k n>
Tue 2/6, 11:11 PMFisher, Mykka;Linn Van Dyne
Inbox

Hello Mykka,
Thank you for following up with me using your university email address. Your study sounds very interesting.
You have our permission to use our copyrighted E-CQS survey in your research aimed at publication in scholarly journals.
There are two easy ways you can do this.
1) We offer on-line assessments that provide personal feedback reports to participants. This provides them with an incentive to participate in your research because the reports allow people to compare their CQ scores with the world-wide norms. The feedback reports also include questions to guide interpretation of results and creation of personal development plans. We offer highly discounted prices to academic researchers and students can pay by credit card before doing the assessment or we can invoice you for assessments after they are completed. We can also provide you with an xls file with individual participant responses to the CQ items that you can use in your research. I can give you more information (pricing, set up, etc.) on these programs if you are interested. Please let me know.
2) You can create your own survey using the 37 items in the E-CQS (see the attached file). If you do this, be sure to include the following copyright information on all electronic and paper copies of the survey:

© Cultural Intelligence Center 2014. Used by permission of Cultural Intelligence Center.
Note. Use of this scale granted to academic researchers for research purposes only.
For information on using the scale for purposes other than academic research (e.g., consultants and non-academic organizations), please send an email to info@culturalq.com

Please remember this is a copyrighted scale and I am making it available to you ONLY for scholarly research aimed at publication in academic journals. Should you decide you want to use the scale for consulting or program evaluation in the future, please contact me to make the necessary arrangements.
In addition, please remember that you should only use the 1-7 Likert scales responses in research and research papers/presentations because the world-wide norms and the 1-100 scores are proprietary.
For the scoring, you should average the items for each sub-dimension and then average the sub-dimensions to create average scores for the four factors. You can then use the four score or the scores for the subdimensions in your statistical analysis.

We wish you the best with your research. Please share your results with us so that we can learn from you

## Appendix C: CQS Questions

**E-CQS (Expanded Cultural Intelligence Scale) © [1]**

Instructions: Read each statement and select the response that best describes your capabilities relative to those of your peers.
Select the answer that BEST describes you AS YOU REALLY ARE (1=strongly disagree; 7=strongly agree)

Motivational CQ

| | |
|---|---|
| Intrinsic Motivation | I truly enjoy interacting with people from different cultures. |
| Intrinsic Motivation | I thrive on the differences in cultures that are new to me |
| Intrinsic Motivation | Given a choice, I prefer work groups composed of people with different (rather than similar) cultural backgrounds. |
| Extrinsic Motivation | I value the status I would gain from living or working in a different culture. |
| Extrinsic Motivation | Given a choice, I value the tangible benefits (pay, promotion, perks) of an intercultural rather than a domestic role. |
| Extrinsic Motivation | I value the reputation I would gain from developing global networks and connections. |
| Self-Efficacy to Adjust | I am confident that I can persist in coping with living conditions in different cultures. |
| Self-Efficacy to Adjust | I am sure I can deal with the stresses of interacting with people from cultures that are new to me. |
| Self-Efficacy to Adjust | I am confident I can socialize with locals in a culture that is unfamiliar to me. |

Cognitive CQ [2]

| | |
|---|---|
| Culture General Knowledge | I can describe the different cultural value frameworks that explain behaviors around the world. |
| Culture General Knowledge | I can describe similarities and differences in legal, economic, and political systems across cultures. |
| Culture General Knowledge | I can describe differences in kinship systems and role expectations for men and women across cultures |
| Culture General Knowledge | I can describe different views of beauty and aesthetics across cultural settings. |
| Culture General Knowledge | I can speak and understand many languages. |
| Context-Specific Knowledge | I can describe the ways that leadership styles differ across cultural settings. |
| Context-Specific Knowledge | I can describe how to put people from different cultures at ease. |
| Context-Specific Knowledge | I can describe effective negotiation strategies across different cultures. |
| Context-Specific Knowledge | I can describe different ways to motivate and reward people across cultures. |
| Context-Specific Knowledge | I can describe effective ways for dealing with conflict in different cultures. |

**E-CQS (Expanded Cultural Intelligence Scale) (continued) ©**

Metacognitive CQ

| | |
|---|---|
| Planning | I develop action plans before interacting with people from a different culture. |
| Planning | I think about possible cultural differences before meeting people from other cultures. |
| Planning | I ask myself what I hope to accomplish before I meet with people from different cultures. |
| Awareness | I am aware of how my culture influences my interactions with people from different cultures. |
| Awareness | I pay attention to how cultural aspects of the situation influence what is happening in that situation. |
| Awareness | I am conscious of how other people's culture influences their thoughts, feelings, and actions. |
| Checking | I adjust my understanding of a culture while I interact with people from that culture. |
| Checking | I double check the accuracy of my cultural knowledge during intercultural interactions. |
| Checking | I update my cultural knowledge after a cultural misunderstanding. |

Behavioral CQ

| | |
|---|---|
| Verbal Behavior | I change my use of pause and silence to suit different cultural situations. |
| Verbal Behavior | I vary my verbal behaviors (accept, tone, rate of speaking) to fit specific cultural contexts. |
| Verbal Behavior | I modify the amount of warmth I express to fit the cultural context. |
| Non-Verbal Behavior | I modify how close or far apart I stand when interacting with people from different cultures. |
| Non-Verbal Behavior | I change my non-verbal behaviors (hand gestures, head movements) to fit the cultural situation. |
| Non-Verbal Behavior | I vary the way I greet others (shake hands, bow, nod) when in different cultural contexts. |
| Speech Acts | I modify the way I disagree with others to fit the cultural setting. |
| Speech Acts | I change how I make requests of others depending on their cultural background. |
| Speech Acts | I vary the way I show gratitude (express appreciation, accept compliments) based on the cultural context. |



For more information, see Van Dyne, L., Ang, S., Ng, K.Y., Rockstuhl, T., Tan, M. L. & Koh, C. (2012). Subdimensions of the four factor model of cultural intelligence: Expanding the conceptualization and measurement of cultural intelligence. *Social and Personality Psychology Compass*, 6/4, 295-313. See also http://culturalq.com

[2] Additional information on the Subdimensions of Cognitive CQ:

Cognitive CQ includes 1) culture-general knowledge – declarative knowledge of the major elements that constitute the cultural environment; and 2) context-specific knowledge - declarative knowledge of how cultural universals are manifested in a specific domain and procedural knowledge of how to be effective in that domain.

*Culture-general knowledge* is defined as knowledge of the universal elements that constitute a cultural environment. Understanding the general elements that characterize culture is important because it provides people with an organizing framework for thinking about possible ways that cultures might be similar and different.

*Context-specific knowledge* is defined as declarative knowledge about manifestations of cultural universals in a specific domain and procedural knowledge about how to be effective in that domain. A domain could refer to a specific cultural context such as a particular country or part of the world, as emphasized in area studies. A domain could also refer to a specific subculture such as business managers, diplomats, peacekeeping forces, educators, or demographic subgroups based on gender, age, education, etc.. Given our interest in organizational contexts, we focused specifically on context-specific knowledge of effective management practices across cultural contexts. Future research can include context-specific knowledge for other subgroups.

## Appendix D: CQS Demographic Questions

Keyla Waslawski <k n>
Wed 2/21, 6:23 PMFisher, Mykka

Hi Mykka,

I have added two complimentary assessments to your dashboard.

Demographic questions are listed below. We have limited capabilities to modify demographic information only. We do not change the CQ items themselves. What types of changes are you thinking about?

Your Gender
Your Native Language
Number of languages you speak
In what country were you born?
What is your ethnicity?
What is your age?
Years of Full-Time Work Experience
What country do you live in now?
How many different countries have you lived in (for at least 6 months) over your lifetime?
Indicate the amount of experience you have had interacting with people from different countries:
Indicate the amount of experience you have had interacting with people from different cultural backgrounds:

Thank you,
Keyla

Keyla Waslawski
Manager, Operations

CULTURAL INTELLIGENCE CENTER
678 Front Ave NW, Suite 340
Grand Rapids, MI 49504
+1-616-855-1737 (Main Office)

## Appendix E: Liberty IRB Approval

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

October 5, 2018

Mykka Fisher
IRB Exemption 3452.100518: The Study of the Impact of Cultural Intelligence (CQ) Training on CQ Measures of Expatriate Employees in International Business

Dear Mykka Fisher,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under exemption category 46.101(b)(2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:101(b):

> (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
> (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Please note that this exemption only applies to your current research application, and any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

**G. Michele Baker, MA, CIP**
*Administrative Chair of Institutional Research*
**The Graduate School**

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UNIVERSITY.
*Liberty University | Training Champions for Christ since 1971*