EXAMINING THE CROSS-CULTURAL COMPETENCE OF UNITED STATES CHRISTIAN MISSIONARIES ENGAGED IN DEVELOPING INDIGENOUS LEADERS: A MIXED METHODS STUDY

Craig W. Goodman
University of San Diego

Follow this and additional works at: https://digital.sandiego.edu/dissertations

Part of the Christianity Commons, Cognitive Science Commons, Indigenous Education Commons, International and Intercultural Communication Commons, Interpersonal and Small Group Communication Commons, Leadership Studies Commons, Missions and World Christianity Commons, Other International and Area Studies Commons, Other Social and Behavioral Sciences Commons, Other Sociology Commons, Practical Theology Commons, Quantitative, Qualitative, Comparative, and Historical Methodologies Commons, Race and Ethnicity Commons, Religious Education Commons, Social and Cultural Anthropology Commons, Social Influence and Political Communication Commons, Social Psychology and Interaction Commons, Sociology of Culture Commons, and the Sociology of Religion Commons

Digital USD Citation
https://digital.sandiego.edu/dissertations/922

This Dissertation: Open Access is brought to you for free and open access by the Theses and Dissertations at Digital USD. It has been accepted for inclusion in Dissertations by an authorized administrator of Digital USD. For more information, please contact digital@sandiego.edu.
EXAMINING THE CROSS-CULTURAL COMPETENCE OF UNITED STATES CHRISTIAN MISSIONARIES ENGAGED IN DEVELOPING INDIGENOUS LEADERS: A MIXED METHODS STUDY

by

Craig Goodman

A dissertation submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

May 2022

Dissertation Committee

Fred Galloway, EdD
Robert Donmoyer, PhD
Mark Fields, PhD

University of San Diego
CANDIDATE’S NAME: Craig W. Goodman

TITLE OF DISSERTATION: EXAMINING THE CROSS-CULTURAL COMPETENCE OF UNITED STATES CHRISTIAN MISSIONARIES ENGAGED IN DEVELOPING INDIGENOUS LEADERS: A MIXED METHODS STUDY

APPROVAL:

_____________________________________, Chair
Fred J. Galloway, EdD

_____________________________________, Member
Robert Donmoyer, PhD

_____________________________________, Member
Mark Fields, PhD

DATE: April 8, 2022
ABSTRACT

For the past two millennia, missionaries have crossed from one culture to another to bring the Christian message to all cultures of the world. Questions about the effectiveness of these mission efforts have been asked and researched by many; however, one key question remains unanswered: what personal attributes help a person to be more competent at crossing cultures as they interact with people from other cultures? Although cross-cultural competence has been studied in a variety of fields over the past 50 years, the models and assessments used have never been applied to Christian missionaries.

To address this deficiency, this parallel convergent mixed-methods study used a 169-question survey to first identify the levels of 11 attributes linked to cross-cultural competence among U.S. Association of Vineyard Churches missionaries, and then empirically explored the demographic and cognition style factors that might explain variation in the distribution of these attributes. Additionally, qualitative interviews were conducted with a handful of indigenous leaders who worked with the missionaries that participated in the survey. Results revealed that respondents scored highest in the attributes of: relationship orientation, interpersonal skills, culture interest, inquisitiveness, inclusiveness, and self-efficacy, while variation in the attributes were explained by the extent to which respondents were cross-culturally prepared, the number of mission trips taken, years of cross-cultural experience, amount of cross-cultural training, and personal fear of invalidity. These qualitative data supported several attributes, including inclusiveness, suspending judgement, stress resilience, and self-efficacy; however, it challenged the attributes of personal need for structure, optimism, and language proficiency. Importantly, these qualitative data also revealed that contextualization, an attribute not measured in the
quantitative study, was important; therefore, scoring high in some cross-cultural competence attributes may not increase a person’s cross-cultural competence, based on the culture.

This study supports, as does the current research of cross-cultural competence models and assessments, the need to further refine these models and assessments to develop more effective ways to assess the cross-cultural competence of individuals. As this was the first study examining the cross-cultural competence of Christian missionaries, the results will inform cross-cultural training, development, and selection to improve competence and effectiveness.
ORDER OF PAGES

ORDER OF PAGES ........................................................................................................ vi

LIST OF TABLES .......................................................................................................... x

LIST OF FIGURES ........................................................................................................ xii

CHAPTER ONE: INTRODUCTION .................................................................................. 1
  Background .................................................................................................................. 2
  Increasing Importance of Cross-Cultural Competence for Christian Missions ........... 3
  Statement of Problem ................................................................................................. 4
  Purpose of Study ........................................................................................................ 5
  Research Questions .................................................................................................... 6

CHAPTER TWO: REVIEW OF LITERATURE ................................................................... 7
  Search Strategy ........................................................................................................... 8
  Definition and Components of Cross-Cultural Competence ....................................... 9
  Significance of Cross-Cultural Competence ............................................................... 11
    Researching Cross-Cultural Competency Across Disciplines ................................... 12
    Increasing Importance of Cross-Cultural Competence for Christian Missions ........ 13
    Summary ................................................................................................................ 15

Cross-Cultural Models ................................................................................................ 15
  Types of Cross-Cultural Models .............................................................................. 16
  Military Cross-Cultural Models .............................................................................. 17
  Summary ................................................................................................................... 22

Assessing Cross-Cultural Competence ........................................................................ 22
  Military Cross-Cultural Competence Assessments .................................................. 22
Limitations .................................................................................................................. 24
Summary ..................................................................................................................... 26
Conclusion and Implications for Future Research ...................................................... 26

CHAPTER THREE: METHODOLOGY ............................................................................. 29
Research Methodology .............................................................................................. 29
Population ................................................................................................................... 30
Data Collection Procedures ....................................................................................... 31
Data Collection Instrumentation ................................................................................ 32
Data Analytics ............................................................................................................ 39
Data Analysis Procedures .......................................................................................... 39
Limitations and Delimitations .................................................................................... 41
Limitations ................................................................................................................... 41
Delimitations ............................................................................................................... 42
Significance of the Study ............................................................................................. 42
Potential Contributions of the Study .......................................................................... 43

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS .............................................. 45
Survey Methodology .................................................................................................. 46
Age, Gender, Ethnicity, Education, Ordained/Licensed, and Position ......................... 47
Years of Ministry and Cross-Cultural Experience ...................................................... 48
Continent Worked and Number of and Weeks on Missions Trips in Last 5 Years ........ 50
Language Proficiency, Time Spent With Indigenous Leaders, Knowledge of Culture... 52
Cross-Cultural Training, How Cross-Culturally Prepared Initially and Currently .......... 54
Attribute Profiles ....................................................................................................... 56
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship Orientation</td>
<td>108</td>
</tr>
<tr>
<td>Cultural Acuity</td>
<td>109</td>
</tr>
<tr>
<td>Interpersonal Skills</td>
<td>109</td>
</tr>
<tr>
<td>Cultural Interest</td>
<td>110</td>
</tr>
<tr>
<td>Inquisitiveness</td>
<td>111</td>
</tr>
<tr>
<td>Suspending Judgement</td>
<td>112</td>
</tr>
<tr>
<td>Stress Resilience</td>
<td>113</td>
</tr>
<tr>
<td>Inclusiveness</td>
<td>114</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>115</td>
</tr>
<tr>
<td>Which Factors Mattered and Which Did Not</td>
<td>116</td>
</tr>
<tr>
<td>Comparisons With Other Research</td>
<td>118</td>
</tr>
<tr>
<td>Cross-Cultural Competence in the Military</td>
<td>118</td>
</tr>
<tr>
<td>Potential Future Research</td>
<td>126</td>
</tr>
<tr>
<td>References</td>
<td>128</td>
</tr>
<tr>
<td>APPENDIX A Cross-Cultural Competence Self-Assessment</td>
<td>139</td>
</tr>
<tr>
<td>APPENDIX B Cognition Style Self-Assessment</td>
<td>143</td>
</tr>
<tr>
<td>APPENDIX C Demographic Questionnaire</td>
<td>146</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 1. Cultural Competence Framework ................................................................. 18
Table 2. Cross-Cultural Competence Core Competencies and Enablers ..................... 19
Table 3. Framework for Understanding Cross-Cultural Competence ............................ 20
Table 4. Means Scores for Cross-Cultural Competence Factors ................................. 58
Table 5. Ranges for Cognition Style Factors .................................................................. 59
Table 6. Means Scores for Cognition Style Factors ...................................................... 60
Table 7. Mean Scores of Top and Bottom 20% for Cross-Cultural Competence Factors ... 63
Table 8. Mean Scores of Top and Bottom 20% for Cognition Style Factors .................. 64
Table 9. Relationship Orientation Model Data ............................................................. 68
Table 10. Cultural Acuity Model Data ........................................................................... 69
Table 11. Interpersonal Skills Model Data ..................................................................... 70
Table 12. Cultural Interest Model Data .......................................................................... 71
Table 13. Inquisitiveness Model Data .......................................................................... 72
Table 14. Suspending Judgement Model Data .............................................................. 73
Table 15. Stress Resilience Model Data ....................................................................... 74
Table 16. Inclusiveness Model Data ............................................................................. 75
Table 17. Self-Efficacy Model Data .............................................................................. 76
Table 18. Number of Respondents Per Attribute ........................................................... 78
Table 19. Examples of Inquisitiveness Interviewee Quotes .......................................... 79
Table 20. Examples of Interviewee Quotes that Added Nuance to the Idea of Inquisitiveness .. 80
Table 21. Examples of Suspending Judgement Interviewee Quotes .............................. 81
Table 22. Optimism Interviewee Quotes ..................................................................... 81
Table 23. Stress Resilience Interviewee Quotes ................................................................. 82
Table 24. Inclusiveness Interviewee Quotes ........................................................................ 82
Table 25. Examples of Interviewee Quotes that Added Nuance to the Idea of Being Inclusive. 83
Table 26. Self-Efficacy Interviewee Quotes .......................................................................... 84
Table 27. Examples of Interviewee Quotes that Added Nuance to the Idea of Self Efficacy ... 85
Table 28. Need for Flexibility Interviewee Quotes ................................................................. 86
Table 29. Quote That Adds Nuance Interviewee Quotes about Flexibility ......................... 86
Table 30. Need for Cognition Interviewee Quotes ................................................................. 87
Table 31. Rigidity Interviewee Quotes .................................................................................. 88
Table 32. Personal Fear of Invalidity Nuance Interviewee Quotes ........................................ 89
Table 33. Language Proficiency Interviewee Quotes ............................................................ 89
Table 34. Cultural Knowledge Interviewee Quote ................................................................. 90
Table 35. Paternalism Interviewee Quote ............................................................................. 90
Table 36. Incarnational Interviewee Quote .......................................................................... 91
Table 37. Perseverance and Patience Interviewee Quote ...................................................... 92
Table 38. Humility Interviewee Quote .................................................................................. 92
Table 39. Contextualization Interviewee Quotes ................................................................. 93
Table 40. Power Imbalance Interviewee Quotes ................................................................. 93
Table 41. Spiritual Transformation Interviewee Quote .......................................................... 94
Table 42. Mean Scores of Top and Bottom 20% for Cross-Cultural Competence Factors ...... 104
Table 43. Mean Scores of Top and Bottom 20% for Cognition Style Factors ....................... 106
LIST OF FIGURES

Figure 1. Cross-Cultural Competency – Path Diagram .................................................. 35
Figure 2. Cross-Cultural Competence Factors – Maximum and Minimum Scores .............. 37
Figure 3. Cognition Style Factors – Maximum and Minimum Scores .................................. 38
Figure 4. Age Distribution Across the Study Participants ................................................ 47
Figure 5. Education Level Distribution Across the Study Participants ............................. 48
Figure 6. Years of Ministry Experience ........................................................................... 49
Figure 7. Years of Cross-Cultural Experience .................................................................. 49
Figure 8. Continent Worked In ....................................................................................... 50
Figure 9. Number of Missions’ Trips in Last 5 Years ...................................................... 51
Figure 10. Number of Weeks on Missions’ Trips in Last Five Years .................................. 52
Figure 11. Language Proficiency ..................................................................................... 53
Figure 12. Time Spent With Indigenous Leaders ............................................................. 53
Figure 13. Knowledge of Culture ..................................................................................... 54
Figure 14. Amount of Cross-Cultural Training ................................................................. 55
Figure 15. How Cross-Culturally Prepared Initially .......................................................... 55
Figure 16. How Cross-Culturally Prepared Currently ....................................................... 56
Figure 17. Cross-Cultural Competence Mean Scores ....................................................... 58
Figure 18. Cognition Style Mean Scores ........................................................................... 61
Figure 19. Cross-Cultural Competence Factor Mean Scores for Top and Bottom 20% ....... 62
Figure 20. Cognition Style Factor Mean Scores for Top and Bottom 20% .......................... 63
Figure 21. Cross-Cultural Competence Factor Mean Scores for the Top and Bottom 20% .... 105
Figure 22. Cognition Style Factor Mean Scores for Both the Top and Bottom 20% .......... 107
CHAPTER ONE: INTRODUCTION

Competent cross-cultural leaders are needed more than ever as globalization increases rapidly and as organizations in all sectors are becoming more diverse and developing across and into more cultures. Borders between cultures have become more blurred over time, and their boundaries have become more permeable in areas like information sharing, education, and business. People between cultures and nation states are relating to one another increasingly, as cultural diversity increases in and between countries and organizations. An increase in globalization results in an increase in cross-cultural activity. As such, an important aspect of cross-cultural interaction is cross-cultural leadership development. Effective cross-cultural leadership is critical to the effectiveness of cross-cultural organizations, both domestically and abroad; however, effective leadership qualities in one culture may not be useful in a different culture. Although some general leadership qualities would transcend any culture, others are culturally specific (Early et al., 2006).

The increase in cross-cultural leadership development results in an increased demand for more cross-culturally competent leaders, who have been trained and are experienced in engaging effectively with people from other cultures and developing leaders from cultures other than their own. Cross-cultural competence can be defined as the process through which people and organizations respond effectively to people from diverse cultures, languages, classes, races, ethnic backgrounds, religions, and other diverse factors making up a culture (Early & Ang, 2003). Areas such as business, healthcare, education, and social are examples of sectors in society grappling with cross-cultural leadership development.

This research study examined cross-cultural leadership development in the religious sector. Specifically, this study examined the competence of a group of U.S. missions leaders
actively developing indigenous leaders in their countries. This study examined leaders’ personal background attributes and how they processed information and made decisions to understand how these components may correlate with their level of competence. Additionally, indigenous leaders were asked what attributes they believed were necessary for a missionary to have to make them more effective at crossing cultures for the purpose of developing leaders from other cultures. The results of this research will inform how these leaders are selected and trained. First, I briefly discuss the history of cross-cultural competence. This is followed by the existing current problem in measuring cross-cultural competence, the purpose of this study, and the research questions. Next, I present the current state of the literature. Then, I discuss the research methodology, limitations and delimitations, and significance of this study. Finally, I discuss the finding and the story in these data, and conclude with a section about recommended further research.

**Background**

Christian cross-cultural workers or missionaries have significant experience developing leaders cross-culturally (i.e., leaders needing to be cross-culturally competent). People working in this profession began crossing over from one culture to another 2000 years ago with the Apostle Paul with the goal of developing leaders. Paul was a Jewish rabbi from Tarsus, a Greco-Roman city during his time, in the region of what is now southern Turkey. He travelled throughout the Mediterranean region on three trips over a period of 11 years, covering over 10,000 miles (Open Bible, 2020). Paul believed he needed to be “all things to all people” (1 Corinthians 9:19-23, New International Version, 1986) to fulfill his mission to tell people about Jesus Christ and to spread his message. As a result, Paul came across many different cultures as he travelled throughout the Mediterranean. He believed to be able to communicate his message,
he needed to communicate across cultures so they would receive his message in the way their culture would understand it.

**Increasing Importance of Cross-Cultural Competence for Christian Missions**

Cross-cultural competence research in Christian missions has been limited (Owan, 2014). However, there has been discussion in recent years among missions and church organizations about the need for cultural competence among those working in other cultures. The Catholic church has recognized the ever-increasing diversity of cultures in the United States and the need for their clergy and missionaries to be able to communicate the gospel message, not only abroad but to the multicultural communities in the United States. They gathered senior leaders in the United States in 2012 to discuss this issue. At the conclusion of this gathering, they recognized a continued need for clergy and missions workers to not only have theological competence, but also competence in communicating theologically across cultures. They recognized the church should become more culturally competent and needed to build capacity for cultural and intercultural capacity (Deck, 2012).

Although formal schools and universities train people to become cross-cultural workers and missionaries throughout the Western world, Europe, and in societies with populations largely originating from Europe during the Age of Discovery’s imperialism, they focus primarily on the formal aspects of training (“Western World,” n.d.). Some training areas include policies and procedures, mission-team dynamics, discipleship, theology of missions, spiritual warfare, psychological testing, and personality assessments. However, such training assumes cross-cultural competence can be learned through acquiring abstract knowledge. Practical hands-on training has been missing to help missionaries understand the culture in which they work and to communicate the gospel message to the culture.
Statement of Problem

Whiteman (2008) underscored the root of cross-cultural competence shortcomings in a comment on the current state of missionary education and its impacts on the effectiveness or lack thereof of missiological efforts. They stated, “To send out missionaries who are inadequately trained can no longer be excused and should no longer be tolerated. We have enough insights from adult education, anthropology, cross-cultural communication, etc. to avoid the pitfalls of the past” (Whiteman, 2008, p. 15). Although no one would argue against the existing formal training, it does not fully equip individuals for effective cross-cultural mission (Whiteman, 2008). Apart from gaps in training, there has also been a lack of capacities to determine a person’s cultural competence. Richards (2012) noted there has been an increased need for cultural competence assessments because people called to the ministry of the church and missions have come from increasingly different cultural backgrounds. In addition, clergy have also been asked to work in increasingly diversifying communities.

There has been no known method of measuring a Christian missions leaders’ competency in crossing from their culture to other cultures to develop indigenous leaders. The literature has indicated a lack of cross-cultural competence among Christian cross-cultural leaders in the West when developing nonwestern indigenous leaders. In 2020, there were 13 million Christian missionaries in the world and 5,500 cross-cultural or missions sending organizations (Zurlo et al., 2020). However, there has been no overarching framework for cross-cultural training and education, no clear method of measuring progress or effectiveness, no process of assessing cross-cultural competence, and no process to assign personnel to cross-cultural positions based on cross-cultural competency.
**Purpose of Study**

This study explored cross-cultural competence among Christian missions leaders. Specifically, this research looked at how Christian missional leaders’ cognition style and personal background correlated to their cross-cultural competence. The question explored asked if there were some Christian missions leaders who appeared better prepared to excel in a cross-cultural setting? The answer to this question can inform how to train and select individuals for cross-cultural leadership development roles in Christian missions.

This mixed methods study was focused on leaders in the U.S. Association of Vineyard Churches (USAVC) cross-cultural missions organization assigned to develop nonwestern or indigenous leaders. Using the self-reported survey instruments of cross-cultural competence and quantitative techniques, I examined relationships of key variables such as personal background from the demographic survey, cognition style factors collected from the survey instruments, and individual performance from cross-cultural competence assessments. The objective was to identify personal traits (i.e., factors) with high correlation to leaders who were superior or substandard performers in cross-cultural competence assessments. Additionally, I used qualitative data gathered through interviews with indigenous leaders to determine if qualitative data challenged or supported quantitative data. Identifying demographic and cognition style features for individuals with superior cross-cultural performance could help to identify personality factors leading to superior cross-cultural performance, thereby assisting in selecting the right individuals for cross-cultural assignments.
Research Questions

1. For USAVC missionaries, what are the attribute profiles from the cross-cultural competency assessment, defined by sample mean scores, of these leaders who are superior and substandard performers?

2. What is the relationship, if any, between USAVC missionaries’ demographic features, cognition style factors and individual scores in cross-cultural competence?

3. How and to what extent did these qualitative data challenge or support the results of these quantitative data?
CHAPTER TWO: REVIEW OF LITERATURE

An increase in globalization results in an increase in cross-cultural activity, including cross-cultural leadership development. Effective cross-cultural leadership is critical to the effectiveness of cross-cultural organizations, both domestically and abroad. However, effective leadership qualities in one culture may not be useful in a different culture. So, although general leadership qualities undoubtedly transcend cultures, others are culturally specific (Early et al., 2006). An increase in cross-cultural leadership development results in increased demand for more cross-culturally competent leaders who have been trained and are experienced in developing leaders from different cultures. Cross-cultural competence has been defined as the process of people and organizations responding effectively to people from diverse cultures, classes, languages, religions, races, ethnic backgrounds, and other diverse factors constituting a culture (Early & Ang, 2003).

U.S. Christian missionaries are members of a profession that has spent significant time developing leaders cross-culturally, especially indigenous leaders. Two millennia ago, the Apostle Paul was one of the first Christian leaders to cross over from one culture to another to develop leaders. He travelled throughout the Mediterranean region on three trips over a period of 11 years, covering over 10,000 miles (Open Bible, 2020). To fulfill his mission to tell people about Jesus Christ and his message, he believed he needed to be “all things to all people” (1 Corinthians 9:19–23, New International Version, 1986). As such, he believed he needed to communicate this message across cultures to be able to communicate effectively in a way those hearing the message would receive it so their culture would understand it. However, even now there have been significant misunderstandings concerning leadership in the cultural diversity
context, and a need to improve cross-cultural competence of Christian missionaries remains (Plueddemann, 2009; Whiteman, 2008).

In this literature review, I discuss the search strategy and the concept, components, and definition of cross-cultural competence. This is followed by a review of cross-cultural competence research across a variety of disciplines. Then, I discuss the increasing interest of cross-cultural competence in the field of Christian missions. The review closes with an analysis of available cross-cultural competence models and assessments.

**Search Strategy**

My search strategy began with a broad search of cross-cultural competence followed by refining the search to cross-cultural competence models and assessments. I searched the following databases: EBSCOhost, ProQuest, and Google Scholar. I examined published journal articles, including peer-reviewed articles and completed dissertations. The focus of this literature review was cross-cultural competence of U.S. Christian missionaries. Consequently, the key words for my searches centered on culture, cross-cultural competence, cross-cultural competence models and assessments, mission, Christian mission, church mission, religion, faith, and denomination.

My search revealed the interdisciplinary nature of this field of study as relevant research came from many different sectors, including healthcare, psychology, sociology, religion, organizational studies, education, anthropology, leadership, business, military, and missiology, the academic field studying Christian mission (“Missiology,” n.d.). The review also relied on nonacademic sources, including publications from the U.S. Department of Defense. I identified 81 sources related to cross-cultural competence and focused on 39 of these sources to complete this review. These 39 sources were chosen (a) because they were the most recent publications in
cross-cultural competence research (i.e., most cross-cultural competence research has been done in the last 20 years) and (b) because of their relevance to missions and cross-cultural competence models and assessments. In addition, I reviewed 20 articles focused on cross-cultural competence models and selected 12 discussing military-related models. Similarly, regarding cross-cultural competence assessments, I began with 11 articles and narrowed the number to six articles specifically related to military assessments.

**Definition and Components of Cross-Cultural Competence**

Before providing a discussion on the definition of cross-cultural competence, an examination of how cross-cultural competence has been characterized in the literature is warranted. Gabrenya, Moukarzel, et al. (2012), Selmeski (2007), and Spitzberg and Changnon (2009) discussed conceptual and semantic issues when examining the construct of competence. Discussions about objective ways to determine competence like knowledge, skills, and abilities have been typical. Chiu and Shi (2019) conceptualized cross-cultural competence as a person’s set of inherent attributes and as an expertise based on knowledge and application of that knowledge. In this discussion, the concept of competence can be objectively characterized through acquired knowledge or a set of learned skills or abilities. In addition to objective ways of defining competence, other researchers such as Abbe and Bortnick (2010) and Turnley (2011) have argued competence could also be characterized as a subjective evaluative feeling of degree of performance. Others have argued context could play a role in how a skill or behavior has been perceived, and a person could have no particular skills to enable them to be competent across all contexts and cultures (Spitzberg & Changnon, 2009; Spitzberg & Cupach, 2002). These scholars emphasized cross-cultural competence as more dependent on the specific cultural context than inherent individual qualities or acquired skills.
Cross-cultural competence, and how a person develops competence in cross-cultural settings, is multifaceted and challenging to frame succinctly. Based on a study of Canadian military professionals’ competence working in different cultures, Selmeski (2007) highlighted cross-cultural competence is not just about acquiring knowledge about cultures or learning languages associated with these cultures. Instead, cross-cultural competence requires: (a) a type of learning leading to a greater understanding of how and why people in a culture think and behave, along with recognition and acceptance of those differences; (b) balancing general and specific cultural knowledge; (c) developing ongoing learning through training and education; and (d) the ability to take appropriate action which ultimately entails “a conversion of this knowledge to action through cultivation of positive behaviors, the ability to adapt and integrate awareness to action” (Selmeski, 2007, p. 12).

There are certain skills people can possess or acquire to help increase their competence cross-culturally, but generally cross-cultural competence evolves over time in an iterative, experiential process. According to Paris (2012), cross-cultural competence (a) is an integration of general cultural knowledge and skills, attitudes, and abilities which includes motivation and affect (Abbe et al., 2007); (b) is developed through training, education, and experience (Ross & Thornson, 2008); (c) leverages a person’s personality traits; and (d) happens throughout a person’s life (Reid, Kaloydis, et al., 2012). Additionally, cross-cultural competence is the ability to comprehend a cross-cultural situation quickly and precisely and take proper and efficacious action, regardless of lack of knowledge about the culture or if the culture’s qualities are different from or contradictory to one’s own (Abbe et al., 2007; Selmeski, 2007). Finally, knowledge, attitude, and behavior must all work together to develop competency cross-culturally (Bennett, 1986).
Significance of Cross-Cultural Competence

Cross-cultural competence and similar terms like cultural sensitivity, cultural relevance, cultural diversity, cultural awareness, cultural proficiency, ethnic competence, diversity competence, intercultural competence, and multiculturalism have been a research focus since the middle of the 20th century (Gallegos et al., 2008). Research has been conducted in a variety of sectors such as business, healthcare, and education sectors; all have recognized the need for people working in those fields to be more effective when working in cultures different than their own. In the past 20 years, the military has also recognized the need to better equip their personnel to improve their effectiveness working in other cultures around the world. As such, the military has done a considerable amount of research in this area. The sector of Christian missions has also recognized the need for those in the field to be cross-culturally competent but has done very little research around cross-cultural competence.

Although cross-cultural competence research in the business and healthcare sectors has been insightful and could help inform cross-cultural competence research in the field of missions, the missions context also differs significantly and requires more context-specific research. Research related to the military sector has been most closely aligned with the context of Christian missions because both sectors pursue goals often resisted at local levels. Business and healthcare sectors are likely to find cross-cultural interactions less contentious because of the perceived benefit they can bring to another culture. Conversely, many people would likely be more apprehensive of the U.S. military or Christian missions regardless of their culture due to negative perceptions of those sectors. Military service members and Christian missionaries are unique because their presence in other cultural contexts may be questioned. Consequently, military-based research on cross-cultural competence is discussed in a later section.
Researching Cross-Cultural Competency Across Disciplines

Research about competent cross-cultural engagement began in the mid-20th century when researchers examined volunteers and students working and studying abroad. Research examined character traits enabling volunteers and students to adapt and perform in a different culture (Ezekiel, 1968; Guthrie & Zektick, 1967; Lysgaard, 1955; Mischel, 1965; Smith, 1966; Smith et al., 1963). Competence or related terms like effectiveness and adaptation were seen in later cross-cultural studies (Hammer et al., 1978; Ruben, 1976; Ruben & Kealey, 1979; Spitzberg & Changnon, 2009; Wiseman & Abe, 1986). In addition to volunteers and students, the health care community has also considered the importance of cross-cultural competence as a condition for effectively delivering medical care (Betancourt, 2006; Kripalani et al., 2006; Shapiro et al., 2009).

The business sector has also done considerable research about cross-cultural competence. In his work studying employee morale in over 70 countries in the 1960s, Hofstede’s (1980) *Culture’s Consequences* presented four dimensions of culture. His work was one of the foundational works in cross-cultural psychology (Baskerville, 2003). In subsequent efforts, House et al. (2004) organized a way of categorizing differences between cultures. Following House’s work, the Global Leadership and Organizational Behavior Effectiveness (GLOBE) Project helped to bring understanding of how culture impacts leadership (House et al., 2014). Cross-cultural competence research in business has revealed the need to improve cross-cultural competence of leaders working in cross-cultural settings.

Over the last 20 years, the military has sponsored a significant amount of research to assist service members in increasing their cross-cultural competence (Gabrenya, Moukarzel, et al., 2012). Three Department of Defense organizations have been major sponsors of cross-
cultural competence research: the Defense Language Office (DLO), the Defense Equal Opportunity Management Institute, and the Army Research Institute (Abbe et al., 2007; Caligiuri et al., 2011; Johnston et al., 2010; McCloskey, Behymer, et al., 2010; McCloskey, Gandjean, et al., 2010; McDonald et al., 2008; Paris, 2012; Reid, Kaloydis, et al., 2012; Reid, Steinke, et al., 2012; Ross & Thornson, 2008). This effort has developed military related cross-cultural models and assessments.

**Increasing Importance of Cross-Cultural Competence for Christian Missions**

Cross-cultural competence research in Christian missions has been limited (Owan, 2014). However, in recent years there has been some discussion among missions and church organizations about the need for cultural competence among those working in other cultures. The Catholic church gathered senior leaders in the United States in 2012 to discuss cultural competence as they recognized the ever-increasing diversity of cultures in the United States and the need for their clergy and missionaries to be able to communicate the gospel message, not only abroad with other cultures but with multicultural communities in the United States. In an essay written for this meeting of the U.S. Council of Catholic Bishops, Deck (2012) wrote about the need for the Catholic church to become more culturally competent and to build capacity for cultural and intercultural capacity. Deck (2012) recognized not only a continued need for theological competence, but also for clergy and missions workers to be competent in communicating theologically across cultures and “building capacity for cultural and intercultural proficiency and competence is the most strategic step ecclesial ministers can take today” (p. 5). Deck developed the following guidelines: (a) construct issues of diversity biblically regarding the church and its mission, (b) strive to understand diversity of cultures, (c) expand cross-cultural
communication abilities, (d) develop knowledge of challenges restricting effective cross-cultural relationships, and finally (e) promote ecclesiastical integration as opposed to assimilation.

Formal schools and universities throughout Western society have trained people to become cross-cultural workers and missionaries; their focus has been primarily on formal training aspects, including policies and procedures, mission-team dynamics, discipleship, theology of missions, spiritual warfare, psychological testing, and personality assessments. Such training has assumed cross-cultural competence could be learned by acquiring abstract knowledge. There has been a gap in practical hands-on training for missionaries to understand the culture in which they work and to communicate the gospel message to the culture. Whiteman (2008) commented on the current state of missionary education and how it has impacted the effectiveness or lack thereof of missiological efforts by stating: “To send out missionaries who are inadequately trained can no longer be excused and should no longer be tolerated. We have enough insights from adult education, anthropology, cross-cultural communication, etc. to avoid the pitfalls of the past” (p. 15). No one would argue against the existing formal training, but it has not fully equipped individuals for effective cross-cultural mission (Whiteman, 2008).

Apart from gaps in training, there has also been a lack in capacity to determine a person’s cultural competence. One study examined the importance of assessing cultural competence for seminary applicants through a psychological perspective. Richards (2012) noted for the past 40–50 years, psychologists have been instrumental in adding psychological measures when evaluating Catholic seminarian candidates to better inform schools when selecting individuals. However, research has indicated these evaluations have not taken steps to incorporate cultural competency measures. Richards further argued for an increased need for cultural competence assessments because people called to the church ministry and missions have come from
increasingly different cultural backgrounds. In addition, clergy have also been asked to work in increasingly diversifying communities.

Summary

Research has focused on cross-cultural competence and similar terms in the last 50 years. The primary sectors engaged in cross-cultural competence research have been business, healthcare, education, and the military. Literature in the field of Christian missions has recognized the need for cross-cultural competence in the profession but there has been a lack of research in improving the cross-cultural competence for those in the field. Of the sectors researching cross-cultural competence, the military sector has aligned most with Christian missions as the military has developed cross-cultural competence models and assessments.

Cross-Cultural Models

Five model types have been developed to help describe cross-cultural competence and individual performance has been used as the unit of analysis in most models (Spitzberg & Changnon, 2009). Although these models have overlapped often, each has had unique strengths and weaknesses and could be classified into five different types: (a) co-orientation (Byrum, 1997; Fantini, 1995; Kupka, 2008), (b) adaptation (Berry et al., 1989; Kim, 1988; Navas et al., 2007), (c) causal-path (Arasaratnam, 2006; Griffith & Harvey, 2001; Ting-Toomey, 1999), (d) development (Bennett, 1986; Gullahorn & Gullahorn, 1963; King & Magolda, 2005), and (e) composition (Deardoff, 2006; Ting-Toomey & Kurogi, 1998). Co-orientation, adaptation, and causal-path models are briefly described first, followed by a brief discussion of composition and development models—the two model types discussed most often in military cross-cultural competence literature; the most recent military models have used a hybrid of the two.
Types of Cross-Cultural Models

Co-orientation models have emphasized personal relationships, time, and continual improvements where people from different cultures have developed shared understanding due to many engagements with one another (Spitzberg & Chagnon, 2009). Through these multiple interactions over time, both individuals co-orient themselves with one another and make meaning from these engagements to adjust their behavior accordingly. Adaptation models have emphasized how an individual has adjusted to another culture by engaging with people from the other culture (Spitzberg & Chagnon, 2009). However, adaptation over time has an implied assumption for most cross-cultural competence models because a person’s cross-cultural competence has improved when they have been able to adapt to a different culture. Causal-path models have described interactions between individuals in a linear structure. However, these models have been very challenging to verify and map because interactions between people from different cultures over time have been complex, multifaceted, and not necessarily linear (Spitzberg & Chagnon, 2009).

Conversely, development models have emphasized phases of development over time and have been used typically for priorities such as equipping and development. These models have been effective in modeling change over time but have been weak in identifying personality traits of cross-cultural competence needed to mediate this development (Spitzberg & Chagnon, 2009). Composition models have identified certain characteristics constituting cross-cultural competence such as knowledge, skills, abilities, and other characteristics (KSAOs). These KSAOs have been formulated, typically, into cogent sets suggesting causal progression (Gabrenya, Moukarzel, et al., 2012). Compositional models have helped define the basic attributes included in an intercultural communication competence theory, although these models
have yet to identify the conditional relationships between components (Spitzberg & Chagnon, 2009). Furthermore, these models have been vague about what has constituted competence, such as levels of expertise and specific set of criteria to distinguish different levels of competence.

The most recent models have combined compositional and developmental aspects, capturing training and progression of cross-cultural competence over time. Using a hybrid compositional-development model, the military defense language office (DLO) framework for cross-cultural competence has attempted to describe capability at various levels of development and has established combinations of KSAOs to enable competency at various levels of development.

**Military Cross-Cultural Models**

The military has developed a few models to aid in understanding and fostering cross-cultural competence. For example, after examining a compositional cross-cultural competence model developed by the DLO (Johnston et al., 2010), Gabrenya, Moukarzel, et al. (2012) stated it was the most carefully developed model for the military to date.

The first military focused cross-cultural competence model was developed by Abbe et al. (2007); it included a framework with three main and multidimensional components: (a) knowledge of cognition, (b) affect and motivation, and (c) skills. Antecedents contributing to cross-cultural competence were identified in this model, including life history and experience, personality characteristics, and self-identity (see Table 1; Abbe et al., 2007).
Table 1

Cultural Competence Framework

<table>
<thead>
<tr>
<th>Knowledge and cognition</th>
<th>Affect and motivation</th>
<th>Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-cultural awareness</td>
<td>Empathy</td>
<td>Interpersonal skills</td>
</tr>
<tr>
<td>Cross-cultural schema</td>
<td>Need for closure</td>
<td>Self-regulation</td>
</tr>
<tr>
<td>Cognitive complexity</td>
<td>Attitudes and initiative</td>
<td>Flexibility</td>
</tr>
</tbody>
</table>


Further research refined elements of military cross-cultural competence and identified supporting behaviors and skills (Hardison et al., 2009; McCloskey, Behymer, et al., 2010; McCloskey, Gandjean, et al., 2010; McDonald et al., 2008; Ross et al., 2010). Johnston et al. (2011) refined a model first developed by Johnston et al. (2010) with six core skills or competencies to establish 13 core enablers (see Table 2).
Table 2

Cross-Cultural Competence Core Competencies and Enablers

<table>
<thead>
<tr>
<th>Core competencies</th>
<th>Core enablers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thinking factors</td>
<td>Cognition</td>
</tr>
<tr>
<td>Connecting factors</td>
<td>Tolerance for ambiguity</td>
</tr>
<tr>
<td>Resilience factors</td>
<td>Low need for closure</td>
</tr>
<tr>
<td>Engagement factors</td>
<td>Suspending judgement</td>
</tr>
<tr>
<td></td>
<td>Inclusiveness</td>
</tr>
<tr>
<td>Applying cultural knowledge</td>
<td>Communication</td>
</tr>
<tr>
<td></td>
<td>Learning</td>
</tr>
<tr>
<td></td>
<td>Learning through observation</td>
</tr>
<tr>
<td></td>
<td>Inquisitiveness</td>
</tr>
<tr>
<td>Organizational awareness</td>
<td>Emotion</td>
</tr>
<tr>
<td></td>
<td>Stress resilience</td>
</tr>
<tr>
<td></td>
<td>Emotional regulation</td>
</tr>
<tr>
<td></td>
<td>Interaction</td>
</tr>
<tr>
<td></td>
<td>Social flexibility</td>
</tr>
<tr>
<td></td>
<td>Willingness to engage</td>
</tr>
<tr>
<td>Cultural perspective taking</td>
<td>Self</td>
</tr>
<tr>
<td></td>
<td>Self-confidence</td>
</tr>
<tr>
<td></td>
<td>Self-identity</td>
</tr>
<tr>
<td></td>
<td>Optimism</td>
</tr>
</tbody>
</table>


Abilities were defined as core competencies like attitudinal, behavioral, and cognitive, and personality traits were characterized as enablers. However, although enablers provided desire and behavior traits could be learned and acquired, people may not have used their skills effectively. Underscoring the importance of having enablers, Paris (2012) argued people with strong core competencies and without associated enablers would probably not behave effectively in long periods of stressful cross-cultural exchanges. During challenging and uncertain cross-cultural engagements, personality traits could be the main component influencing behavior (Abbe et al., 2007).
Finally, Reid, Kaloydis, et al. (2012) established six core competencies in the latest version of the DLO framework: inclusiveness, patience, tolerance for uncertainty, cultural learning, self-regulation, and self-awareness. Ten core enablers included tolerance for ambiguity, self-efficacy, inquisitiveness, willingness to engage, openness to experience, self-efficacy, inquisitiveness, resilience, emotional stability, and leveraging personal attributes. Some enablers were applied to more than one core competency (see Table 3).

Table 3

<table>
<thead>
<tr>
<th>Framework for Understanding Cross-Cultural Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core competencies</strong></td>
</tr>
</tbody>
</table>
| Inclusiveness | Tolerance for ambiguity  
Self-efficacy |
| Patience | Inquisitiveness  
Willingness to engage  
Openness to experience  
Self-efficacy |
| Tolerance for uncertainty | Self-efficacy |
| Cultural learning | Inquisitiveness  
Openness to experience  
Self-efficacy |
| Self-regulation | Resilience  
Emotional stability |
| Self-awareness | Leveraging personal attributes  
Self-efficacy |

This was the first time supporting enablers were connected with each of the core competencies with some of those enablers associated with more than one core competency in the DLO framework.

**Limitations**

Though much work has been done to refine this framework for military cross-cultural competence, many limitations have continued to exist in not only the DLO model but generally across all models. These limitations have included: (a) imprecise constructs; (b) overlap and deficient definitions of key framework components such as performance measures and antecedents, and KSAOs; (c) imprecise description of the causal order of constructs; and (d) inadequate description of a member’s military specialty training, experience, rank, and similar factors (Gabrenya, Griffith, et al., 2012). For example, when attempting to model competency, are competencies composed of KSAOs, or do KSAOs precede competencies; if the KSAOs precede the competencies, what precedes the KSAOs? Another example of weaknesses in these models has been failure to identify causal relationships between competencies themselves or between antecedent and competency variables. Yet, these models have assumed a causal relationship among these variables with combinations of enablers and competencies; additionally, these models have been implicit in competency hierarchies identifying gaining and follow-up application of these KSAOs (Gabrenya, Mouskarzel, et al., 2012). The lack of accuracy in the relationship between reported KSAOs by those surveyed and their actual performance has been another problem related to KSAOs based on challenges with cross-cultural competence constructs. Finally, some critics have pointed out these models have failed to take an individual’s experience and training, and other variables related to a person’s professional development into consideration. For example, an individual’s specialty field, rank, and other
service-related attributes (i.e., variables) have not been factored into the models for military personnel, which would involve creating the right model composition, similar to creating content validity in test development (Gabrenya, Griffith, et al., 2012).

**Summary**

Various cross-cultural competence models have been developed as five different types: co-orientation, adaptation, causal-path, development, and composition. After examining existing models, the U.S. military began to develop their own models; the most recent model was a hybrid of: (a) compositional, identifying attributes constituting cross-cultural competence such as KSAOs and (b) developmental, emphasizing phases of development or maturity. However, many limitations have remained for all cross-cultural competence models, including the most recent DLO model, hindering their predictive and explanatory capabilities.

**Assessing Cross-Cultural Competence**

Cross-cultural competence research has also developed a variety of assessments across a variety of fields aligning with the previously discussed models. Consensus in the literature has shown significant methodological and validity issues in these assessments. Because of these limitations, better assessments need to be developed to mitigate these issues. However, assessments have not been improved, partly due to the required level of resources. The military community has developed assessments aligning best with their mission of cross-cultural engagement, but they have suffered from these same limitations.

**Military Cross-Cultural Competence Assessments**

The military reviewed many cross-cultural competence assessments when they began to examine cross-cultural competence models and assessments in recent years (Abbe et al., 2010; Abbe et al., 2007; Gabrenya, Griffith, et al., 2012; Gabrenya, Mouskarzel, et al., 2011; Ross &
Thornson, 2008). However, none of the existing cross-cultural competence measures were adequate to measure military cross-cultural competence as indicated in the DLO framework. In their comprehensive analysis, Gabrenya, Griffith, et al. (2012) identified and evaluated 33 instruments for construct, face, and criterion validity; they stated there was a serious lack of satisfactory instruments as all of them had inadequacies and shortcomings. Therefore, there was no instrument to measure military cross-cultural competence due to insufficient quality or validation evidence. Additionally, necessary characteristics for military service members working in cross-cultural environments are much different than those in other professions such as students or healthcare professionals in the same environment.

Although they have not yet been adequately examined by supporting research and validation, military-sponsored research has established three instruments derived from the DLO framework concentrating on military cross-cultural competence: (a) Cross-Cultural Competence Self-Assessment (Sudduth, 2012), (b) Cross-Cultural Competency Inventory (Ross et al., 2010), and (c) Cross-Cultural Assessment Tool (McCloskey, Behymer, et al., 2012).

The Cross-Cultural Competence Self-Assessment is a 62-item survey measuring eight dimensions from instruments demonstrating validity: (a) self-awareness, (b) self-regulation, (c) acquisition of cultural knowledge, (d) cultural perspective-taking, (e) communication, (f) self-efficacy, (g) interpersonal skills, (h) and cultural relativism (Sudduth, 2012). Three of these eight dimensions were also found in Ross et al. (2010) and McCloskey et al. (2012): cultural knowledge, self-efficacy, and interpersonal skills. The other five were exclusive to Sudduth’s (2012) research, and three of them—stress-resilience, inclusiveness, and inquisitiveness—connected directly to the DLO framework; the other two dimensions, optimism and suspending judgment, were discussed extensively in the research literature.
The Cross-Cultural Competency Inventory is a 47-item survey measuring six dimensions: (a) willingness to engage, (b) cognitive flexibility and openness, (c) emotional regulation, (d) tolerance and uncertainty, (e) self-efficacy, and (f) ethnocultural empathy; all six connected directly to the DLO framework (Ross et al., 2010). The included lie-scale, which excluded responses failing to meet the criteria, and the self-efficacy dimension supporting enabler undergirding of five of the six core competencies are unique to this instrument (Abbe et al., 2007; Reid, Kaloydis et al., 2012).

Finally, the Cross-Cultural Assessment Tool (C-CAT) was the most comprehensive instrument and includes five dimensions: (a) cultural maturity, (b) cognitive, (c) flexibility, (d) interpersonal skills, (e) cultural knowledge, and (f) cultural acuity (McCloskey et al., 2012). This assessment was developed most recently and provided the most comprehensive version of the DLO framework for assessing military cross-cultural competence. Two additional assessments, the Situational Judgment Test (SJT) and a scenario-based assessment, were combined with the cross-cultural competence assessment to help mitigate limitations inherent in self-reporting. Based on individual military experiences, the SJT was created using critical task analysis and real-world cross-cultural engagement incidents. The scenario-based assessment was based on McCloskey et al.’s (2012) five dimensions. Additionally, peer and supervisory rating reports were developed to measure performance compared to the C-CAT assessment.

Limitations

Consensus among these reviews showed these assessments were methodologically flawed and lacked validity because they were all based on self-reporting data (Gabrenya, Griffith, et al., 2012). For example, the Cultural Intelligence Scale (CQS) using self-assessments of competencies, behaviors, and attitudes to show cultural intelligence, inadequately mediated
between antecedent and criterion variables (Gabrenya, Griffith, et al., 2012); hence, CQS inadvertently evaluated constructs such as self-efficacy rather than assessing cultural intelligence.

A significant limitation is these assessments have a strong cognitive emphasis. However, in addition to cognitive factors, cross-cultural competence also includes affective components (e.g., emotion control) and behavioral components (e.g., relational skills); therefore, future assessments should include not only cognitive factors, but affective and behavioral factors as well to improve cross-cultural competence models (Gabrenya, Griffith, et al., 2012). Finally, another limitation of the current models is they are mainly static, and individuals respond to the assessment in a testing context. However, cross-cultural engagements are complex and dynamic, entailing more active and engaged behavior and including a variety of factors such as distraction, stress, ambiguity, and emotion.

A more robust assessment of cross-cultural competence would include three sets of variables: (a) antecedent variables or enablers, (b) individual competencies, and (c) performance outcomes by which the model’s criterion validation can be performed (Gabrenya, Griffith, et al., 2012). New measures are needed to improve overall measurement, following two general guidelines: (a) expanding scope of the measurement and (b) developing a more dynamic measurement (Gabrenya, Griffith, et al., 2012).

Additionally, although there are many instruments, researchers have had little basis to determine their predictive power because comparisons among these measures have only been rudimentary and their redundancies have not been established. There have been no reasonable options given current models and assessments and their known limitations, including peer or
expert assessments as they would involve considerably more time and resources to develop and administer (Gabrenya, Griffith, et al., 2012).

**Summary**

Cross-cultural competence assessments have been developed across a variety of fields. All assessments have suffered from similar limitations in validity and construct coverage of the instruments. These limitations have included: (a) assessments have been strong in cognition but have not factored in affective and behavioral components; (b) assessments have been static, and cross-cultural competence engagements should be dynamic; and (c) predictive power of assessments have not been determined. For example, relying on self-assessments focused on explicit, declarative knowledge does not consider more implied attributes or how an individual uses attributes such as affective and skill-based variables. For example, lying could be an issue with self-reporting as the respondent wants to convey a good impression rather than being honest; this behavior has demonstrated a negative effect on criterion or construct validity (Converse et al., 2009). An additional issue with self-reporting has been individuals’ inability to convey definitive self-assessments of skill, ability, knowledge, or other related competency constructs. Additionally, there has been consensus in the literature stating cross-cultural competence assessments need to be more robust by broadening the measurement spectrum and incorporating more dynamic measurements. Assessments have not yet been developed for Christian missions; however, the most recent military assessment would make the most sense to explore.

**Conclusion and Implications for Future Research**

Cross-cultural competence research began in mid-20th century when researchers examined U.S. students and peace corps volunteers studying and working abroad. Research has
been done since then in other fields such as business, healthcare, and the military, but little has been done in the field of Christian missions. This literature review revealed the need for cross-cultural competence improvements among missionaries and the need for cross-cultural competence models and assessments. Though the field of Christian missions has lacked cross-cultural competence models or assessment research, the military has developed models and assessments most relevant to the field of Christian missions. However, the current cross-cultural competence models and assessments have had several limitations, reducing their predictive capability; to mitigate these limitations, cross-cultural competence models and assessments need further development.

A few emerging takeaways from this literature review have shed light on areas for future research and are worth noting. First, the field of cross-cultural competence research began recently with development of models and assessments over the last 15 years. Second, all models have been self-reporting except for the latest military model, which included additional measurements to help mitigate some of the limitations of the models and their corresponding assessments. Limitations of the models have included: (a) imprecise constructs; (b) overlap and deficient definitions of key framework components such as performance measures, antecedents, and KSAOs; (c) imprecise description of the causal order of constructs; and (d) inadequate description of a member’s military specialty training, experience, rank, and similar factors. Limitations of the assessments have been due to their self-reporting nature. Third, due to these limitations, the current models and assessments have been inadequate and need to be modified to broaden the measurement spectrum and incorporate more dynamic measurements. Fourth, comparisons among current measures have been only rudimentary and their redundancies have
not been established; therefore, researchers have had little basis to determine the predictive power of these instruments.
CHAPTER THREE: METHODOLOGY

Research Methodology

This study used a convergent parallel mixed methods design. The quantitative portion of the study used a cross-sectional, descriptive correlational research design using survey instruments to gather demographic data and attribute profiles from each respondent. These data were used to identify individuals in the top or bottom quintile of each attribute distribution, and individuals were then labelled as superior or substandard performers for each attribute, respectively. The quantitative methodology I used for my dissertation research was influenced by Newson’s (2020) research using these instruments to examine cross-cultural competence of individuals in the Navy special forces. The qualitative portion of the study used analysis of data through narrative methodology; data were gathered independently from data gathered for the quantitative portion of the study. My intent was to examine if the qualitative findings would support or challenge the quantitative findings.

The research design aligning with the study’s goals was a convergent parallel mixed methods design. In this design, “the researcher collects both quantitative and qualitative data concurrently and then compares these two data bases to determine if there is convergence, differences, or some combination” (Creswell, 2014, p. 213). This method is used to help offset any weaknesses inherent in any one method where the results are compared in the discussion section (Creswell & Clark, 2011). The design used for the quantitative portion of this study was a descriptive correlational research design using survey instruments. This design “provides a quantitative or numeric description of trends, attitudes or opinions of a population by studying a sample of that population” (Creswell, 2014, p. 201). Leedy and Ormrod (2010) indicated a correlational method of research examines the relationship between variables in the same
population. Creswell (2008) noted research designs comparing the relationships between variables to examine their correlational attributes are “conducted when researchers want to explore the extents to which two or more variables co-vary, that is, where changes in one variable are reflected in changes in the other” (p. 358). Thus, using this method for the quantitative portion of this study allowed me to examine the differences between superior and substandard performers relative to scores across the study population using regression analysis. The design for the qualitative portion of the study was a case study using narrative analysis. So, using this method for this study allowed me to examine the differences between superior and substandard performers relative to scores across the study population using regression analysis and comparing results to qualitative data gathered from interviews.

Population

The focus of the quantitative portion of the study was on cross-cultural competence factors at an individual level of analysis. The population of interest was 220 missionaries in the U.S. Association of Vineyard Churches (USAVC) who have been assigned to and were actively developing indigenous leaders cross-culturally in countries outside the United States. These 220 leaders were the sample frame for this study. Many of the leaders in this frame were ordained clergy, and most lead their own churches, were on a church staff, or were church lay leaders in the United States. These individuals had various levels of cross-cultural experience and were actively involved in developing indigenous leaders in approximately 76 countries.

For the qualitative portion of my study, I used purposive sampling to interview four indigenous leaders who have spent time with some of the missionaries from the sample in the quantitative portion of my research. Given the small number of interviewees, I have
acknowledged this was a modest effort at triangulation and did not provide definitive results about consistency. Prior debates about the merits of triangulation methods have revealed ensuing results to be inconsistent and even contradictory when these methods have been used many times (Mathison, 1988). Mathison (1988) further stated:

We attempt to make sense of what we find and that often requires embedding the empirical data at hand with a holistic understanding of the specific situation and general background knowledge about this class of social phenomena. This conception shifts the focus on triangulation away from a technological solution for ensuring validity and places the responsibility with the researcher for the construction of plausible explanations about the phenomena being studied. (p. 17)

So, although only four indigenous leaders were interviewed, and I acknowledge the qualitative portion of the study was a modest effort at triangulation, these data could still have revealed consistencies or inconsistencies with results from the quantitative portion of the study.

**Data Collection Procedures**

For the quantitative portion of the study, USAVC missions leaders were asked via email to complete the web-based instruments and received two additional reminder emails. Based on Bartlett et al.’s (2001) statement, a sample frame of 220 would need a minimum of 142 respondents for a margin of error of 5%, yielding a 65% response rate. However, only 73 missionaries responded to the survey, equating to about a 33% response rate. The low response rate could have been caused by a couple factors. First, the COVID-19 global pandemic could have contributed to the low response rate. Second, USAVC, the missions organization, and the people asked to take this survey were going through a major reorganization effort during the time of this research, causing significant uncertainty among missionaries about the future of both
organizations. Though the sample size was small, I used purposive sampling to choose four indigenous leaders from different countries for the qualitative interviews.

I used three instruments: (a) a survey validated to assess cross-cultural competence factors (McCloskey et al., 2012; Ross et al., 2010; Sudduth, 2012, see Appendix A), and (b) a survey to assess cognition style factors (Thompson, 1998, see Appendix B), and (c) a demographic survey I developed for this study (see Appendix C). The cross-cultural assessment instrument was a combination of three instruments used in three Department of Defense sponsored assessment studies: (a) the Cross-Cultural Assessment Tool (McCloskey et al., 2012), (b) the Cross-Cultural Competence Self-Assessment (Sudduth, 2012), and (c) the Cross-Cultural Competence Inventory (Ross et al., 2010). These instruments are described in more detail in the next section.

For qualitative data collection, I selected four indigenous leaders who have been developed personally by some of the missionaries I examined in my quantitative study. I contacted the leaders via email and set up a mutually agreed upon time to conduct semistructured interviews with them remotely using the online video communication software application, Zoom. They were asked, “what personal attributes should a missionary from the United States have to make them effective at crossing from their culture over to your culture to develop indigenous leaders?” These interviews were recorded, and transcripts were generated using the Zoom transcription tool. Because Zoom’s transcription capability was not perfect, the transcripts were reviewed and edited for readability to obtain the final transcript for each interview.

Data Collection Instrumentation

For the quantitative portion of the study, I used three instruments: two separate self-assessment instruments including a cross-cultural assessment and a cognition-style assessment,
and a demographic survey, Appendices A, B, and C, respectively. It took participants about 45 minutes to complete the three instruments.

**Cross-Cultural Competence Factors**

The first instrument, the Cross-Cultural Competence Factors, was drawn from three Department of Defense studies: (a) the Cross-Cultural Assessment Tool (McCloskey et al., 2012), (b) the Cross-Cultural Competence Self-Assessment (Sudduth, 2012), and (c) the Cross-Cultural Competence Inventory (Ross et al., 2010). The first instrument consisted of 86 total items across 11 subscales focused on cross-cultural competence and a lie scale. The lie scale was developed to determine if survey participants were truthful with their responses. Participants who failed the lie criteria were excluded from the study (Webster & Kruglanski, 1994).

**Cross-Cultural Assessment Tool.** The cross-cultural assessment tool, drawn from McCloskey et al. (2012), was the first part of this three-part instrument; it included 44 items representing five subscales: cultural interest (six items), cultural relativism (10 items), cultural acuity (eight items), relationship orientation (seven items), and interpersonal skills (13 items). These five constructs were defined as follows (McCloskey et al., 2012): (a) cultural interest involves one’s willingness to learn about and engage with indigenous people to enable mission success; (b) cultural relativism refers to an ability to understand and accept cultural differences and the appropriate means and responses produced by different cultures; (c) cultural acuity involves the ability to assess others’ views, situational activities, and the impact of cultural actions on the mission; (d) relationship orientation measures tendency to value personal relationships; and (e) interpersonal skills focus on the ability to enable interactions leading to a successful mission. The Cronbach’s alpha for these subscales were .73, .80, .70, .71, and .87, respectively.
This instrument was designed to examine the cross-cultural competence of U.S. Army soldiers working in other countries and contained 44 questions. Some of the 44 original questions were rewritten for this research; 23 questions were rewritten because original words specifically related to military or military operations. For example, many of these questions included the word deployment; for the military, this word means a period of weeks or months a person is away from home working to support military operations, usually overseas. In the modified survey, questions with the word deployment were replaced with missions trip, meaning the time the cross-cultural leader spends away from home and in the indigenous leader’s country. Many other questions were rewritten but the original intent of the questions was maintained. So, the modified instrument used for the research was composed of 44 Likert-scale (6-point) items ranging from 1 (strongly disagree) to 6 (strongly agree). Figure 1 shows the path diagram for the cross-cultural competency instrument. The items in yellow indicate the 23 questions including military-related words. Appendix A contains the modified 44-item instrument as I was given permission to modify the instrument by M. McCloskey (personal communication, February 12, 2021).
**Figure 1**

*Cross-Cultural Competency – Path Diagram*

**Cross-Cultural Competence Self-Assessment.** The second part of the three-part instrument was the cross-cultural competence self-assessment taken from Sudduth (2012),...
including five subscales: (a) stress resilience (six items), (b) inclusiveness (seven items), (c) inquisitiveness (six items), (d) optimism (six items), and (e) suspending judgment (five items). These five constructs were defined as follows (Sudduth, 2012): (a) stress resilience is the ability to tolerate emotionally exhausting, frustrating, or shocking situations; (b) inclusiveness is the tendency to accept and include people and things based on commonalities and an appreciation of differences; (c) inquisitiveness is the “tendency to take an active pursuit in the understanding of ideas, values, norms, situations, and behaviors that are new and different” (Sudduth, 2012, p. 1); (d) optimism sees “problems as solvable challenges and as exciting learning opportunities” (Sudduth, 2012, p. 1); and (e) suspending judgment is the ability to withhold judgment until enough information is available and to perceive information neutrally. Sudduth (2012) did not report Cronbach’s alpha for these subscales.

Cross-Cultural Competence Inventory. The third part of the first instrument and the last two subscales were from Ross et al. (2010); they included self-efficacy (eight items) with a Cronbach’s alpha of .86, and a lie scale (five items; see Figure 2).
Cognition Style Factors

The second instrument, which examined cognition style factors (see Figure 3), was developed by Thompson (1998) and has four subscales, totaling 66 items. The first subscale, personal need for structure (12 items), had a Cronbach’s alpha between .77 and .82 across these items. The second subscale, personal fear of invalidity (14 items), had Cronbach’s alpha between .76 and .83 across these items. The third subscale, need for cognition (18 items), had a Cronbach’s alpha between .83 and .94. Finally, the last subscale, rigidity (22 items), had Cronbach’s alpha between .58 and .73 across those items. These four constructs were defined as follows (Thompson et al., 1998): (a) personal need for structure is a “need to have some guiding knowledge or answer on a topic; any answer being preferable to no answer at all” (Thompson et
al., 1998, p. 2); (b) personal fear of invalidity refers to the concern for possibly making errors, which could lead to uncertainty between options and a lower subjective confidence in one’s own decisions; (c) need for cognition relates to the need for difficult cognitive tasks which is seen as a challenge; (d) rigidity is a continued persistence in actions that no longer seem to be adequate to meet a challenge or solve a problem. A Likert-scale (6–8 point) was used for this instrument (see Figure 3).

**Figure 3**

*Cognition Style Factors – Maximum and Minimum Scores*

Through my dissertation research, I examined attribute profiles of the USAVC missions leaders who were superior and substandard performers as defined by sample mean scores, and the relationship between demographic features and cognition style factors and individual scores in cross-cultural competence. The unit of analysis was individual performance in the cross-cultural competence assessment. Self-reported cross-cultural performance was the distinguishing
variable in the assessment, specifically performance in the top and bottom 20th percentiles. Respondents who scored both superior and substandard in the assessment were determined by distribution analysis. Attribute profiles for respondents in the top and bottom 20th percentiles were determined by cutoff scores for each factor of cross-cultural competence and cognition style. The cutoff scores for respondents assessed as superior and substandard were applied to the study population.

**Data Analytics**

**Data Analysis Procedures**

The survey’s psychometric properties were evaluated examining both reliability and validity. As previously discussed, I modified the first part of the cross-cultural competence assessment. The original instrument developed by McCloskey et al. (2012) had 44 items in five subscales: cultural interest (six items), cultural relativism (10 items), cultural acuity (eight items), relationship orientation (seven items), and interpersonal skills (13 items); Cronbach’s alpha for these subscales were .73, .80, .70, .71, and .87, respectively. These values were all above .70 demonstrating sufficient internal consistency reliability or interrelatedness of items in each of the modified subscales (Cronbach, 1951; DeVellis, 2012).

My analytic plan for the study entailed logistical regression analysis; the dependent variables were superior and substandard cross-cultural performers (assigned a 1 or a 0, respectively) and independent variables were results from the cross-cultural competence assessment, cognition style assessment, and demographic survey. This was done to determine the attribute profiles of cross-cultural superior and substandard performers and the relationship between demographic features and cognition style factors and individual scores in a cross-cultural competence.
The logistical regression model was represented as follows:

\[ \text{SCCP} = a_0 + a_1 A_1 + a_2 A_{2\text{CA}} + a_3 A_{3\text{CSA}} \]

\[ \text{SSCCP} = a_0 + a_1 A_1 + a_2 A_{2\text{CA}} + a_3 A_{3\text{CSA}} \]

Where:

\( \text{SCCP} = \) superior cross-cultural performers = 1

\( \text{SSCCP} = \) substandard cross-cultural Performers = 0

\( A_1 = \) demographics

\( A_{2\text{CA}} = \) cross-cultural competence assessment

Where \( A_{2\text{CA}} = \) cultural interest + cultural relativism + cultural acuity + relationship orientation + interpersonal skills + stress resilience + inclusiveness + inquisitiveness + optimism + suspending judgment + self-efficacy

\( A_{3\text{CSA}} = \) cognition style assessment

Where \( A_{3\text{CSA}} = \) personal need for structure + personal fear of invalidity + need for cognition + rigidity

Qualitative research generates narrative or storied data. To analyze these data, I used an approach called analysis of narrative, which slices up narrative data and places it into categories using coding techniques (Polkinghorne, 1995). This qualitative analysis allows for a more in-depth look at data, or thick description (Lincoln & Guba, 1985). Further, narrative analysis is how people get meaning from their experiences or how they structure the telling of their stories (Glesne, 2016). So, the purpose of narrative analysis is not simply to produce a list of events but to make sense of the events and demonstrate the importance of them in the context of the story (Polkinghorne, 1995). These codes were then used to designate categories generated inductively as narrative data was analyzed.
Limitations and Delimitations

Limitations

Regarding the quantitative portion of the study, Gabrenya, Moukarzel, et al. (2012) provided a summary of the limitations of current cross-cultural competency models and instruments; they reviewed 34 instruments assessing cross-cultural competence and found them to have “conceptual ambiguity, a lack of causal linkages between enablers and competencies, and inadequate assessment measures” (p. 9). Selmeski (2007) commented observed measures were not applied appropriately to culture as they focused too much on surface behaviors and were unable to integrate deeper cultural knowledge. Due to resource limitations for this study (e.g., time and finances), I was constrained to use the current measures. However, this study furthers cross-cultural competence research and will be important for follow-up research leading to improved models and assessments.

The current self-assessment tools are limited as they have questionable validity; however, currently there are no other assessments for cross-cultural competence. As stated earlier, research to develop 360-type assessments including peer assessments and surveys to be completed by the leaders who have been developed by missions leaders are outside of the scope of this study due to resource limitations. These assessments and self-assessments would improve the validity of current cross-cultural competence assessments. Secondly, current assessments are also context specific, and may vary when completed by the same individuals in a different cultural context. Further, correlation does not imply causation. Many other possible factors aside from demographic features, cross-cultural competency, and cognition style factors could determine a person’s effectiveness in developing leaders cross-culturally. Finally, like many cross-sectional studies with a sample size much smaller than the actual population size, this study examined only
a limited number of people developing leaders cross-culturally from just one mission or cross-cultural organization. These limitations have weakened the potential of cross-cultural competency models to predict outcomes and develop applications of these assessments.

For the qualitative portion of this study, I interviewed only four indigenous leaders due to time and resource constraints. Therefore, results cannot be generalized in a strict scientific sense. Also, I acknowledge the research was a modest effort at triangulation and would not provide definitive results about consistency. Additionally, the qualitative data cannot be seen as typical of anyone else’s views. However, gathered and analyzed qualitative data were still valuable to shed light on the quantitative data gathered and analyzed. Finally, because the data were gathered and put into categories as any research study would, I may have introduced bias in the process of converting the data into categories.

**Delimitations**

For the quantitative part of the study, I surveyed current USAVC missions cross-cultural leaders actively developing indigenous leaders living and working in their own cultures. For the qualitative portion, I had time and resources to interview only four indigenous leaders.

**Significance of the Study**

Regarding the quantitative portion of the study, Gabrenya, Moukarzel, et al. (2012) pointed out more research was needed to develop integrated cross-cultural competence models to incorporate competencies with traditional causal modeling and improved psychometric measures not reliant on self-referent tools. This study will add to the body of knowledge assessing cross-
cultural competence, as no known study has examined cognition style factors as independent variables related to performance in cross-cultural competence factor assessments of Christian missionaries. Further, no studies have examined cross-cultural competence in this profession. Results from this study could potentially inform cross-cultural training and development and selection of missions cross-cultural leaders to improve their competence and effectiveness. Finally, this study could assist in future studies leading to better prediction models to improve selection and training methods.

Regarding the qualitative portion, Donmoyer (1990) and Lincoln and Guba (1985) argued generalizability, as the term has been used in social science traditionally, was not necessary for a qualitative study to be significant or important to add to the body of knowledge of social phenomenon. Lincoln and Guba (1985) argued the term transferability was a better term to use than generalizability in these kinds of qualitative studies. They argued consumers determined if the study and results were possibly transferable to their own context by asking whether the context in which the study was conducted was sufficiently similar to the consumer’s context, supporting a hypothesis showing the same results would occur in the consumer’s context.

**Potential Contributions of the Study**

The results from this study will be shared with the USAVC. Current processes for selection, training, and placement could be modified to improve overall cross-cultural competency of USAVC missionaries based on the study’s results. I plan to present results of this study to the USAVC National Board of Directors and at an upcoming International Leadership Association Conference; I will also publish some aspects of this research in a scholarly journal.
This study contributes to the body of knowledge of cross-cultural competence and could lead to improving ways to assess and improve cross-cultural competence.
CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

This mixed methods research focused on two groups of people. The quantitative portion of this study examined a small population of U.S. cross-cultural missionary workers working for the U.S. Association of Vineyard Churches’ (USAVC) missions organization to develop indigenous leaders from countries other than the United States. Particularly, the research examined if certain attributes of these cross-cultural mission workers correlated to their performance in a cross-cultural competence assessment. The qualitative portion of the study examined a small group of indigenous leaders engaged in cross-cultural leadership development relationships with missionaries from respondents in the quantitative component of the study. The purpose of the research was to determine if there was any correlation between the missionaries’ individual scores in their cross-cultural competence assessment and their demographic and cognition style factors and to determine whether the qualitative data supported or challenged the quantitative results.

First, this chapter reviews the demographics, attribute profiles, and regression analysis model results of the sample population in the quantitative study. Mean scores of cross-cultural competence and cognition style factors were compared to attribute profiles of respondents scoring in the top 20% and bottom 20% on the assessment to examine the differences between how these two groups scored. Then, using linear and binary logistic regression analysis, the attribute profiles of both the top and bottom 20% of the sample population were compared to determine if any of the demographic or cognition style factors were significant in predicting any of the cross-cultural competence factors. Next, results of the regression models are discussed, with 11 cross-cultural competence factors as dependent variables at an individual level of
analysis and demographic and cognition style factors as the independent variables. Results demonstrated there were significant correlations for nine of the 11 cross-cultural factors.

Finally, qualitative results of the analysis of narrative of the interviews conducted with four indigenous leaders are discussed. As mentioned, I acknowledge the qualitative portion of the study was a modest effort at triangulation; however, these data revealed consistencies and inconsistencies with results from the quantitative portion of the study. Results from the quantitative and qualitative portions of this study could help to determine potential training deficiencies. This chapter concludes with a summary of the data analysis.

**Survey Methodology**

The Qualtrics, web-based assessment had 169 questions with a demographic survey and two self-assessments (i.e., a cross-cultural competence assessment and a cognitive style assessment), and took approximately 45 minutes to complete. A total of 67 of the 73 missionaries who took the survey were used in this study. Survey results from six participants were not used because one did not complete the survey and five failed the lie scale test, meaning their lie scale scores did not meet the required score. This followed the lie scale methodology used by Ross et al. (2010) and developed by Webster and Kruglanski (1994). The lie test was not an actual part of the assessment to determine a participant’s performance on the cross-cultural competence assessment, but it was incorporated into the assessment to help determine if any participants should be excluded based on accuracy of their responses.
Age, Gender, Ethnicity, Education, Ordained/Licensed, and Position

The average participant age was 58 years old, with a minimum age of 33, a maximum age of 73, and a standard deviation of 10 years; as depicted in Figure 4, age was skewed to the right indicating most participants were above 50 years of age. The gender balance of participants was more male than female, and the vast majority were White. Participant education levels showed 19% had no degree, 27% had a bachelor’s degree, 40% had a master’s degree, and 13% had a professional or doctorate degree (see Figure 5). Only participants with a bachelor’s degree correlated significantly with cultural interest. This correlation is discussed later in the chapter. Finally, most participants were ordained or licensed and were paid or volunteer workers in a church or parachurch organization. Other than education level, none of the other demographic factors were correlated significantly with any cross-cultural competence factors.

Figure 4

Age Distribution Across the Study Participants
Years of Ministry and Cross-Cultural Experience

The participants’ average number of years of ministry experience was approximately 33 years, with a minimum of 7, a maximum of 51, and a standard deviation of 10.6 years. This distribution was similar to and aligned with participant ages, including data skewed to the right. This factor was not correlated significantly to any cross-cultural competence (see Figure 6). Participant’s years of cross-cultural experience averaged 22.6 years, with a low of 1 year, a maximum of 55 year, and a standard deviation of 13 years. This factor did correlate significantly to one cross-cultural competence factor, stress resilience (see Figure 7).
Figure 6

*Years of Ministry Experience*

![Bar chart showing distribution of years of ministry experience.]

Figure 7

*Years of Cross-Cultural Experience*

![Bar chart showing distribution of years of cross-cultural experience.]

**Continent Worked and Number of and Weeks on Missions Trips in Last 5 Years**

Most participants worked in Asia (37%), followed by North America (30%), then Africa (19%), and finally Europe and South America at 9% and 5%, respectively (see Figure 8). All participants who worked in North America were working in Central America or the Caribbean, both considered North America. All continents correlated significantly to one or more cross-cultural competence factors. North America and Asia were correlated significantly to suspending judgement, South America and Africa were correlated significantly to inquisitiveness, South America also correlated significantly to cultural interest, and Europe correlated significantly to interpersonal skills.

**Figure 8**

*Continent Worked In*

![Bar Chart showing distribution of continent worked in](chart.png)

The average number of missions trips in last 5 years for participants was 7.6 with a low of 0, a high of 30, and a standard deviation of 6.4 (see Figure 9). Most participants (73%) took
nine or less missions trips, which on average is a little less than two trips per year. The average number of weeks on missions trips in last 5 years was 15.9 for participants, with a low of 0, a high of 120, and a standard deviation of 21.6 (see Figure 10). Almost half of the participants (47%) spent 9 weeks or less on mission trips, which is a little less than 2 weeks per year. Of these two factors, number of missions trips in the last 5 years correlated significantly to the cross-cultural competence factor, cultural interest.

**Figure 9**

*Number of Missions’ Trips in Last 5 Years*
Language Proficiency, Time Spent With Indigenous Leaders, Knowledge of Culture

Most participants (70%) had at least an elementary language proficiency, with 27% having at least a limited proficiency (see Figure 11). About 75% of participants indicated they had spent a moderate or more amount of time with indigenous leaders they were developing (see Figure 12). Neither of these two factors correlated significantly to any of the cross-cultural competent factors. For cultural knowledge, 99% of the participants indicated they had a moderate amount or greater of knowledge, with just over the majority (53%) indicating they had a lot or greater amount of cultural knowledge (see Figure 13). Cultural knowledge correlated significantly to both self-efficacy and cultural acuity.
Figure 11

*Language Proficiency*

![Distribution Percentage of Language Fluency](chart)

Figure 12

*Time Spent With Indigenous Leaders*

![Distribution Percentage of Time Spent Communicating With Indigenous Leaders](chart)
Cross-Cultural Training, How Cross-Culturally Prepared Initially and Currently

Most participants (75%) indicated they were cross-culturally trained formally or informally a moderate amount or greater (see Figure 14). This factor was correlated significantly to two cross-cultural competence factors, inclusiveness and cultural interest. Most participants (56%) indicated they were cross-culturally prepared moderately or greater when they began as missionaries, but this factor was not correlated significantly to any of the cross-cultural competence factors (see Figure 15). In addition, most participants (88%) indicated they were moderately or greater prepared cross-culturally currently (see Figure 16). This factor correlated significantly to one cross-cultural competence factor, relationship orientation.
Figure 14

*Amount of Cross-Cultural Training*

![Distribution Percentage of the Amount of Cross-Cultural Training Received](image)

Figure 15

*How Cross-Culturally Prepared Initially*

![Distribution of How Cross-Culturally Prepared Initially](image)
How Cross-Culturally Prepared Currently

This research contained two types of attribute profiles, cross-cultural competence factors and cognition style factors. Radar charts were used to depict the mean scores of each factor in each attribute profiles.

Cross-Cultural Competence Attribute Profile

The Likert scale ranged between the minimum score (0), *strongly disagree*, and the maximum score (6), *strongly agree*. The 11 cross-cultural competence factor descriptions and definitions were:

- Relationship orientation (7 items) refers to the tendency to value personal relationships.
- Cultural acuity (8 items) depicts the ability to accurately assess the views of others, situations, and the impact of actions taken on others.
• Cultural relativism (10 items) means the ability to recognize and accept cultural differences and corresponding different approaches and responses that various cultures generate.

• Interpersonal skills (13 items) constitute the tendency to consistently interact with others in a positive way.

• Cultural interest (six items) represents the willingness to learn about and interact with a particular people group or culture.

• Inquisitiveness (six items) exhibits the tendency to take an active investigation in understanding new and different ideas, values, norms, situations, and behaviors.

• Suspending judgement (five items) represents the ability to withhold judgement until enough information becomes available and to perceive information unbiasedly.

• Optimism (six items) refers to the expectation of positive outcomes.

• Stress resilience (six items) indicates the ability to tolerate emotionally exhausting, frustrating, or shocking situations.

• Inclusiveness (seven items) means the tendency to accept and include people and things based on commonalities and an appreciation of differences.

• Self-efficacy (eight items) refers to belief a goal or an effect can be accomplished.

The mean scores for each of the 11 cross-cultural competence factors are depicted in Table 4. The highest mean score ($M = 5.20$) was for the factor of relationship orientation, and the factor with the lowest mean score ($M = 2.11$) was cultural relativism. The mean scores for each of the 11 factors are also shown in Figure 17.
Table 4

Means Scores for Cross-Cultural Competence Factors

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship orientation</td>
<td>5.20</td>
</tr>
<tr>
<td>Cultural acuity</td>
<td>2.95</td>
</tr>
<tr>
<td>Cultural relativism</td>
<td>2.11</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>4.31</td>
</tr>
<tr>
<td>Cultural interest</td>
<td>4.53</td>
</tr>
<tr>
<td>Inquisitiveness</td>
<td>4.52</td>
</tr>
<tr>
<td>Suspending judgement</td>
<td>3.70</td>
</tr>
<tr>
<td>Optimism</td>
<td>2.81</td>
</tr>
<tr>
<td>Stress resilience</td>
<td>2.85</td>
</tr>
<tr>
<td>Inclusiveness</td>
<td>4.50</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>4.70</td>
</tr>
</tbody>
</table>

Figure 17

Cross-Cultural Competence Mean Scores

Cognition Style Attribute Profile

The cognitive style factors are shown in Table 5. The Likert scale ranges were also depicted with the range between the minimum score (0), *strongly disagree*, and the maximum
score (6 or 8), *strongly agree*. Thompson (1998) developed this scale, including the factor ranges.

Table 5

*Ranges for Cognition Style Factors*

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal need for structure</td>
<td>0–6</td>
</tr>
<tr>
<td>Need for cognition</td>
<td>0–8</td>
</tr>
<tr>
<td>Rigidity</td>
<td>0–6</td>
</tr>
<tr>
<td>Personal fear of invalidity</td>
<td>0–6</td>
</tr>
</tbody>
</table>

The four cognition style factor descriptions and definitions are:

- **Personal need for structure** (12 items) refers to the need to possess some guiding knowledge of or response to a subject, preferably having some response rather than none. Generally, a lower score would be preferred in unclear or unfamiliar situations or contexts, which can occur in cross-cultural settings.

- **Need for cognition** (18 items) refers to the inclination to take on challenging tasks entailing a significant amount of thinking or are cognitively difficult. Generally, higher scores would be preferred in unclear situations or contexts but at times someone with high scores could be slow to make decisions (Petty et al., 2009).

- **Rigidity** (22 items) refers to desire to maintain a belief, opinion, or understanding that does not seem to be always helpful for different situations or contexts. Generally, people with high rigidity often find it difficult to reconcile differing and often inconsistent facts about a situation or topic. In unclear or unfamiliar situations, like in many cross-cultural contexts, someone who tends to be more rigid than others, may not have the ability to reconcile cultural differences and the corresponding different
approaches and responses that various cultures generate. So, a low score is preferred in unfamiliar or unclear settings.

- Personal fear of invalidity (14 items) constitutes the tendency to have a sense of fear or apprehension about deciding and the chance of making an incorrect judgment or decision. Generally, people with high scores often waver as they consider possible decisions and usually take longer to finally make up their mind. Typically, the lower the score the better in uncertain or unfamiliar settings.

The mean scores for each of these four factors are shown in Table 6 and depicted in Figure 18. The factor of need for cognition had the highest mean score ($M = 4.21$), and the factor of personal fear of invalidity had the lowest mean score ($M = 3.29$).

**Table 6**

*Means Scores for Cognition Style Factors*

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal need for structure</td>
<td>3.63</td>
</tr>
<tr>
<td>Need for cognition</td>
<td>4.21</td>
</tr>
<tr>
<td>Rigidity</td>
<td>3.68</td>
</tr>
<tr>
<td>Personal fear of invalidity</td>
<td>3.29</td>
</tr>
</tbody>
</table>
Research Questions Findings

The three research questions in this study were:

1. For USAVC missionaries, what are the attribute profiles from the cross-cultural competency assessment, defined by sample mean scores, of these leaders who are superior and substandard performers?

2. What is the relationship, if any, between USAVC missionaries’ demographic features, cognition style factors and individual scores in cross-cultural competence?

3. How and to what extent did these qualitative data challenge or support the results of these quantitative data?

Research Question 1

The first research question examined the differences between superior performers who scored in the top 20%, and substandard performers who scored in the bottom 20% of the cross-cultural competence assessment, for both the cross-cultural competence assessment and the
cognition style factors. This comparison could potentially inform future training requirements or initiatives. Comparisons between the top and bottom 20% performers for the cross-cultural competence factors are shown in Figure 19 and the mean scores in Table 7. The cognition style factors are shown in Figure 20 and Table 8 shows the mean scores of the top and bottom 20% of responses.

**Figure 19**

*Cross-Cultural Competence Factor Mean Scores for Top and Bottom 20%*
### Table 7

**Mean Scores of Top and Bottom 20% for Cross-Cultural Competence Factors**

<table>
<thead>
<tr>
<th>Quintile</th>
<th>RO</th>
<th>CA</th>
<th>CR</th>
<th>IS</th>
<th>CI</th>
<th>INQ</th>
<th>SJ</th>
<th>O</th>
<th>SR</th>
<th>INC</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 20%</td>
<td>5.85</td>
<td>3.79</td>
<td>2.87</td>
<td>5.04</td>
<td>5.32</td>
<td>5.00</td>
<td>4.54</td>
<td>3.19</td>
<td>3.09</td>
<td>4.99</td>
<td>5.58</td>
</tr>
<tr>
<td>Bottom 20%</td>
<td>4.46</td>
<td>2.21</td>
<td>1.57</td>
<td>3.51</td>
<td>3.17</td>
<td>3.90</td>
<td>2.83</td>
<td>2.42</td>
<td>2.49</td>
<td>3.93</td>
<td>3.66</td>
</tr>
</tbody>
</table>

*Note.* RO = relationship orientation; CA = cultural acuity; CR = cultural relativism; IS = interpersonal skills; CI = cultural interest; INQ = inquisitiveness; SJ = suspending judgement; O = optimism; SR = stress resilience; INC = inclusiveness; SE = self-efficacy

### Figure 20

**Cognition Style Factor Mean Scores for Top and Bottom 20%**

![Cognition Style Factor Mean Scores for Top and Bottom 20%](image-url)
Table 8

Mean Scores of Top and Bottom 20% for Cognition Style Factors

<table>
<thead>
<tr>
<th>Quintile</th>
<th>PNS</th>
<th>NFC</th>
<th>R</th>
<th>PFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 20%</td>
<td>3.17</td>
<td>4.69</td>
<td>3.23</td>
<td>2.79</td>
</tr>
<tr>
<td>Bottom 20%</td>
<td>4.11</td>
<td>3.77</td>
<td>4.16</td>
<td>3.79</td>
</tr>
</tbody>
</table>

Note. PNS = personal need for structure; MFC = need for cognition; R = rigidity; PFI = personal fear of invalidity.

The cross-cultural competence factors with the largest difference between the top and bottom mean scores were cultural interest, suspending judgement, and self-efficacy. The factors with the smallest difference between the top and bottom mean scores were optimism, stress resilience, and inclusiveness. The mean score differences between the top and bottom 20% were moderately different for the other five factors of cultural acuity, cultural relativism, interpersonal skills, inquisitiveness, and relationship orientation. The difference of the mean scores between the top and bottom 20% for the four cognition style factors (i.e., need for structure, need for cognition, rigidity, and personal fear of invalidity) were close to the same for all four factors.

Research Question 2

Using regression analysis to further examine the differences between those who scored in the top 20% and those who scored in the bottom 20%, the second research question explored whether there were any possible correlations between the demographic or cognition style factors as independent variables, and the cross-cultural competence factors as dependent variables. Both linear and binary logistic regression were used for each of the 11 cross-cultural competence factors. Linear and binary logistic regression results are presented based on the significance level of the model results for some of the 11 factors, and linear regression models are only presented
for others. Regression models for two of the 11 cross-cultural factors (i.e., cultural relativism and optimism) did not show that any demographic or cognition style independent variables were statistically significant. In other words, there were no statistically significant correlations between two of the 11 cross-cultural competence factors (i.e., cultural relativism and optimism) and the independent demographic variables and cognition style factors.

To determine participants scoring in the top and bottom 20%, the number of scorers for each 20% was not always exact. As the sample size was 67, 20% would be 13.4 participants for the top 20% and bottom 20%, so I rounded up to 14. As a result, 14 of the 67 participants were in the top 20% and 14 were in the bottom 20% for each of the 11 cross-cultural competence factors. However, only two cross-cultural factors had the exact number of 14 participants with the highest and lowest scores for the top and bottom 20%. Some participants had the same scores for the other cross-cultural factors so 20% of the top or bottom scorers resulted in more than 14. Rather than picking 14 scores myself, I used a random number generator technique. To determine if there would be any significant differences when 14 were chosen at random, I ran a regression analysis using the three different results from the random number generator to choose the 14 scores. The results indicated there were no significant differences in the regression analysis results.

**Regression Analysis Details**

With regression models, significant correlations ($p \leq .05$) between the independent and dependent variables would indicate a one-unit change in an independent variable, thereby producing a specific corresponding change in the dependent variable. In linear regression, the estimated coefficient would indicate the amount of change occurring in the dependent variable associated with a one-unit change in the independent variable. However, a formula was used in
the binary logistic regression to determine the amount of change of the dependent variable with a
one-unit change in the independent variable. I used the following formula:

$$\hat{Y}_i = p_i = 1/(1 + e^{-u}) = e^u / (1 + e^u)$$

Where \( \hat{Y}_i \) was the estimated probability the \( i \)th case was in the category of interest and \( u \) was the
regular linear regression equation given by:

\[ u = B_0 + B_1X_1 + B_2X_2 + \cdots + B_kX_k \]

For example, to determine the corresponding change in the dependent variable (i.e.,
cultural acuity) for a one-unit change in the independent variable (i.e., cultural knowledge), the
mean score for cultural knowledge (\( M = 3.70 \)) was used for \( X_1 \) to determine the probability \( (p) \)
for cultural acuity as follows:

\[ u = B_0 + B_1X_1 \]

Where \( B_0 \) is the \( B \) constant = 12.92, and \( B_1 \) is the \( B \) coefficient for cultural acuity = 3.48,

\[ u = 12.92 + (-3.48)(3.70) \]
\[ u = 12.92 - 12.89 \]
\[ u = 0.032 \]

\[ p = e^u / (1 + e^u) \]
\[ p = 2.72^{0.032} / (1 + 2.72^{0.032}) \]
\[ p = 1.033 / (1 + 1.033) \]
\[ p = 0.51 \]

Then 1.0 was added to the mean score for cultural knowledge (3.70 + 1.0 = 4.70), and the
equation was recalculated with the new value for \( X = 4.70 \).

\[ u = 12.92 + (-3.48)(4.70) \]
\[ u = 12.92 - 16.37 \]
\[ u = -3.45 \]
\[ p = \frac{e^u}{1 + e^u} \]
\[ p = \frac{2.72^{-3.45}}{1 + 2.72^{-3.45}} \]
\[ p = \frac{0.032}{1 + 0.032} \]
\[ p = 0.03 \]

So, \( p \) decreased from .51 to .03 when the mean of cultural knowledge increased by 1.0, from 3.70 to 4.70; therefore, for a one-unit increase in the independent variable \( X \) (i.e., cultural knowledge), the dependent variable (i.e., cultural acuity) decreased by .48. The following section discussing cultural acuity used this calculation. I used similar calculations for the other binary logistic models for suspending judgement, inclusiveness, and self-efficacy to determine each of the respective estimated probabilities, using the appropriate values for each variable.

**Relationship Orientation**

The linear regression model containing all predictors was statistically significant, indicating the model distinguished between the top 20\% and bottom 20\% performers of relationship orientation. This model explained 13.7\% and 17.6\% of the variance and variation, respectively between these two groups of people in the relationship orientation factor of cross-cultural competence. Table 9 shows only one independent demographic variable made a statistically significant contribution to the model. Current cross-cultural preparation displayed an estimated coefficient of .24, indicating for every one-unit increase of current cross-cultural preparation, relationship orientation increased by a factor of .24.
Table 9

Relationship Orientation Model Data

<table>
<thead>
<tr>
<th>Variables</th>
<th>$B$</th>
<th>Coefficient of standard error</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently C2 prepared</td>
<td>.24</td>
<td>.11</td>
<td>.05</td>
</tr>
<tr>
<td>Constant</td>
<td>-.33</td>
<td>.39</td>
<td>.41</td>
</tr>
</tbody>
</table>

Note. $R^2 = .18$; Adjusted $R^2 = .14$

**Cultural Acuity**

Linear and binary logistic regression models containing all predictors were statistically significant, indicating models distinguished between the top 20% and bottom 20% performers of cultural acuity. The linear regression model explained between 58.4% and 60.1% of the variance and variation, respectively, between these two groups of people in the cultural acuity factor of cross-cultural competence. For the binary logistic model, Cox & Snell $R^2$ and Nagelkerke $R^2$ was .54 and .72, respectively. Table 10 shows only one independent demographic variable made a statistically significant contribution to the model. Culture knowledge displayed an estimated coefficient of -.48 in the linear regression model, indicating for every one-unit increase of culture knowledge, cultural acuity decreased by a factor of .48. Culture knowledge displayed a probability of -.48 in the binary logistic model, using the calculations discussed in the introduction of this section about regression analysis details, meaning for every one-unit increase of culture knowledge, cultural acuity decreased by a factor of .48.
Table 10

*Cultural Acuity Model Data*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Linear* Coefficient</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Culture knowledge</td>
<td>-.48</td>
<td>.08</td>
</tr>
<tr>
<td>Constant</td>
<td>2.31</td>
<td>.31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Logistic** Variables</th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture knowledge</td>
<td>-3.48</td>
<td>1.24</td>
<td>7.90</td>
<td>.01</td>
</tr>
<tr>
<td>Constant</td>
<td>12.92</td>
<td>4.58</td>
<td>7.97</td>
<td>.01</td>
</tr>
</tbody>
</table>

*Note.* *R*² = .60; Adjusted *R*² = .58; **Cox & Snell *R*² = .54; Nagelkerke *R*² = .72.

*Interpersonal Skills*

The linear regression model containing all predictors was statistically significant, which indicated the model distinguished between the top 20% and bottom 20% performers of interpersonal skills. This model explained between 17.9% and 21.2% of the variance and variation, respectively, between these two groups of people in the interpersonal skills factor of cross-cultural competence. Table 11 shows only one independent demographic variable made a statistically significant contribution to the model. Europe displayed an estimated coefficient of .64, which indicated interpersonal skills increased by a factor of .64 for those who worked in Europe.
Table 11

*Interpersonal Skills Model Data*

<table>
<thead>
<tr>
<th>Variables</th>
<th>$B$</th>
<th>Coefficient of standard error</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>.64</td>
<td>.25</td>
<td>.02</td>
</tr>
<tr>
<td>Constant</td>
<td>.36</td>
<td>.10</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

*Note. $R^2 = .21$; Adjusted $R^2 = .18$.*

**Cultural Interest**

The linear regression model containing all predictors was statistically significant, which indicated the model distinguished between the top 20% and bottom 20% performers of cultural interest. This model explained between 77.9% and 71.7% of the variance and variation, respectively, between these two groups of people for the cultural interest factor of cross-cultural competence. Table 12 shows five independent variables, including four demographic factors (i.e., cross-cultural training, number of missions trips, South America, and bachelor’s degree) and one cognition style factor (i.e., rigidity) made statistically significant contributions to the model. Cross-cultural training displayed an estimated coefficient of .17, which indicated cultural interest increased by a factor of .17 for every one-unit increase of cross-cultural training. Number of missions trips displayed an estimated coefficient of -.30, which indicated for every one-unit increase of number of missions trips, cultural interest decreased by a factor of .30. South America displayed an estimated coefficient of -.76, which indicated cultural interest decreased by a factor of .76 for South America. Bachelor’s degree displayed an estimated coefficient of -.32, which indicated cultural interest decreased by a factor of .32 those with a bachelor’s degree. Rigidity displayed an estimated coefficient of .75, which indicated cultural interest increased by a factor of .75 for every one-unit increase of rigidity.
Table 12

Cultural Interest Model Data

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Coefficient standard error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rigidity</td>
<td>.75</td>
<td>.161</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>C2 training</td>
<td>.17</td>
<td>.056</td>
<td>.01</td>
</tr>
<tr>
<td># of mission trips</td>
<td>-0.30</td>
<td>.008</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>South America</td>
<td>-.76</td>
<td>.292</td>
<td>.02</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>-.32</td>
<td>.134</td>
<td>.03</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.37</td>
<td>.54</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

Note. $R^2 = .78$ and Adjusted $R^2 = .72$.

Inquisitiveness

The linear regression model containing all predictors was statistically significant, which indicated the model distinguished between the top 20% and bottom 20% performers of inquisitiveness. This model explained between 32.7% and 38.1% of the variance and variation, respectively, between these two groups of people in the inquisitiveness factor of cross-cultural competence. Table 13 shows two demographic factors (i.e., Africa and South America) made a statistically significant contribution to the model. Africa displayed an estimated coefficient of -.67, which indicated inquisitiveness decreased by a factor of .67 for Africa. South America also displayed an estimated coefficient of -.67, which indicated inquisitiveness decreased by a factor of .67 for South America.
Table 13

**Inquisitiveness Model Data**

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Coefficient standard error</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>-.67</td>
<td>.20</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>South America</td>
<td>-.67</td>
<td>.31</td>
<td>.04</td>
</tr>
<tr>
<td>Constant</td>
<td>.67</td>
<td>.10</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

*Note.* $R^2 = .38$ and Adjusted $R^2 = .33$.

**Suspending Judgement**

Both linear and binary logistic regression models containing all predictors were statistically significant, which indicated models distinguished between the top 20% and bottom 20% performers of suspending judgement. The linear regression model explained between 41.3% and 46.4% of the variance and variation, respectively, between these two groups of people in the suspending judgement factor of cross-cultural competence. For the binary logistic model, Cox & Snell $R^2$ and Nagelkerke $R^2$ was .27 and .35, respectively. Table 14 shows, for the linear regression model, two demographic independent variables (i.e., Asia and North America) made a statistically significant contribution to the model. Asia displayed an estimated coefficient of .76, which indicated suspending judgement increased by a factor of .76 for Asia. North America displayed an estimated coefficient of .60, which indicated suspending judgement increased by a factor of .60 for North America. One cognition style factor (i.e., personal fear of invalidity) displayed a probability of .10 for the binary logistic model, as determined using similar calculations discussed in the introduction of this section about regression analysis details, meaning for every one-unit increase of personal fear of invalidity, suspending judgement increased by a factor of .10.
Table 14

Suspending Judgement Model Data

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Coefficient standard error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>.76</td>
<td>.19</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>N. America</td>
<td>.60</td>
<td>.20</td>
<td>.01</td>
</tr>
<tr>
<td>Constant</td>
<td>.11</td>
<td>.13</td>
<td>.40</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFI</td>
<td>3.68</td>
<td>1.16</td>
<td>5.89</td>
<td>.01</td>
</tr>
<tr>
<td>Constant</td>
<td>-11.86</td>
<td>4.88</td>
<td>5.91</td>
<td>.01</td>
</tr>
</tbody>
</table>

Note. PFI = personal fear of invalidity; *$R^2 = .46$; Adjusted $R^2 = .41$; **Cox & Snell $R^2 = .27$; Nagelkerke $R^2 = .35$.

**Stress Resilience**

The linear regression model containing all predictors for stress resilience was statistically significant, which indicated the model distinguished between the top 20% and bottom 20% performers of stress resilience. The model explained between 15.9% and 19.6% of the variance and variation, respectively, between these two groups of people, in the stress resilience factor of cross-cultural competence. Table 15 shows one independent demographic variable made a statistically significant contribution to the model. Years of cross-cultural experience displayed an estimated coefficient of .02, which indicated stress resilience increased by a factor of .02 for every one-unit increase of years of cross-cultural experience.
Table 15

Stress Resilience Model Data

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>Coefficient standard error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of C2 experience</td>
<td>.02</td>
<td>.01</td>
<td>.03</td>
</tr>
<tr>
<td>Constant</td>
<td>.06</td>
<td>.19</td>
<td>.74</td>
</tr>
</tbody>
</table>

Note. $R^2 = .20$ and Adjusted $R^2 = .16$.

**Inclusiveness**

Both linear and binary logistic regression models containing all predictors were statistically significant, which indicated the models distinguished between the top 20% and bottom 20% performers of inclusiveness. The linear regression model explained between 35% and 37.7% of the variance and variation, respectively, between these two groups of people in the cultural acuity factor of inclusiveness. For the binary logistic model, Cox & Snell $R^2$ and Nagelkerke $R^2$ was .36 and .48, respectively. Table 16 shows only one independent demographic variable made a statistically significant contribution to the model. For the linear regression model, cross-cultural training displayed an estimated coefficient of .32, which indicated inclusiveness increased by a factor of .32 for every one-unit increase of cross-cultural training. For the binary logistic model, cross-cultural training displayed a probability of .36, as determined using similar calculations discussed in the introduction of this section and regression analysis details, meaning for every one-unit increase of cross-cultural training, inclusiveness increased by a factor of .36.
Table 16

Inclusiveness Model Data

<table>
<thead>
<tr>
<th>Variables</th>
<th>Linear*</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Coefficient standard</td>
<td>p</td>
</tr>
<tr>
<td></td>
<td></td>
<td>error</td>
<td></td>
</tr>
<tr>
<td>C2 training</td>
<td>.32</td>
<td>.08</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Constant</td>
<td>-.53</td>
<td>.29</td>
<td>.08</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variables</th>
<th>Logistic**</th>
<th>SE</th>
<th>Wald</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2 training</td>
<td>1.89</td>
<td>.75</td>
<td>6.36</td>
<td>.01</td>
</tr>
<tr>
<td>Constant</td>
<td>-6.00</td>
<td>2.43</td>
<td>6.10</td>
<td>.01</td>
</tr>
</tbody>
</table>

*Note. *R² = .38; Adjusted R² = .35; **Cox & Snell R² = .36; Nagelkerke R² = .48.

Self-Efficacy

Both linear and binary logistic regression models containing all predictors were statistically significant, which indicated the models distinguished between the top 20% and bottom 20% performers of self-efficacy. The linear regression model explained between 41.8% and 46.5% of the variance and variation, respectively, between these two groups of people in the self-efficacy factor of cross-cultural competence. For the binary logistic model, Cox & Snell R² and Nagelkerke R² was .45 and .59, respectively. Table 17 shows, for the linear regression model, one demographic independent variable (i.e., culture knowledge) made a statistically significant contribution to the model. Culture knowledge displayed an estimated coefficient of .40, which indicated self-efficacy increased by a factor of .40 for every one-unit increase in culture knowledge. Personal fear of invalidity displayed an estimated coefficient of -.67, which indicated self-efficacy decreased by a factor of .67 for every one-unit increase of personal fear of invalidity. For the binary logistic model, one demographic factor (i.e., culture knowledge) displayed a probability of .56, as determined using similar calculations discussed in the
introduction of this section and regression analysis details, meaning self-efficacy increased by a factor of .56 for every one-unit increase in culture knowledge. One cognition style factor (i.e., personal fear of invalidity) had a probability of .32 as determined using similar calculations, meaning self-efficacy decreased by a factor of .32 for every one-unit increase of personal fear of invalidity.

Table 17

*Self-Efficacy Model Data*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Linear*</th>
<th>Logistic**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>Coefficient standard error</td>
</tr>
<tr>
<td>Culture knowledge</td>
<td>.40</td>
<td>.09</td>
</tr>
<tr>
<td>PFI</td>
<td>-.67</td>
<td>.25</td>
</tr>
<tr>
<td>Constant</td>
<td>1.15</td>
<td>.81</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$B$</td>
<td>$SE$</td>
</tr>
<tr>
<td>Culture knowledge</td>
<td>2.72</td>
<td>1.07</td>
</tr>
<tr>
<td>PFI</td>
<td>-5.35</td>
<td>2.73</td>
</tr>
<tr>
<td>Constant</td>
<td>6.79</td>
<td>6.27</td>
</tr>
</tbody>
</table>

*Note.* PFI = personal fear of invalidity; $^*R^2 = .47$; Adjusted $R^2 = .42$; $^{**}$Cox & Snell $R^2 = .45$; Nagelkerke $R^2 = .59$.

**Research Question 3**

Data collected to examine the third research question came from four interviews with four indigenous leaders from different regions of the world (i.e., Brazil in South America, Cote d’Ivoire in West Africa, Australia, and India). All four of these indigenous leaders have worked extensively with missionaries from the United States, including some of the research participants from the quantitative study. The leaders were asked, “What personal attributes should a
missionary from the United States have to make them effective at crossing from their culture over to your culture to develop indigenous leaders?” I used coding to categorize certain statements generated during my qualitative interviews with the four indigenous participants to align with the cross-cultural competence or cognition style categories used in the quantitative portion of the study. Many of the attributes that the interviewees described as being important to cross-cultural competence aligned naturally with the factors used in the regression analysis in the quantitative portion of this study. In some cases, though, the interviewees did not directly state one of the eleven cross-cultural competence or four cognition style terms used in the quantitative study; however, what they stated naturally fit into one of these categories. Additionally, a few other categories emerged when I analyzed these qualitative interview data but did not align with the categories found in the quantitative study. Although aligned with one of the factors, some data provided additional information revealing a more nuanced contextual understanding of the attribute in the interviewee’s specific culture. Table 18 summarizes data of the number of interviewees who made comments directly regarding each attribute or who provided a nuanced understanding of that attribute. After summarizing information in Table 18, I discuss each attribute.
Table 18

*Number of Respondents Per Attribute*

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Direct</th>
<th>Nuanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>INQ</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>SJ</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>O</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>SR</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>INC</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>SE</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>PNS</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>NFC</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>R</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>PFI</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>LP</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>CK</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>P</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>I</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>P/P</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>H</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>PI</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>ST</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

*Note.* INQ = inquisitiveness; SJ = suspending judgement; O = optimism; SR = stress resilience; INC = inclusiveness; SE = self-efficacy; PNS = personal need for structure; NFC = need for cognition; R = rigidity; PFI = personal fear of invalidity; LP = language proficiency; CK = culture knowledge; P = paternalistic; I = incarnational; P/P = persistence/patience; H = humility; C = contextualization; PI = power imbalance; ST = spiritual transformation

### Categories Aligning with the Attributes in the Quantitative Study

Many of the attributes that the interviewees described as being important to cross-cultural competence aligned naturally with the factors used in the regression analysis in the quantitative portion of this study. Although many comments aligned with one of the factors, some data
provided additional information revealing a more nuanced contextual understanding of the attribute in the interviewee’s specific culture.

**Inquisitiveness**

Inquisitiveness was an important attribute for all four indigenous interviewees (see Table 19). They indicated missionaries demonstrated inquisitiveness by possessing a genuine desire to learn about the people and the culture, including experiencing it, communicating, and asking questions. All four of the people I interviewed believed it was an important personal quality for a missionary from the United States to possess.

**Table 19**

*Examples of Inquisitiveness Interviewee Quotes*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>Communication is important. . . the person from the United States needs to learn about this culture little by little by communicating and asking questions.</td>
</tr>
<tr>
<td>Younousa</td>
<td>Another aspect that is needed. . . is having a true desire to know people and why there are the way they are. . . Someone who does not come with an attitude of, “I know it all,” . . . who has an attitude of a learner. . . who wants to discover, to find out [about] people.”</td>
</tr>
<tr>
<td>Marshall</td>
<td>An important quality is being a learner. . . the quality of wanting to learn about people and situations.</td>
</tr>
<tr>
<td>George</td>
<td>Asking questions to try to understand is good. . . Another quality is wanting to understand something on a deeper level. . . This whole concept of learning the culture [and] experiencing the culture when you are with the people is highly valuable.</td>
</tr>
</tbody>
</table>

**Inquisitiveness Nuances**

Although participants had said being inquisitive was an important personal attribute for a missionary to possess, two interviewees provided additional insight into this attribute as it relates to their own cultures. One of them said it was important for a U.S. missionary to understand being inquisitive should lead to helping local leaders solve their own challenges, not just to gain
knowledge. The other interviewee stated being inquisitive was an important attribute for the missionary to have, but to keep in mind it can be confusing to local leaders in this interviewee’s particular culture for a missionary, because leaders in the culture seldom ask questions. For example, in this interviewee’s culture, leaders generally only tell followers what to do and followers generally avoid giving input because it may show disrespect to the leader. So, local leaders generally do not ask many questions of their followers and, thus, tend not to have a high level of inquisitiveness. Though interviewees, including those who added nuance to the discussion of inquisitiveness, saw being inquisitive as an important quality to have, the missionary must also know the nuanced cultural implications of inquisitiveness and that appearing to be too inquisitive could lead to confusion and other possible unintended consequences (see Table 20).

Table 20

*Examples of Interviewee Quotes that Added Nuance to the Idea of Inquisitiveness*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>United States’ leaders should engage with the local leaders by asking questions, in a way that can help [them] solve issues on their own. . . . Have a real experience living in that place by yourself for two or three months, trying to have these conversations with the local leaders. . . . just be with the people to learn from them about the culture and what is important to them. We need to have the long view in mind, not thinking that we’re going to do some great historic thing in a two-week period of time.</td>
</tr>
<tr>
<td>George</td>
<td>The whole concept of learning [and] experiencing the culture when you are there with the people is highly valuable [and] you have to really pay attention to their emotions and really understand what they are saying. . . . Because they see you as a leader, they do not want you to ask them what they would like as a leader. They just want to tell them how it is going to be. In my culture, people wonder why you are asking [them questions]. . . just tell me what to do and I will do it. . . If you ask, ‘why do you do this?’ or, ‘why do you think this way?’ . . . those questions would not make sense because the answer would be, ‘what do you mean? That is just the way it’s done.’</td>
</tr>
</tbody>
</table>
**Suspending Judgement**

Two of the four interviewees mentioned that making a judgement too early would not be something helpful for the missionary to do. They both indicated that taking time to learn the people, the culture, and the issues that arise is very important before making a judgement about a person or situation (see Table 21).

**Table 21**

*Examples of Suspending Judgement Interviewee Quotes*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>How a person... judges situations and people is also important... learning from them is very important. So, it’s not like I’m coming with all the solutions. In the learning process the leader needs to get whatever they can from as many possible sources as possible in a hands-off way... [and] keep certain opinions and judgements to themselves [and]... think about them before they speak... And you need time to understand what is happening which is why it is important to not judge right away and hold your opinion sometimes.</td>
</tr>
<tr>
<td>Younousa</td>
<td>Attitudes of not judging [is] much more important than dressing and eating like the locals... someone who would be slow to judge... they observe, wait a season, reflect and hold off judgement.</td>
</tr>
</tbody>
</table>

**Optimism**

Two of the four interviewees mentioned having an optimistic attitude was important for the missionary to have to be competent in crossing cultures (see Table 22).

**Table 22**

*Optimism Interviewee Quotes*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>Another positive quality is having hope and you’re [being] positive.</td>
</tr>
<tr>
<td>Younousa</td>
<td>Another important quality... that would help their effectiveness in crossing cultures is being optimistic.</td>
</tr>
</tbody>
</table>
**Stress Resilience**

Two of the four interviewees mentioned being able to handle stress was an important attribute (see Table 23).

**Table 23**

*Stress Resilience Interviewee Quotes*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>Not every step you take is going to be successful. You will probably fail many times, but you learn from those failures.</td>
</tr>
<tr>
<td>Younousa</td>
<td>Another important quality is someone who can handle change, a new environment, and stress.</td>
</tr>
</tbody>
</table>

**Inclusiveness**

Three of the four interviewees believed inclusiveness was an important personal attribute for a missionary (see Table 24).

**Table 24**

*Inclusiveness Interviewee Quotes*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>Leaders need to be more inclusive in their leadership style. . . . If you have some kind of prejudice to this particular culture or society, maybe it’s not good that you interact with this culture.</td>
</tr>
<tr>
<td>Younousa</td>
<td>Accepting people is important. . . . Attitudes of openness is. . . . important . . . Another quality is to be open to all people no matter where they are from. . . . When a leader asks the locals’ opinions and thoughts are on an issue, the locals expect that the leader will consider everything that was said and make a decision.</td>
</tr>
<tr>
<td>George</td>
<td>Another issue that is important is how a person. . . . deals with inclusiveness and allowing others to have a voice.</td>
</tr>
</tbody>
</table>
**Inclusiveness Nuances**

Of the four interviews, two of them mentioned it was important for the missionary to be inclusive, but also that it was important for them to understand how their own cultural understanding of inclusivity may be different than how the culture they are working in views and applies inclusivity; therefore, these two interviewees cautioned against missionaries not imposing their own cultural understanding of inclusivity onto the culture in which they are working. The other two emphasized being inclusive as a way to love and respect people, which also are important attributes to have for the missionary who wants to be competent at working across cultures (see Table 25).

**Table 25**

*Examples of Interviewee Quotes that Added Nuance to the Idea of Being Inclusive*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>Being inclusive is important, [but] it is important to understand the different situations in other cultures, regarding how they include people. So, trying not to change that situation in these cultures is something important. . . to understand, because he or she will have people working with them [who] are from different backgrounds. So, they really need to understand how to do that in a culturally sensitive way. . . . You want to be inclusive, [but] it might be more complicated and difficult. So, you need to be very culturally intelligent in a way to do that… You [need to] see that inclusiveness is not necessarily because they were black or Indian or whatever, but they were from different levels of society.</td>
</tr>
<tr>
<td>Younousa</td>
<td>So, my inclusiveness will be a way for me to show respect to people, all people, to show them love and create a situation where I can engage with their beliefs and values.</td>
</tr>
<tr>
<td>Marshall</td>
<td>Treating people with love and respect equally. . . . its inclusive.</td>
</tr>
<tr>
<td>George</td>
<td>Inclusiveness is good generally, but in certain areas it creates more misunderstanding and tensions. . . . Inclusivity is a good quality to have, but to take that inclusivity that you believe in your own heart or your culture and impose it in a culture different than yours. . . that’s where it is wrong.</td>
</tr>
</tbody>
</table>
**Self-Efficacy**

Two of the four interviewees expressed the personal attribute of self-efficacy is important for the missionary to have to be competent cross-culturally (see Table 26). They emphasized that the missionary needs to be confident in their own abilities and believe in their capacity to execute behaviors necessary to produce specific outcomes.

**Table 26**

*Self-Efficacy Interviewee Quotes*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>Another quality that is important is being confident, even though you may feel like you could make a mistake. . . [Be] confident in each step that you take, knowing that you’re going to make mistakes, and may cause waves. It’s not that every decision or step that you make is going to be successful. You will probably fail many times, but you learn from these failures.</td>
</tr>
<tr>
<td>Younousa</td>
<td>Another important quality is someone who can handle change, a new environment, and stress.</td>
</tr>
</tbody>
</table>

**Self-Efficacy Nuances**

Two of the four interviews made a point about how it was important for the missionary to be self-efficacious; however, the missionary needs to be confident in their abilities to produce outcomes, but to not try to impose their own view of how to solve a problem onto the local leaders (see Table 27). Though both said that being self-efficacious was an important personal attribute to have, they said that it was also important for the missionary to be culturally aware of what it would do if the missionary solves problems or challenges on their own, and imposes their own will on the local leaders.
Table 27

Examples of Interviewee Quotes that Added Nuance to the Idea of Self Efficacy

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>This idea that the United States [leader] will solve everything around the world is something that needs to also change. To me it’s much better for the them to lead like a coach or somebody that will help others, but not necessarily take their loads on themselves. . . . it’s more like providing direction or giving guidance, but not necessarily being the one who has to do it. . . . So, people from the United States will start doing everything and solving everything and the local leaders will step back without giving much effort. I don’t think that works well once the missionary leaves, because everything falls down again and nothing really happens.</td>
</tr>
<tr>
<td>Marshall</td>
<td>Missionaries from the United States have an urge to use their power to produce something. This need to control the situation and make things happen, rather than [asking], “Okay God, what are you doing here in this place with these local people?” [They] move in with their outfits, [and] sort of render those people vulnerable. . . by the way [they] act. [They] sort of bulldoze them because [they] have money and they need money.</td>
</tr>
</tbody>
</table>

Need for Flexibility

Three of the four interviewees stated it was important for the missionary to be flexible and to not be so structured that structure impinges on one’s ability to work with the people from that culture (see Table 28).
Table 28

Need for Flexibility Interviewee Quotes

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>Flexibility is important to be cross-culturally competent.</td>
</tr>
<tr>
<td>Younousa</td>
<td>Another important quality is someone who can handle change, a new environment, and stress.</td>
</tr>
<tr>
<td>Marshall</td>
<td>Some people need to have everything in order, as opposed to someone who is just going to take life as it comes. . . [but] you need to be able to adapt to take life as it comes. . . Some people are too structured. . . be flexible</td>
</tr>
<tr>
<td>George</td>
<td>Another quality that is important. . . about the United States culture generally is there is an order for things that they do, [but in this culture] there is supposed to be order and on paper there is order, but order practically in this culture is completely out. . . People who come here from the United States and who must have everything in order. . . would have a hard time here.</td>
</tr>
</tbody>
</table>

Introducing Nuances into the Flexibility Point

One interviewee conveyed the missionary needs to understand the possible differences between what being structured means in the United States to being structured in the culture they are working in. So, being structured needs to be contextualized (see Table 29).

Table 29

Quote That Adds Nuance Interviewee Quotes about Flexibility

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younousa</td>
<td>In some ways order and structure are good, but you need to contextualize that and apply that way of thinking in a way that would translate to the culture you are working in. . . [You] need to understand how to be structured in this context or what structure looks like in this culture.</td>
</tr>
</tbody>
</table>
Need for Cognition

Two of the four interviewees made comments related to how it is important for the missionary to gain knowledge about and understand the people and culture they are working with and in (see Table 30).

Table 30

Need for Cognition Interviewee Quotes

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>I know that some of the U.S. leaders try to understand what is happening in a Latin American culture and they kind of stumble with it because it’s complicated and difficult to understand complex situations.</td>
</tr>
<tr>
<td>Younousa</td>
<td>People need to understand the rationale behind a decision.</td>
</tr>
</tbody>
</table>

Rigidity

All interviewees believed being rigid would hinder the missionary from being cross-culturally competent (see Table 31).
Table 31

Rigidity Interviewee Quotes

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>Some leaders from the United States when they see a local leader wanting to go in a certain direction which may not be in the same direction the missionary thinks is the best direction, being flexible is important to have for a missionary.</td>
</tr>
<tr>
<td>Younousa</td>
<td>The first personal quality that would help someone in their cross-cultural competence is someone who doesn’t come with an attitude of, “I know it all.” [This] attitude can put up a fence or a barrier to real connection with people and when there is not that real connection, it makes helping people very difficult. . . . Make sure [you] are not imposing your culture onto the local culture.</td>
</tr>
<tr>
<td>Marshall</td>
<td>Being rigid is death.</td>
</tr>
<tr>
<td>George</td>
<td>One of the biggest qualities that is needed for cross-cultural competence is just an openness, for different ideas and different ways of thinking… For a person from the U.S., who has a totally different frame of reference, it’s important to understand that you’re not going to get it completely, or you’re never going to understand that frame of reference, without really growing up in that [culture]… Another quality that is important is to not… try to control things… . . .You need to have an attitude of flexibility for just about everything… so people from the U.S. who come here must be able to handle that level of being disorderly and lack of rigidness.</td>
</tr>
</tbody>
</table>

Personal Fear of Invalidity

None of the interviewees made any comments regarding any personal attributes related directly to this attribute.

Personal Fear of Invalidity Nuances

None of the interviewees made any comments about personal fear of invalidity as an attribute directly; however, three made comments related to the attribute as shown in Table 32. Whether a missionary is a decisive or indecisive leader, and whether it is because they possess an attribute of personal fear of invalidity or not, the missionary needs to understand how that local culture views decisiveness or indecisiveness.
Table 32

*Personal Fear of Invalidity Nuance Interviewee Quotes*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younousa</td>
<td>People here make decisions slowly, because each individual is controlled by their family and the family is controlled by the community. So, there are some situations when a person wants to make a decision, but needs to take time to think about how their family and community will accept that decision. [So] there are some situations where a decision needs to be made quickly, but many times if the decision affects others then it’s important to follow the process that includes the family and the community.</td>
</tr>
<tr>
<td>Marshall</td>
<td>Another quality that’s important is how a person makes a decision. You need a balance between being quick to make a decision and at other times it’s important to wait and gather more information before making a decision.</td>
</tr>
<tr>
<td>George</td>
<td>Another issue that is worth mentioning is being decisive or indecisive. . . . Sometimes in certain meetings, [a missionary] could just step in and just say, oh let’s do this and that. . . . Then about halfway through the meeting, [the missionary] could catch [themselves] and [think that it is not good]. . . . I’m taking over here. [The missionary may ask the local leaders], if [they are] being too pushy or imposing? [The local leaders] don’t see it that way. They want to know what [the missionary] thinks. Like I said before, they want you to tell them what to do. They want to defer to [the missionary] and they want [them] to just tell them how it should be done.</td>
</tr>
</tbody>
</table>

*Language Proficiency*

Two of the four interviewees mentioned being able to speak and understand the language is an important personal attribute to be cross-culturally competent (see Table 33).

Table 33

*Language Proficiency Interviewee Quotes*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>[Speaking] the language would be for me one of the main things.</td>
</tr>
<tr>
<td>Marshall</td>
<td>Something happens once I start speaking their language. . . . I start thinking like the people there.</td>
</tr>
</tbody>
</table>
**Cultural Knowledge**

One of the four interviewees volunteered, without prompting, that it is an important personal attribute to possess an understanding the culture (see Table 34).

**Table 34**

*Cultural Knowledge Interviewee Quote*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>“I think the one thing that creates a majority of issues and difficulties is to assume that Latin America cultures are all the same.”</td>
</tr>
</tbody>
</table>

**Categories Not Aligning with the Quantitative Study Attributes**

**Paternalism**

One interviewee believed paternalism was a personal attribute needing assessment when measuring cross-cultural competence (see Table 35). He mentioned being too paternalistic would have a detrimental effect on the cross-cultural competency of a missionary.

**Table 35**

*Paternalism Interviewee Quote*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>Being too directional or telling the local leaders what to do all the time are not things that are good for my culture. I can tell you examples that I have experienced with some U.S. leaders spoiling the local leaders too much. . . . I believe the local leaders need to learn to find solutions themselves and is something they need to learn. So, it’s like being too paternalistic, or going too far in what the U.S. leader thinks is needed to solve local problems.</td>
</tr>
</tbody>
</table>
**Incarnational**

One of the four interviewees used the term *incarnational* when describing the personal attributes missionaries need to work successfully in a different culture. When asked to define the term, this individual indicated that being incarnational meant being with the people of the culture in which a missionary worked for an extended period of time, during which the missionary got to know the local people and their culture. This individual argued that incarnational was an important personal quality for missionaries to have.

**Table 36**

*Incarnational Interviewee Quote*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>The way [some missionaries] did their mission work was incarnational. They move into a poor neighborhood and they live there for many years. . . . [they] learn through very simple conversations with people in the streets and getting to know their neighbors. If you are incarnational like that then you will understand the culture and be able to apply any leadership model that you have in mind.</td>
</tr>
</tbody>
</table>

**Perseverance and Patience**

One interviewee stated perseverance and patience were two related important personal attributes for a missionary to be competent cross-culturally (see Table 37). Though the interviewee used both perseverance and patience, my understanding was the interviewee viewed the terms as synonyms, and, consequently, used these two words interchangeably.
Table 37

Perseverance and Patience Interviewee Quote

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>A leader from the United States needs to have perseverance and patience.</td>
</tr>
</tbody>
</table>

Humility

One interviewee believed humility was an important personal attribute to have for the missionary (see Table 38). He stated the local people would not be as responsive to someone who exhibited hubris. He commented that when someone has a personal attribute of humility, the local people feel like they are respected and, because of this respect, would allow the missionary to have greater access to the people and culture.

Table 38

Humility Interviewee Quote

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younousa</td>
<td>The first quality is someone who does not come with an attitude of, ‘I know it all,’ but when someone has an attitude of a learner. . . people here are more open to engage with. . . to reach out to people you have to have access to them. . . . An attitude that I am better than you does not give access to people. . . . If there is no respect and the person from the United States is judging the local people and looking down on them, the local people will not allow the [missionary] to have access to them. . . . Attitudes of love, openness, willing to learn, not judging are much more important than dressing and eating like the locals.</td>
</tr>
</tbody>
</table>

Contextualization

Three of the four interviewees mentioned the missionary needs to contextualize everything they know and do to the local context (see Table 39). In fact, many of the comments
made by the interviewees about each of the variables were about the need for the missionaries to know the culture enough to be able to contextualize these attributes to that particular culture.

**Table 39**

*Contextualization Interviewee Quotes*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mora</td>
<td>You [need to] contextualize that leadership model and use it according to what your understanding of that particular culture.</td>
</tr>
<tr>
<td>Younousa</td>
<td>“[The United States missionary’s] role will be to expose [the culture] to the biblical values, and then let them struggle to implement that into their culture. [The missionary] will be with them as a facilitator to ask questions, to help them in that process, because they know better than [you]. So when the Bible states to love one another, it is important to know how that will be implemented in that context. The local people are the best to know how to do that. [The missionary] is not the right person to do the contextualization for them. They are.”</td>
</tr>
<tr>
<td>George</td>
<td>[Need] to have the realization that they are working from a totally different frame of reference.</td>
</tr>
</tbody>
</table>

**Power Imbalance**

One interviewee believed the missionary needs to be aware and understand the possible power imbalance between the local people and themselves and to have that in mind when engaging with them (see Table 40).

**Table 40**

*Power Imbalance Interviewee Quotes*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marshall</td>
<td>Missionaries from the United States [have] this urge to use their power to produce something. . . this need to control the situation and make it happen. . . [they] can sort of render those people vulnerable persons by the way they act. [They] sort of bulldoze them because they have money and they need money. . . . There is this inequality, an imbalance of power. That’s one of the central issues. . . how can we maintain a level playing field in terms of power?</td>
</tr>
</tbody>
</table>
**Spiritual Transformation**

One of the interviewees believed that the missionary needs to be personally working on their spiritual transformation, which would help them to be self-aware of the power imbalance that may exist between themselves and the local people (see Table 41). This spiritual transformation would also enable the missionary to engage with the local people in a way that helps them gain access to them more readily.

**Table 41**

*Spiritual Transformation Interviewee Quote*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marshall</td>
<td>Transforming spirituality is very weak [in the United States missionary]. So, you translate that into missions and you have a whole bunch of people who are doing missions who have not been transformed themselves or are not working on their own spiritual transformation. So how does that impact of not working on your own spiritual transformation mean? That means I go as a missionary with very poor self-awareness. . . these missionaries go to other cultures with an ungodly or uninformed sense of power and then we have vulnerable persons both doing missions and on the receiving end of missions work. . . I think it’s devasting in a missions context. . . For me it’s about spiritual awareness. . . is there a [spiritual] journey that forms me to where I have a calling to people who are different than me, because that then connects into other things like humility and developing Christian virtues.</td>
</tr>
</tbody>
</table>

These qualitative data from interviews provided valuable data about attributes a missionary from the United States should possess to help them be effective at crossing cultures to develop indigenous leaders from other cultures, and, as such, can be used to triangulate the quantitative findings. As Mathison noted long ago, however, triangulation can reveal not only similarities across two different ways of collecting data (and, in this case, also two different providers of data, i.e., the missionaries and those from the cultures they serve), but also quite
different perspectives of the same phenomena, in this case, the personal characteristics needed to work cross-culturally as a missionary.

As it turned out, inferences across these two data sets generated from two different type of participants were more similar than different. Many of the attributes that the interviewees described as being important to cross-cultural competence aligned naturally with the factors used in the regression analysis in the quantitative portion of this study. Respondents found six of the 11 cross-cultural competence factors (i.e., inquisitiveness, optimism, stress resilience, inclusiveness, and self-efficacy) and all four cognition style factors (i.e., personal need for structure, need for cognition, rigidity, and personal fear of invalidity) important. Regarding the greatest number of direct comments, all four respondents made direct comments for only three attributes: one cross-cultural competence attribute (i.e., inquisitiveness), and two cognition style attributes (i.e., personal need for structure and rigidity). Only two demographic factors (i.e., language proficiency and culture knowledge) were found in these data. Additionally, other attributes not found in the quantitative models emerged, such as paternalism, incarnational, perseverance/patience, humility, contextualization, power imbalance, and spiritual transformation. Three respondents made direct comments about the cross-cultural competence attribute of inclusiveness and an attribute not found in the quantitative study contextualization. Some attributes were mentioned by only one respondent, including a demographic attribute (i.e., culture knowledge) and attributes not included in the quantitative study (i.e., paternalism, incarnational, patience/persistence, humility, power imbalance, and spiritual transformation).

These qualitative data did not simply duplicate findings produced in the quantitative part of the study. At times, these qualitative data generated from Indigenous leaders revealed more nuanced perceptions of attributes measured in the survey part of the study. (see Table 18).
Respondents mentioned only five attributes in their nuanced responses: three cross-cultural competence attributes (i.e., inquisitiveness, inclusiveness, self-efficacy) and two cognition style factors (i.e., personal need for structure and personal fear of invalidity). All four respondents mentioned the cross-cultural competence attribute of inclusiveness. Three respondents gave nuanced responses for the cognition style attribute of personal fear of invalidity but there were no direct comments made for this attribute. Two respondents made nuanced comments for two cross-cultural competence attributes (i.e., inquisitiveness and self-efficacy). One respondent made a nuanced comment about the cognition style attribute of personal need for structure.

There were a couple other observations to be addressed concerning attributes emerging in these qualitative data. First, the cross-cultural competence attribute of inclusiveness was the most mentioned attribute in both direct and nuanced comments with seven mentions, followed by inquisitiveness (six) and the cognition style attribute of personal need for structure (five). Another interesting observation showed although the cross-cultural competence attribute of optimism was mentioned by only one respondent, it was not a significant factor in the quantitative study.

**Summary**

The following is a brief summary that highlights the key findings of this chapter. I first discuss the key demographic findings and then the salient takeaways from these data gathered for the three research questions.

**Demographics**

A few of the demographic findings are worth highlighting. The average age of participants was 58.03 years, 91% of the participants were white, 81% participants had a bachelor’s degree or higher, and the average number of years of cross-cultural experience was
22.61 years. The participants spent on average a little less than two weeks a year on missions trips. Most participants (70%) had at least an elementary language proficiency, and for cultural knowledge, 99% of participants indicated they had a moderate amount or greater. Most participants (88%) indicated they were currently prepared cross-culturally moderately or greater.

**Research Question 1**

The first research question examined the differences between participants scoring in the top 20% and participants scoring in the bottom 20% of the cross-cultural competence assessment for both the cross-cultural competence assessment and cognition style factors. Cross-cultural competence factors with the largest difference between the top and bottom mean scores were cultural interest, suspending judgement, and self-efficacy, and the factors with the smallest difference between the top and bottom mean scores were optimism, stress resilience, and inclusiveness. The difference between the top and bottom 20% in mean scores for the four cognition style factors (i.e., need for structure, need for cognition, rigidity, and personal fear of invalidity) were close to the same for all four factors.

**Research Question 2**

Using linear and binary logistic regression analysis to examine the differences between participants scoring in the top 20% and participants scoring in the bottom 20% further, the second research question explored whether there were any possible correlations between demographic or cognition style factors as independent variables and the cross-cultural competence factors as dependent variables. Positive correlations were found between cross-cultural training and both culture interest and inclusiveness, and between personal fear of invalidity and both self-efficacy and suspending judgement. Other positive correlations were found between relationship orientation and currently cross-cultural prepared, and between rigidity and
Finally, culture knowledge was correlated to culture acuity and self-efficacy, negatively and positively respectively.

**Research Question 3**

These qualitative data from interviews provided valuable data about attributes a missionary from the United States should possess to help them be effective at crossing cultures to develop indigenous leaders from other cultures, and, as such, can be used to triangulate the quantitative findings. Many of the attributes that the interviewees described as being important to cross-cultural competence aligned naturally with the factors used in the regression analysis in the quantitative portion of this study. Respondents found six of the 11 cross-cultural competence factors (i.e., inquisitiveness, suspending judgement, optimism, stress resilience, inclusiveness, and self-efficacy) and all four cognition style factors (i.e., personal need for structure, need for cognition, rigidity, and personal fear of invalidity) important. All four respondents made direct comments for only three attributes: one cross-cultural competence attribute (i.e., inquisitiveness), and two cognition style attributes (i.e., personal need for structure and rigidity). Three respondents made direct comments about the cross-cultural competence attribute of inclusiveness and an attribute not found in the quantitative study contextualization. These qualitative data also generated more nuanced perceptions of attributes measured in the survey part of the study. Respondents mentioned only five attributes in their nuanced responses: three cross-cultural competence attributes (i.e., inquisitiveness, inclusiveness, self-efficacy) and two cognition style factors (i.e., personal need for structure and personal fear of invalidity). All four respondents mentioned nuanced responses for the cross-cultural competence attribute of inclusiveness.
CHAPTER FIVE: DISCUSSION OF FINDINGS AND CONCLUSION

For most of my adult life, I have crossed cultures personally and professionally as a missionary and a member of the U.S. Armed Forces. My first trip overseas was to Asia in 1984, and I have spent both short and extended periods of time in many different cultures since then. In addition to my own personal experiences, I have observed many people from my culture and other cultures interacting with people from different cultures. Over these years, I have come to understand some people seem to be more effective than others in building positive and mutually beneficial relationships with people from cultures different than their own. My desire in this research was to examine if certain attributes in a person would make them more effective at crossing cultures and interacting with people from these cultures.

In my review of the pertinent literature, I found research about examining cross-cultural competence of the military community, but I did not find research examining Christian missionaries’ cross-cultural effectiveness or competence. As such, this research examined the cross-cultural competence of missionaries working for the U.S. Association of Vineyard Churches (USAVC) missions organization.

In this section, I provide what I believe is the story in these data. First, I discuss the story in these demographic data. Then, I discuss what the cross-cultural competence and cognition style assessments revealed, the story underlying the results from my first research question. Next, I review the story from these data about my second research question, discussing the regression models results from comparison of the top and bottom 20% of the performers of the cross-cultural competence assessment, and whether any of the demographic or cognition style factors were significantly correlated to predict cross-cultural competence. Then, I compare my results with the results from previous military related cross-cultural competence studies. Next, I
compare the story of the qualitative results to the quantitative results and discuss the corresponding consistencies and inconsistencies. Finally, I end the chapter with a discussion about future research.

**Demographics**

For readability, I have provided a summary of these demographic data grouped together into the following logical groupings: (a) age, gender, ethnicity, ordained/licensed, and position; (b) years of ministry and cross-cultural experience; (c) continent worked, number of and weeks on missions trips in last 5 years; (d) language proficiency, time spent with indigenous leaders, knowledge of culture; and (e) cross-cultural training and how cross-culturally prepared initially and currently. The grouping order flows with the order of each demographic attribute discussed in this study.

**Age, Gender, Ethnicity, Education, Ordained/Licensed, and Position**

The average age of the participants was 58.03 years old, with a minimum of 33, a maximum of 73, and a standard deviation of 10.07; 79% were 50 years of age or older. This could reveal the need to bring younger missionaries into the organization because many of the current workers will retire as time goes by, potentially reducing the number of missionaries in the organization. However, most nonwestern countries value older people and their contribution to society more than western countries. Participants’ genders were 71% male and 29% female, possibly indicating the need to bring in more female workers to work particularly with females who are spouses of leaders or leaders themselves in other countries. However, Christian leaders in many nonwestern countries tend to be male, so having a larger number of male missionaries could be more advantageous. Participant ethnicities were 91% White and 9% people of color. This
statistic could indicate the demographic of the USAVC. Perhaps the organization should work to be more diverse regarding ethnicity. However, most nonwestern cultures value White or Caucasian ethnicities due to the perceived value of people from these cultures. Participants had an education level of a bachelor’s degree or higher, a greater education level than many of the indigenous leaders they have developed. However, most cultures value education and would view this as positive. Most participants (81%) were either ordained or licensed and most Christian indigenous leaders would see view this positively. Finally, 85% of participants were either in a paid or volunteer leadership position in a church or in a parachurch organization. This fact would also be viewed positively by indigenous leaders.

**Years of Ministry and Cross-Cultural Experience**

The participants’ average number of years of ministry experience was 33.16 years, with a minimum of 7, a maximum of 51, and a standard deviation of 10.60. This distribution was similar and aligned with participant age, including data skewed to the right. Ministry experience would be viewed positively by indigenous leaders, but it also reveals the lack of younger missionaries with less years of ministry experience. Next, participant’s years of cross-cultural experience averaged 22.61 years, with a low of 1, a maximum of 55, and a standard deviation of 13.04. This statistic may tell a similar story as age and years of ministry experience, revealing an older and more experienced group of participants.

**Continent Worked, Number of and Weeks on Missions’ Trips in Last Five Years**

Most participants worked in Asia (37%), followed by North America (30%), then Africa (19%), and finally Europe (9%) and South America (5%). All participants working in North America were working in Central America or the Caribbean, meaning none of the participants worked in the United States. This makes sense. Most groups not reached by Christian missions
are not located in Europe or South America, so the statistics also makes sense because most missions efforts target regions where the percentage of Christians is low. Participants’ average number of missions trips in last 5 years was 7.63, and most participants (73%) took nine or less missions trips, on average a little less than two trips per year. Participants’ average number of weeks on missions trips in last 5 years was 15.91, and almost half (47%) spent nine or less weeks on missions trips, a little less than 2 weeks per year. These two statistics make sense because most participants worked primarily in the United States and spent only some amount of time away from their primary jobs in countries where they were developing indigenous leaders. It is important to note it was highly likely the COVID-19 global pandemic, which began in March 2020, impacted these last two statistics because of reduced international travel during that time (COVID-19 Pandemic, n.d.).

Language Proficiency, Time Spent With Indigenous Leaders, Knowledge of Culture

Most participants (70%) had at least an elementary language proficiency, with 27% having at least a limited proficiency. About 75% of participants indicated they had spent a moderate or more amount of time with the indigenous leaders they were developing. For cultural knowledge, 99% of participants indicated they had a moderate amount or greater cultural knowledge, and just over the majority (53%) indicated they had a lot or greater amount of cultural knowledge. Given the demographic attributes discussed in the prior sections, the values of these three attributes make sense, for example, with an average of 23 years of cross-cultural experience, knowledge of culture would be correspondingly high.

Cross-Cultural Training, How Cross-Culturally Prepared Initially and Currently

Most participants (75%) indicated they were cross-culturally trained moderately or greater, either formally or informally. Most participants (56%) indicated they were cross-
culturally prepared moderately or greater when they began as missionaries, and 88% indicated they were currently prepared cross-culturally moderately or greater. Given the participants’ ages, years of ministry, and cross-cultural experience, it seems these numbers should be higher than participants indicated.

**Research Question 1**

In this section, I discuss the story in these data I discovered when I compared means of the top and bottom 20% of scorers to each other for both cross-cultural competence and cognition style factors. First, I discuss the cross-cultural competence factors and then the cognition style factors.

**Cross-Cultural Competence and Cognition Style Factors**

The first question I wanted to explore in this research examined the differences between two groups of respondents, those who scored in the top 20% of the assessment and those who scored in the bottom 20%. My first research question was:

For USAVC missionaries, what are the attribute profiles from the cross-cultural competency assessment, defined by sample mean scores, of these leaders who are superior and substandard performers?

**Cross-Cultural Competence Factors**

When I compared the mean scores between the top and bottom 20% scorers for the 11 cross-cultural competence factors, the range between the groups and the highest scores were worth noting (see Table 42 and Figure 21). The factors with the largest difference were cultural interest, suspending judgement, and self-efficacy. The reasons for the differences in the three cross-cultural competence factors between the top and bottom 20% scorers were not clearly apparent. However, people scoring higher in these three factors would usually be more
competent cross-culturally. Therefore, training efforts to improve these factors should improve overall cross-cultural competence. The three factors demonstrating the smallest mean score differences between the top and bottom 20% scorers were optimism, stress resilience, and inclusiveness. Again, the reason why these differences were the smallest are not clearly apparent. However, training efforts focused on these areas should improve overall cross-cultural competence.

Table 42

Mean Scores of Top and Bottom 20% for Cross-Cultural Competence Factors

<table>
<thead>
<tr>
<th></th>
<th>RO</th>
<th>CA</th>
<th>CR</th>
<th>IS</th>
<th>CI</th>
<th>INQ</th>
<th>SJ</th>
<th>O</th>
<th>SR</th>
<th>INC</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 20%</td>
<td>5.85</td>
<td>3.79</td>
<td>2.87</td>
<td>5.04</td>
<td>5.32</td>
<td>5.00</td>
<td>4.54</td>
<td>3.19</td>
<td>3.09</td>
<td>4.99</td>
<td>5.58</td>
</tr>
<tr>
<td>Bottom 20%</td>
<td>4.46</td>
<td>2.21</td>
<td>1.57</td>
<td>3.51</td>
<td>3.17</td>
<td>3.90</td>
<td>2.83</td>
<td>2.42</td>
<td>2.49</td>
<td>3.93</td>
<td>3.66</td>
</tr>
</tbody>
</table>

Note. RO = relationship orientation; CA = cultural acuity; CR = cultural relativism; IS = interpersonal skills; CI = cultural interest; INQ = inquisitiveness; SJ = suspending judgement; O = optimism; SR = stress resilience; INC = inclusiveness; SE = self-efficacy.
The six highest scoring factors were relationship orientation, interpersonal skills, cultural interest, inquisitiveness inclusiveness, and self-efficacy. Without further investigation, it was not apparent why these factors produced the highest scores. The factors with the lowest scores were cultural acuity, cultural relativism, optimism, and stress resilience. Again, it was not apparent why these factors scored the lowest.

Considering the range difference and the highest and lowest scores, training efforts could be focused on reducing the range differences and raising the participants’ scores of participants scoring the lowest to improve missionaries’ cross-cultural competence overall. The goal would be to raise the scores of all 11 factors and reduce the range between the top and bottom 20% scorers at the same time.
**Cognition Style Factors**

Unlike the 11 cross-cultural competence factors, higher scores for the four cognition style factors are not better for the unfamiliar or unclear situations or contexts in which missionaries generally work. A higher score is better for only one of the four factors, need for cognition. For the other three factors (i.e., need for structure, rigidity, and personal fear of invalidity) lower scores are more desirable.

For the cognition style factors, differences between the mean scores of the four factors (i.e., need for structure, need for cognition, rigidity, and personal fear of invalidity) for the top and bottom 20% were close to the same for all four factors, as shown in Table 43 and Figure 22. It makes sense the mean scores were lower for the top 20% scorers compared to the mean scores of the bottom 20% for the three cognition style factors (i.e., need for structure, rigidity, and personal fear of invalidity). Similarly, the mean cognition style factor (i.e., need for cognition) was higher for the top 20% scorers than the mean for the bottom 20% scorers. However, the scores are the more important aspect to note. The mean scores for three factors (i.e., need for structure, rigidity, and personal fear of invalidity) should be as low as possible, and the mean score should be as high as possible for the factor need for cognition. Training efforts could focus on improving these scores to increase cross-cultural competence.

**Table 43**

<table>
<thead>
<tr>
<th>Quintile</th>
<th>PNS</th>
<th>NFC</th>
<th>R</th>
<th>PFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 20%</td>
<td>3.17</td>
<td>4.69</td>
<td>3.23</td>
<td>2.79</td>
</tr>
<tr>
<td>Bottom 20%</td>
<td>4.11</td>
<td>3.77</td>
<td>4.16</td>
<td>3.79</td>
</tr>
</tbody>
</table>

*Note. PNS = personal need for structure; MFC = need for cognition; R = rigidity; PFI = personal fear of invalidity*
Research Question 2

To examine the differences further between the two groups of respondents, the top and bottom 20% scorers, the second question I explored asked if the respondents’ demographic factors or their cognition style factors were correlated to their performance in their cross-cultural competence assessment scores. My second research question was:

What is the relationship, if any, between USAVC missionaries’ demographic features, cognition style factors and individual scores in cross-cultural competence?

I used linear and binary logistic regression models for each of the 11 cross-cultural competence factors. Based on the significance level of the model results, linear and binary logistic regression results were significant for some of the 11 factors and the linear regression models were only significant for others. Regression models for two of the 11 cross-cultural factors (i.e., cultural relativism and optimism) did not show that any of the demographic or cognition style independent variables were statistically significant. As such, there were no
statistically significant correlations between two of the 11 cross-cultural competence factors (i.e., cultural relativism and optimism), and the independent variables of demographic and cognition style factors. The following nine factors had significant correlations to demographic or cognition style factors, or both.

**Relationship Orientation**

The linear regression model containing all predictors for relationship orientation was statistically significant, indicating the model distinguished between the top 20% and bottom 20% performers of relationship orientation. This model explained 13.7% and 17.6% of the variance and variation, respectively between these two groups of respondents in the relationship orientation factor of cross-cultural competence. Only one demographic factor (i.e., how currently cross-culturally prepared) made a statistically significant contribution to the model. The estimated coefficient was .24, which indicated relationship orientation increased by a factor of .24 for every one-unit increase of the factor how currently cross-culturally prepared.

Of the 11 cross-cultural competence factors, relationship orientation had the highest mean score (5.85) revealing respondents valued personal relationships at a very high level. The significant positive correlation between relationship orientation and the demographic factor of how currently cross-culturally prepared revealed respondents who felt more prepared currently to work in cross-cultural settings valued personal relationships higher. For western missionaries developing indigenous leaders cross-culturally, having high values of personal relationships makes sense because mentoring people in leadership development is a highly relational endeavor.
Cultural Acuity

Both linear and binary logistic regression models containing all predictors for cultural acuity were statistically significant, which indicated the models distinguished between the top 20% and bottom 20% performers of cultural acuity. The linear regression model explained between 58.4% and 60.1%, of the variance and variation, respectively between these two groups of people in the cultural acuity factor of cross-cultural competence. For the binary logistic model, Cox & Snell $R^2$ and Nagelkerke $R^2$ was .54 and .72, respectively. Culture knowledge displayed an estimated coefficient of -.48 in the linear regression model, and culture knowledge displayed a probability of -.48 in the binary logistic model, meaning both models predicted cultural acuity decreased by a factor of .48 with a one-unit increase in culture knowledge.

This negative correlation does not make sense intuitively. One would expect as a missionary’s knowledge about the culture in which they are working increases, their ability to accurately assess the views and actions of people from that culture and their situations would increase not decrease. It was also interesting to see the respondents’ mean for cultural acuity was 3.75, with the top performers mean at 3.79 and the bottom performers at 2.21. One would expect missionaries who cross cultures regularly would have a higher score in cultural acuity. However, having low mean scores and a negative correlation between cultural acuity and culture knowledge could reveal a deficiency in skills for this group of missionaries. It would be worth further exploration to examine if specific culture training could be focused on increasing cultural acuity.

Interpersonal Skills

The linear regression model containing all predictors for interpersonal skills was statistically significant, indicating the model distinguished between the top 20% and bottom 20%
performers of interpersonal skills. This model explained 17.9% and 21.2% of the variance and variation, respectively between the top and bottom 20% performers in the interpersonal skills factor of cross-cultural competence. Only one independent demographic variable (i.e., Europe) made a statistically significant contribution to the model. Europe displayed an estimated coefficient of .64, indicating interpersonal skills increased by a factor of .64 for respondents who worked in Europe compared to those that did not. It was not clear why missionaries working in Europe would be significantly correlated to this factor. This could certainly be a Type 1 error.

For missionaries cross-culturally developing indigenous leaders, scoring high on interpersonal skills would be expected as they are skills built interacting consistently with people in a positive way. These data showed the top performers’ mean score was 5.04 and the bottom performers’ mean score was 3.51. Training efforts could be focused on raising the overall score which would correspond with an increase in their scores in the overall cross-cultural competence assessment.

Cultural Interest

The linear regression model containing all predictors for cultural interest was statistically significant, which indicated the model distinguished between the top 20% and bottom 20% performers of cultural interest. This model explained 77.9% and 71.7% of the variance and variation, respectively between these two groups of people, for the cultural interest factor of cross-cultural competence. Four demographic factors (i.e., cross-cultural training, number of missions trips, South America, and bachelor’s degree) and one cognition style factor (i.e., rigidity) made a statistically significant contribution to the model. Cross-cultural training displayed an estimated coefficient of .17, which indicated cultural interest increased by a factor of .17 for every one-unit increase of cross-cultural training. Number of missions trips displayed
an estimated coefficient of -.30, indicating cultural interest decreased by a factor of .30 for every one-unit increase of number of missions trips. South America displayed an estimated coefficient of -.76, which indicated cultural interest decreased by a factor of .76 for South America. Bachelor’s degree displayed an estimated coefficient of -.32, which indicated cultural interest decreased by a factor of .32 for bachelor’s degree. Rigidity displayed an estimated coefficient of .75, which indicated cultural interest increased by a factor of .75 for every one-unit increase of rigidity.

The means for cultural interest were 5.32 and 3.17 for the top and bottom 20% scorers, respectively. Higher scores are better for this factor, and the top 20% scorers’ mean was very high, leading to a corresponding high score for cross-cultural competence. This factor had a large difference between the top and bottom 20% scorers. Training efforts targeting lower scorers would improve overall cross-cultural competence. The regression model results revealed cross-culture training and South America had a positive correlation to cultural interest and number of missions trips and bachelor’s degree had a negative correlation. The positive correlation with cross-culture training was the only correlation that seemed to make sense. The correlations of the other three factors did not and it was not apparent why; perhaps future research may shed some light on these findings.

**Inquisitiveness**

The linear regression model containing all predictors for inquisitiveness was statistically significant, indicating the model distinguished between the top 20% and bottom 20% performers of inquisitiveness. This model explained 32.7% and 38.1% of the variance and variation, respectively between these two groups of respondents in the inquisitiveness factor of cross-cultural competence. Two demographic factors (i.e., Africa and South America) made a
statistically significant contribution to the model. Africa displayed an estimated coefficient of -.67, which indicated inquisitiveness decreased by a factor of .67 for Africa. South America also displayed an estimated coefficient of -.67, which indicated inquisitiveness decreased by a factor of .67 for South America.

The means for this factor were 5.0 and 3.9 for the top and bottom 20% scorers, respectively. The top 20% scorers’ mean was very high, leading to a corresponding high score for cross-cultural competence. Training efforts targeting lower scorers would improve the overall cross-cultural competence. The regression model results revealed Africa and South America had a negative correlation to this factor. It is not clear why these correlations exist.

**Suspending Judgement**

Both linear and binary logistic regression models containing all predictors for suspending judgement were statistically significant, indicating the models distinguished between the top 20% and bottom 20% performers of suspending judgement. The linear regression model explained between 41.3% and 46.4%, of the variance and variation, respectively between these two groups of people in the suspending judgement factor of cross-cultural competence. For the binary logistic model, Cox & Snell $R^2$ and Nagelkerke $R^2$ was .27 and .35, respectively. Two demographic independent variables (i.e., Asia and North America) made a statistically significant contribution to the model, and displayed estimated coefficients of .76 and .60, respectively, showing a one-unit increase in these variables increased suspending judgment by .76 and .60, respectively. For the binary logistic model, one cognition style factor (i.e., personal fear of invalidity) displayed a probability of .10, meaning suspending judgement increased by a factor of .10 for every one-unit increase of personal fear of invalidity.
Unfortunately, the significant correlations for Asia and North America did not make sense intuitively. However, the positive correlation with personal fear of invalidity did. Suspending judgement, the ability to withhold judgement until enough information becomes available and to perceive information unbiasedly, would be expected for someone scoring higher in personal fear of invalidity, a greater sense of fear or apprehension about making a decision or the chance of making an incorrect judgment or decision. So, it makes sense an increase in this cognition style factor would correspond with an increase in time it would take to make up their mind. However, one would expect that a missionary would have a high score in suspending judgement; as such, the mean for the top 20% scorers was high at 4.54. Also, the overall mean and the mean for the bottom 20% scorers were 3.70 and 2.83, both higher than expected.

The mean, top 20%, and bottom 20% for personal fear of invalidity were 3.29, 2.79, and 3.79, respectively. I expected personal fear of invalidity scores would be very low, as lower scores are better, which would indicate missionaries were more confident in making judgements. Training efforts focused on improving these scores would raise overall cross-cultural competence scores.

**Stress Resilience**

The linear regression model containing all predictors for stress resilience was statistically significant, which indicated the model distinguished between the top 20% and bottom 20% performers of stress resilience. This model explained 15.9% and 19.6% of the variance and variation, respectively between these two groups of people. The only correlated independent variable was the demographic factor of years of cross-cultural experience, which displayed an estimated coefficient of .02 to indicate stress resilience increased by a factor of .02 for every one-unit increase in years of cross-cultural experience.
Missionaries developing indigenous leaders cross-culturally would be expected to score high on stress resilience, indicating their ability to tolerate emotionally exhausting, frustrating, or shocking situations. These data showed the top performers’ mean score was 3.09 and the bottom performers’ mean score was 2.49. Higher scores would have been expected and it was unclear why they were low. However, the positive correlation with the demographic factor, years of cross-cultural experience, was expected and makes sense. More years of experience working in cross-cultural situations should help a missionary to become more stress resilient. Training efforts could be focused on raising the overall score to correspond with an increase in their scores for the overall cross-cultural competence assessment.

**Inclusiveness**

Both linear and binary logistic regression models containing all predictors for inclusiveness were statistically significant, indicating the models distinguished between the top 20% and bottom 20% performers. The linear regression model explained between 35% and 37.7%, of the variance and variation, respectively between these two groups of people in the cultural acuity factor of inclusiveness. For the binary logistic model, Cox & Snell $R^2$ and Nagelkerke $R^2$ was .36 and .48, respectively. Only one demographic factor (i.e., cross-cultural training) made a statistically significant contribution to the model, displaying an estimated coefficient of .32 and a probability of .36. According to the linear and binary logistic models, inclusiveness increased by a factor of .32 and .36, respectively, for every one-unit increase of cross-cultural training.

These results make sense and would be expected. One would expect a missionary’s ability to be inclusive (i.e., have the tendency to accept and include people and things based on commonalities and an appreciation of differences) would increase as their knowledge of the
culture in which they work increases. The means for the top and bottom 20% scorers were 4.99 and 3.93, respectively, as expected, especially for top scorers. It would be worth further exploration to examine if specific training could be focused on increasing inclusiveness.

**Self-Efficacy**

Both linear and binary logistic regression models containing all predictors for self-efficacy were statistically significant, indicating the models distinguished between the top 20% and bottom 20% performers of self-efficacy. The linear regression model explained between 41.8% and 46.5%, of the variance and variation, respectively between these two groups of people in the self-efficacy factor of cross-cultural competence. For the binary logistic model, Cox & Snell $R^2$ and Nagelkerke $R^2$ was .45 and .59, respectively. For the linear regression model, one demographic variable (i.e., culture knowledge) and one cognition style variable (i.e., personal fear of invalidity) made a statistically significant contribution to the model and displayed estimated coefficients of .40 and -.67, respectively. For the binary logistic model, the same two factors were significantly correlated and displayed probabilities of .56 and .32, respectively. Similar correlations with the same two factors, a positive correlation of the demographic factor and a negative correlation of the cognition style factor, showed the strength of these models.

These results make sense and would be expected. One would expect as a missionary’s knowledge of the culture in which they work increases, their confidence in their ability to accomplish a goal or an effect would increase, meaning they have high self-efficacy. Similarly, those with a higher personal fear of invalidity would be expected to have decreased self-efficacy. The mean score for self-efficacy for the top 20% scorers was high, as expected. However, the bottom 20% mean score was 3.66, lower than expected. Training efforts could be focused on raising the overall scores for culture knowledge and lowering scores for personal fear of
invalidity, corresponding with an increase in their scores for the overall cross-cultural competence assessment.

**Which Factors Mattered and Which Did Not**

In this section, I discuss which demographic and cognition style factor were statistically significant in correlations to the cross-cultural competence factors. Many of the demographic and half of the cognition style factors did not matter—calling the relevance of these factors in the cross-cultural competence assessment into question. Some results could be accepted logically as aligning with cross-cultural competence, but some results were not expected.

**Demographic Factors That Mattered**

The following demographic factors all significantly correlated to one or more of the 11 cross-cultural competency factors: currently cross-culturally prepared, culture knowledge, years of cross-cultural experience, cross-cultural training, number of missions trips, bachelor’s degree, Africa, Asia, Europe, North America, and South America. Of these factors, the following made sense based on their correlations: currently cross-culturally prepared, culture knowledge (only made sense with one model), years of cross-cultural experience, and cross-cultural training. However, the remaining factors did not make sense: Africa, Asia, Europe, North America, South America, number of missions trips, and bachelor’s degree. The negative correlation of number of missions trips to cultural acuity did not make sense intuitively and neither did any of the continents in which missionaries worked. A Type 1 error could be one explanation for this correlation, as Type 1 errors happen when a factor is correlated based on regression analysis but likely not in the real world. Other possible Type 1 errors could be the negative correlation
between cultural knowledge and cultural acuity, and between the number of missions trips and cultural interest. These correlations would make more sense if they were correlated oppositely.

**Cognition Style Factors That Mattered**

Only two of the four cognition style factors (i.e., rigidity and personal fear of invalidity) were significantly correlated to any of the cross-cultural competence factors. Rigidity correlated only to cultural interest and was a positive correlation, which does not make sense. Why would someone with high rigidity have more interest in the culture they work in? One explanation for this is it could again be a Type 1 error. The other significantly correlated cognition style factor was personal fear of invalidity; it correlated to two cross-cultural competence factors: (a) suspending judgement (positively correlated) and (b) self-efficacy (negatively correlated). Both correlations made sense.

**Demographic Factors That Did Not Matter**

The following demographic factors were not significantly correlated in predicting the outcome of any of the 11 cross-cultural competency factors: Age, gender, ethnic background, ordained/licensed, position, years of ministry experience, number of weeks spent in country, language fluency, amount of time spent with indigenous leaders, and how cross-culturally prepared when began. Intuitively, it would make sense for number of weeks spent in country, language fluency, and amount of time spent with indigenous leaders to correlate with cross-cultural competence; however, these data in this study revealed the level of significance was not high enough to be statistically significant.

**Cognition Style Factors That Did Not Matter**

Two of the four cognition style factors (i.e., personal need for structure and need for cognition) were not statistically significant in predicting outcome for any of the 11 cross-cultural
competence factors. Based on assessment results of this study, this would suggest respondents’ scores revealed these factors’ scores were not significant enough to predict any of the outcomes for their cross-cultural competence factors. Intuitively, three of these factors (i.e., personal need for structure, rigidity, and personal fear of invalidity) should be low and need for cognition should be high for missionaries working cross-culturally to develop indigenous leaders. This research revealed this was the case for the top 20% performers. However, these two factors were also not statistically significant.

**Comparisons With Other Research**

As discussed in Chapter 2, cross-cultural models and assessments are in their infancy and more research is needed to refine and improve existing models and assessments. The military sector, because of its need to improve cross-cultural competence among their personnel, have begun funding studies in recent years to gain a better understanding of cross-cultural competence. In this section, I focus on comparing my findings with one primary research effort studying the Navy SEALs, U.S. Navy Special Forces personnel.

**Cross-Cultural Competence in the Military**

In my review of the literature surrounding cross-cultural competence, including the nascent research developing models and assessments, I found no studies measuring the cross-cultural competence of missionaries. Given recent research examining cross-cultural competence, including models and assessments have been military-related, this study’s methodology was modeled after a recent study examining the cross-cultural competence of U.S. Navy SEALS, the Navy’s Special Forces (Newson, 2020). I used similar instruments from Newson’s (2020) study, including looking at how cognition style factors correlated to cross-cultural competence performance. Newson examined how cognition styles correlated to cross-
cultural competence. He used cognition factors developed by Thompson’s (1998) study of Canadian military personnel.

I was particularly interested in comparing my research results with Newson’s (2020) results. Military personnel and missionaries are similar in many ways as one of their core endeavors as a profession is engaging cross-culturally regularly. First, it is typical for both groups to engage personally and professionally with people from other cultures regularly. Second, both groups are trained to improve their effectiveness in these engagements to some degree. Third, both groups could spend a short time or extended periods of time in different cultures. Fourth, both groups have a specific focus to engage people from other cultures for the purpose of improving relationships to accomplish their missions. Finally, both groups tend to be in stressful, challenging, potentially dangerous, and uncertain situations. Most people in other professions would avoid these situations, but these situations are often both desired and expected for military personnel and missionaries.

**Research Question 1**

First, comparing respondents’ scores in each of the 11 cross-cultural factors, the SEALs’ top scorers scored between 5 and 6 for all 11 eleven factors, and study respondents scored between 5 and 6 for only six of the 11 factors (i.e., relationship orientation, interpersonal skills, cultural interest, inquisitiveness, inclusiveness, and self-efficacy). Next, cultural acuity and suspending judgement scored between one and a little less than one unit less than the SEALs. Finally, scores for the remaining three factors (i.e., cultural relativism, optimism, and stress resilience) were significantly less (approximately two units less) than the top SEAL scorers. Of these three factors, it makes sense SEALs scored much higher in stress resilience for a variety of reasons; for example, SEAL training and the profession in general are extremely stressful and
those who make it through the training and go on to work in this military specialty can handle high levels of stress typically. It is not evident why the other two factors (i.e., cultural relativism and optimism) were so different. It is unknown why SEALs would inherently have a higher level of optimism or a greater ability to accept cultural differences than missionaries.

For the cognition style factors, comparing top scorers’ results from the SEAL study to this study showed SEALs scored about the same as respondents from this study for three factors (i.e., personal need for structure, rigidity, and personal fear of invalidity). However, respondents in the SEAL study showed a much higher score (almost two units better) for the cognition style factor, need for cognition. Comparing the four cognition factors through the SEALs’ scores and the Canadian military scores in Thompson’s (1998) revealed the SEALs’ scores were better for personal need for structure, rigidity, and personal fear of invalidity, but not as good for need for cognition. It is not clear why there is disparity between the scores for these two groups of military people and the respondents in this study. There are clear differences between these groups of respondents, possibly explaining the differences; however, it is outside the scope of this study to determine the reasons for these differences.

**Research Question 2**

Newson (2020) was the first to use Thompson’s (1998) cognition style factors to explore correlations between the factors and the cross-cultural competency factors in the assessments he used for his study of SEALs. I wanted to compare the correlations Newson (2020) discovered between cognition style factors and the same cross-cultural competence factors he used with his study participants to the missionaries in my study. For the SEAL study, the cognition style factor (i.e., need for cognition) was significantly correlated to eight of the 11 cross-cultural factors. Need for cognition was not significantly correlated to any of the 11 factors in this study. This
could align with SEALs’ significantly higher scores than respondents in this study in need for cognition.

Newson (2020) found personal fear of invalidity was correlated negatively to five of the 11 cross-cultural competence factors: cultural acuity, cultural relativism, interpersonal skills, stress resilience, and self-efficacy; his finding made sense. My study revealed personal fear of invalidity correlated to only two cross-cultural competence factors: suspending judgement (positively correlated) and self-efficacy (negatively correlated). Both correlations made sense.

Newson (2020) found rigidity was correlated to three cross-cultural competence factors: cultural relativism (negative correlation) and suspending judgement and self-efficacy (positive correlations). Rigidity only correlated (positively) to one cross-cultural competence factor (i.e., cultural interest) in my study; in Newson’s (2020) study, rigidity should have correlated negatively to these factors. One would expect a person’s ability to withhold judgement, their confidence in themselves to reach their goal, and their cultural interest would all decrease as their rigidity increases. It is not apparent why these positive correlations occurred, and I recommend further research to examine these correlations.

My study found personal need for structure was not correlated to any of the 11 cross-cultural competence factors; however, Newson (2020) found personal need for structure was positively correlated to cultural relativism. This positive correlation was not expected. One would think as a person’s need for guiding knowledge of or a response to certain subject increases, their ability to recognize and accept cultural differences and the corresponding approaches and responses these generate should decrease.

For the demographic factors, Newson (2020) found three of the SEALs’ demographic factors were significantly correlated to the cross-cultural competence factor, suspending
judgement: being an experienced SEAL (negative correlation) and being a new SEAL or an officer SEAL (both positive correlations). These correlations were not expected. Why would a new SEAL have a greater ability to withhold judgement than an experienced SEAL? In my study, Asia and North American, as continents worked in, were the only two correlated demographic factors. It is not apparent why these were correlated but one explanation could be they are Type 1 errors where the regression analysis results did not align with reality.

Research Question 3

Given the small number of interviewees, I acknowledge the study was a modest effort at triangulation and would not provide definitive results about consistency. However, the qualitative portion of the study revealed both consistencies and inconsistencies; therefore, the qualitative portion both challenged and supported results from the quantitative portion of the study.

These qualitative data from the interviews provided valuable information about attributes a missionary from the United States should possess to help make them effective at crossing cultures to develop indigenous leaders from other cultures. Many of the attributes that the interviewees described as being important to cross-cultural competence aligned naturally with the factors used in the regression analysis in the quantitative portion of this study. Six of the 11 cross-cultural competence factors (i.e., inquisitiveness, suspending judgement, optimism, stress resilience, inclusiveness, and self-efficacy) and all four cognition style factors (i.e., personal need for structure, need for cognition, rigidity, and personal fear of invalidity) were found to be important to the respondents. Nuances were discovered for the cross-cultural factors of inquisitiveness, inclusiveness, and self-efficacy, and for the cognition style factors of personal need for structure and personal fear of invalidity. However, only two demographic factors (i.e.,
language proficiency and culture knowledge) were found in these data. Additionally, other attributes not in the quantitative models emerged: paternalism, incarnational, perseverance/patience, humility, contextualization, power imbalance, and spiritual transformation.

These data revealed interesting results about which attributes emerged from direct and nuanced comments by respondents, demonstrating qualitative data that supported and challenged the quantitative results. In the remaining part of this section, I discuss which significant cross-cultural competence attributes from the quantitative results were supported and nuanced supported by the qualitative results, what attributes were not supported and nuanced supported, and finally what emerged from these qualitative data but did not emerge in these quantitative data.

**Supported the Quantitative Results**

Inclusiveness was the cross-cultural competence attribute emerging from these qualitative data in the direct comments to strongly support the quantitative results. Three of the four respondents made direct comments about the importance of this attribute for a missionary from the United States; additionally, all four respondents made nuanced comments concerning this attribute. Direct comments from two of the four respondents about three cross-cultural competence attributes (i.e., suspending judgement, stress resilience, and self-efficacy) supported the quantitative results. Knowledge of the culture was important to one of the four respondents, also supporting the quantitative findings. All four respondents made direct comments about one cross-cultural competence attribute (i.e., inquisitiveness) and one cognition style attribute (i.e., rigidity), which supported the quantitative findings; however, as discussed previously in the quantitative findings section, some of these findings did not make sense. For example, I expected
the correlation between rigidity and cultural interest to be negative, but the quantitative findings showed a positive correlation. Also, the quantitative findings for inquisitiveness revealed two geographic regions (i.e., Africa and South America) were positively correlated. I did not expect these correlations; one possible explanation could be there was a Type 1 error, meaning the real world expected result does not align with these data. The positive correlation between rigidity and cultural interest could also have been a Type 1 error.

These qualitative data of indirect or nuanced comments for inclusiveness also strongly supported the quantitative findings, as all four respondents made nuanced comments about the importance for missionaries to be inclusive. Two respondents emphasized being inclusive was a way for the missionary to demonstrate love and respect of the people in the culture they are working in. All respondents stated the missionary needed to understand what inclusiveness means in the culture where they worked, and the missionary should not impose their own culture’s understanding of inclusiveness onto the indigenous culture’s understanding. Three of the four respondents strongly supported the cognition style attribute, personal fear of invalidity. Like the cross-cultural competence attribute, inclusiveness, the respondents emphasized the missionary needs to understand how the culture in which they work views someone as decisive or not. In the quantitative findings, personal fear of invalidity was positively correlated to suspending judgement; according to the cross-cultural competence assessment, a person with more ability to suspend judgement has a high personal fear of invalidity, meaning holding off making a decision improves a person’s cross-cultural competence. However, qualitative findings for personal fear of invalidity indicated missionaries need to understand cross-cultural competency about being decisive or indecisive is culture dependent.
Finally, the qualitative findings showed a nuanced understanding of self-efficacy that supported the quantitative findings. Two respondents qualified their support of this attribute by highlighting missionaries should be confident in their own abilities to accomplish their mission, but not impose their own view on a topic or solution on the indigenous people of the culture in which they are working to accomplish a task. So, if a missionary scores high for self-efficacy, their overall cross-cultural competence score would increase according to the cross-cultural competence self-assessment; however, this would not be the case in some cultures if the missionary misunderstands how self-efficacy should be applied in a particular culture.

Challenged the Quantitative Results

The cross-cultural competence attribute of relationship orientation did not emerge as significant in the direct comments in the qualitative findings. Cultural acuity was also not mentioned by any of the respondents. Unexpectedly, the quantitative findings showed a significant negative correlation between cultural acuity and cultural interest. This could have been a Type 1 error; therefore, even though the qualitative findings did not reveal cultural acuity was significant and the quantitative findings did reveal significance, the qualitative findings could support the Type 1 error explanation. One cross-cultural competence attribute (i.e., optimism) and one demographic factor (i.e., language proficiency) emerged as important attributes for two of the four respondents, which does not support the quantitative findings stating both attributes were not significantly correlated in any of the models. The cognition style attribute (i.e., personal need for structure) was strongly supported by all four respondents but was not significant in the quantitative findings. Finally, like personal need for structure, need for cognition emerged as important for two of the four respondents but it was not significant in the quantitative findings.
Two of the four respondents’ nuanced comments mentioned the need for cognition as an important attribute for missionaries; however, the missionary needs to understand how this attribute could increase or decrease their cross-cultural competence depending on how it is applied in a particular culture. One of the four respondents provided a nuanced understanding of personal need for structure, emphasizing each culture again could have a unique view of what it means to be structured. As previously mentioned, personal need for structure was not found to be significant in the quantitative findings.

**Qualitative Data Independent of the Quantitative Data**

Contextualization emerged from these qualitative data as an attribute not in the cross-cultural competence assessment, as it was mentioned by three of the four respondents. This attribute also indirectly emerged in these qualitative data in many of the respondents’ nuanced responses. The qualitative findings indicated inclusiveness, personal fear of invalidity, self-efficacy, need for cognition, and personal need for structure need to be understood and applied differently based on the culture, implying contextualization is an important attribute missionaries need to be competent cross-culturally. Six other attributes (i.e., paternalism, incarnational, persistence/patience, humility, power imbalance, and spiritual transformation) emerged as important, but all were only mentioned by one of the four respondents.

**Potential Future Research**

This research was conducted on a small group of missionaries from one church group in the United States. It would be helpful to conduct a similar study of missionaries from other Christian denominations and missions organizations. Would additional research into other missions groups reveal similar results? How would different demographic data impact the self-assessment results?
As discussed previously, I used a self-assessment for quantitative portion of this study, which was a weakness in assessment as it inherently lacked robustness. Broadening the measurement spectrum and incorporating more dynamic measurements would improve cross-cultural competence assessments. Additional research into expanding these measurements would be beneficial. Further qualitative examination of the factors used in the survey instruments could be done to help capture the dynamic aspects of cross-cultural interactions. This could lead to ways to incorporate how attributes need to be applied contextually in certain cultures and contexts.

Finally, qualitative findings suggest further research is needed regarding attributes in the cross-cultural competence assessment to affirm the attributes included in the assessment not supported by the qualitative findings. Also, attributes emerging from the qualitative findings not found in the cross-cultural competence assessment should be studied to determine if these attributes are important in assessing one’s cross-cultural competence. The more research into all areas will lead to a more developed and accurate assessment of cross-cultural competence.
References


Open Bible. (2020). *Calculating the time and cost of Paul’s missionary journeys.*

https://etd.ohiolink.edu/apexprod/rws_etd/send_file/send?accession=kent1397824661&disposition=inline

https://digital.sandiego.edu/cgi/viewcontent.cgi?article=1178&context=dissertations

https://doi.org/10.1037/e538462013-008


https://corescholar.libraries.wright.edu/cgi/viewcontent.cgi?article=1798&context=etd_al


Turnley, J. G. (2011). *Cross-cultural competence and small groups: Why SOF are the way SOF are.* Joint Special Operations University Press.


APPENDIX A

Cross-Cultural Competence Self-Assessment

1. I would have trouble predicting the long-term effects of my actions in a new country.
2. I would easily change my outward appearance based on the situation, such as switching from a ministry to a non-ministry setting.
3. On a missions trip, I would be good at working with the local people to give me needed information.
4. The views and beliefs of American culture are generally superior to those of the country/countries I visit.
5. My personality is such that most people are quickly drawn to me.
6. I often have trouble envisioning the long-term effects of my actions.
7. I am good at getting others to see my point of view.
8. I do better at maintaining an approach until it works versus changing methods.
9. I would befriend locals during missions trips to support the trip’s success.
10. I often must rely on others to adjust my perceptions of what is really going on in a group or setting.
11. As an American, I probably do not have as many biases as do people from other cultures.
12. Without the help of fellow team members, I would struggle in figuring out what the locals are doing in missions trip situations.
13. I would quickly get used to unfamiliar customs on missions trips.
14. I devote significant time to building many lasting relationships in my life.
15. I often “feel the pain” of others when someone is sharing a sad story.
16. If I knew I was going to do missions work in another country, I would spend some free time learning about the cultural customs before I left.
17. I would easily and believably pretend to be compassionate with a country’s citizens, to achieve the missions trip objectives.
18. I find the thought of negotiating with indigenous leaders unpleasant.
19. My own sense of humor would be helpful during missions trips to put foreign locals at ease.
20. U.S. missions leaders need to focus less on compassion and more on working on the overall objectives when dealing with indigenous people.
21. I would find it easy to be causal and friendly with foreign citizens during missions trips.
22. When watching two people have a discussion, I can pick up on the differences between what is being said and what is really felt.
23. I enjoy making sense of complex situations.
24. Interacting with locals to build relationships during missions trips would be worth any real or apparent risks.
25. I sometimes wonder how my own culture influences how I see things.
26. My personality is such that, in a foreign country, I could quickly put an irate citizen at ease.
27. I possess the skills needed to persuade foreign citizens to provide sensitive information.
28. I consider myself as being oblivious to what is really going on in group interactions.
29. I would have little problem figuring out the heart of the matter when observing a disagreement between missions team members and foreign citizens.
30. It is easy for me to quickly gain the trust of others through casual discussion.
31. If I find a common practice of the locals offensive while in a foreign country, I would have trouble understanding why the locals act that way.
32. Prior to a missions trip, I would try to learn the basics of the language before going, whether asked to or not.
33. Since we are often on missions trips to help develop indigenous leaders in other countries, these countries should adjust to our customs, not the other way around.
34. I can win over a group of strangers with ease.
35. I would probably rely on another team member to strike up initial conversations with foreign citizens when on a missions trip, as this is not my strong suit.
36. I could see my temper getting the best of me when interacting with unappreciative foreign citizens during a missions trip.
37. I am a compassionate and trusting person in general.
38. It would be hard for me to understand the intent of foreign citizens with whom I am communicating.
39. I use my sense of humor to quickly put others at ease.
40. If an indigenous person I am training was resistant to my instructions, I would put myself in their shoes to figure out why.
41. In trying to persuade an indigenous leader to let me or the missions team visit a certain location, village, or area, I would probably give up my efforts if my first attempts at persuasion did not work.
42. If you know the basic do’s and don’ts of a country, and some language, that’s all you need to get by to interact with locals during missions trips.
43. Negotiating with indigenous leaders during a missions trip would fit my abilities.
44. I get upset when I hear people making fun of people from other countries.

On a scale of 1 to 6:
1 – Strongly Disagree
2 – Moderately Disagree
3 – Slightly Disagree
4 – Slightly Agree
5 – Moderately Agree
6 – Strongly Agree

Inquisitiveness
1. I enjoy getting to know people.
2. I enjoy meeting new people and learning about their life.
3. Getting to know new people is fascinating to me.
4. I enjoy learning about others’ behavioral patterns.
5. I enjoy learning how others’ think.

Suspending Judgment
1. I would rather wait on additional information than make a quick decision.
2. I prefer to make a decision only after I review available information.
3. I collect all information possible on an issue before I make a decision.
4. I take as much time as needed to make a decision.
5. I like to feel certain that I have considered all available information before I make a decision.

Optimism
1. In uncertain times, I usually expect the best.
2. If something can go wrong for me, it will.
3. I’m always optimistic about my future.
4. I hardly ever expect things to go my way.
5. I rarely count on good things happening to me.
6. Overall, I expect more good things to happen to me than bad.

Stress Resilience
1. I tend to bounce back quickly after hard times.
2. I have a hard time making it through stressful events.
3. It does not take me long to recover from stressful events.
4. It is hard for me to snap back when something bad happens.
5. I usually come through difficult times with little trouble.
6. I tend to take a long time to get over set-backs in my life.

Inclusiveness
1. I enjoy events where I can meet people from a variety of backgrounds.
2. Learning about the different cultures of the world intrigues me.
3. Understanding how a person is different from me greatly enhances our relationship.
4. I enjoy learning about the traditions of other cultures.
5. I would like to go to events that feature activities from other countries.
6. I gain insight from other people’s experiences.
7. I feel comfortable talking with individuals of a different race.

On a scale of 1 to 5:
1 – Strongly Disagree
2 – Disagree
3 – Neither Agree nor Disagree
4 – Agree
5 – Strongly Agree

Self-Efficacy
1. I am sure I would be able to handle all the stress of adjusting to a culture that is new to me.
2. I am confident that I can get used to the unusual conditions of living in another culture.
3. I can always manage to solve difficult problems if I try hard enough.
4. It is easy for me to stick to my aims and accomplish my goals.
5. I am confident that I could deal efficiently with unexpected events.
6. I can remain calm when facing difficulties because I can rely on my coping abilities.
7. No matter what comes my way, I’m usually able to handle it.

On a scale of 1 to 6:
1 – Strongly Disagree
2 – Moderately Disagree
3 – Slightly Disagree
4 – Slightly Agree
5 – Moderately Agree
6 – Strongly Agree

*Lie Scale.* A score greater than 15 results in removal of a participant.
1. I have never been late for an appointment.
2. I have never known someone I did not like.
3. I believe that one should never engage in leisure activities.
4. I feel that there are no such things as an honest mistake.
5. I have never hurt another person’s feelings.

On a scale of 1 to 6:
1 – Strongly Disagree
2 – Moderately Disagree
3 – Slightly Disagree
4 – Slightly Agree
5 – Moderately Agree
6 – Strongly Agree
APPENDIX B

Cognition Style Self-Assessment

Personal Need for Structure
1. It upsets me to go into a situation without knowing what I can expect from it.
2. I’m not bothered by things that upset my daily routine.
3. I enjoy having a clear and structured mode of life.
4. I like a place for everything and everything in its place.
5. I like being spontaneous.
6. I find that a well-ordered life with regular hours makes my life tedious.
7. I don’t like situations that are uncertain.
8. I hate to change my plans at the last minute.
9. I hate to be with people that are unpredictable.
10. I find that a consistent routine enables me to enjoy life more.
11. I enjoy the exhilaration of being put in unpredictable situations.
12. I become uncomfortable when the rules in a situation are not clear.

On a scale of 1 to 6:

1 – Strongly Disagree
2 – Moderately Disagree
3 – Slightly Disagree
4 – Slightly Agree
5 – Moderately Disagree
6 – Strongly Disagree

Personal Fear of Invalidity
1. I may struggle with a few decisions but not very often.
2. I never put off making important decisions.
3. Sometimes I become impatient over my indecisiveness.
4. Sometimes I see so many options to a situation that it is really confusing.
5. I can be reluctant to commit myself to something because of the possibility that I might be wrong.
6. I tend to struggle with most decisions.
7. Even after making an important decision I continue to think about the pros and cons to make sure I am not wrong.
8. Regardless of whether others see an event as positive or negative I don’t mind committing myself to it.
9. I prefer situations where I do not decide immediately.
10. I rarely doubt that the course of action I have selected will be correct.
11. I tend to continue to evaluate recently made decisions.
12. I wish I did not worry so much about making errors.
14. I find myself reluctant to commit to new ideas but find little comfort in remaining with the tried and true.
On a scale of 1 to 6:
1 – Strongly Disagree
2 – Moderately Disagree
3 – Slightly Disagree
4 – Slightly Agree
5 – Moderately Agree
6 – Strongly Agree

Need for Cognition
1. I prefer complex to simple problems.
2. I would like to have the responsibility of handling a situation that requires a lot of thinking.
3. Thinking is not my idea of fun.
4. I would rather do something that requires little thought than something that is sure to challenge my abilities.
5. I try to anticipate and avoid situations where there is likely the chance that I will have to think in depth about something.
6. I find satisfaction in deliberating hard and for long hours.
7. I only think as hard as I have to.
8. I prefer to think about small, daily projects to [rather than] long term ones.
9. I like tasks that required little thought once I’ve learned them.
10. The idea of relying on thought to make my way to the top appeals to me.
11. I really enjoy a task that involves coming up with new solutions.
12. Learning new ways to think doesn’t excite me very much.
13. I prefer my life to be filled with puzzles that I must solve.
14. The note of thinking abstractly is appealing to me.
15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
16. I feel relief rather than satisfaction after completing a task that required a lot of mental effort.
17. It’s enough for me that something gets the job done; I don’t care how or why it works.
18. I usually end up deliberating about issues even when they do not affect me personally.

On a scale of 1 to 8
1 – Very Strongly Disagree
2 – Strongly Disagree
3 – Moderately Disagree
4 – Slightly Disagree
5 – Slightly Agree
6 – Moderately Agree
7 – Strongly Agree
8 – Very Strongly Agree

Rigidity
1. I do not enjoy having to adapt myself to new and unusual situations.
2. I prefer to stop and thing before I act on even trifling matters.
3. I would not like the kind of work which involves a large number of different activities.
4. I usually find that one way of attacking a problem is best, even though it doesn’t seem to work in the beginning.
5. I dislike having to learn new ways of doing things.
6. I am a methodical person in whatever I do.
7. I am usually able to keep a job longer that most people.
8. I think that it is usually wise to do things in a conventional way.
9. I always finish the task I start even if they are not important.
10. People who go about their work methodically are almost always successful.
11. When I have undertaken a task, I find it difficult to set it aside, even for a short amount of time.
12. I am very conscientious about things such as locking doors and turning off lights.
13. I have done many things on the spur of the moment.
14. It is important to be prompt about appointments and the like.
15. I usually dislike to set aside a task that I have undertaken unit it is finished.
16. I am inclined to go form one activity to another without continuing on any one for too long.
17. I prefer to do things according to a routine which I plan myself.
18. I like a great deal of variety in my work.
19. An expert who doesn’t come up with a definite answer probably doesn’t know too much.
20. It is more fun to tackle a complicated problem than to solve a simple one.
21. I would like to live in a foreign country for a while.
22. Many of our most important decisions are based on insufficient information.

On a scale of 1 to 6:
1 – Strongly Disagree
2 – Moderately Disagree
3 – Slightly Disagree
4 – Slightly Agree
5 – Moderately Agree
6 – Strongly Agree
APPENDIX C

Demographic Questionnaire

1. My age is: _________

2. The gender I most identify with is:
   1 = Male
   2 = Female
   3 = Other:________

3. Which category best describes you?
   1 = White (e.g., German, Irish, English, Italian, Polish, French)
   2 = Hispanic, Latino or Spanish origin (e.g., Mexican or Mexican American, Puerto Rican, Cuban, Salvadoran, Dominican, Colombian)
   3 = Black or African American (e.g., African American, Jamaican, Haitian, Nigerian, Ethiopian, Somalian)
   4 = Asian (e.g., Chinese, Filipino, Asian Indian, Vietnamese, Korean, Japanese)
   5 = American Indian or Alaska Native (e.g., Navajo nation, Blackfeet tribe, Mayan, Aztec, Native Village or Barrow Inupiat Traditional Government, Nome Eskimo Community)
   6 = Middle Eastern or North African (e.g., Lebanese, Iranian, Egyptian, Syrian, Moroccan, Algerian)
   7 = Native Hawaiian or Other Pacific Islander (e.g., Native Hawaiian, Samoan, Chamorro, Tongan, Fijian)
   8 = Some other race, ethnicity or origin

4. What is the highest degree or level of school you have completed? *If currently enrolled, highest degree received.*
   1 = Did not complete high school
   2 = High school graduate, diploma or the equivalent (e.g., GED)
   3 = Trade/technical/vocational training
   4 = Some college credit, no degree
   5 = Associate degree
   6 = Bachelor’s degree
   7 = Master’s degree
   8 = Professional degree
   9 = Doctorate degree

5. I am:
   1 = Ordained
   2 = Licensed
   3 = Not ordained or licensed

6. I am currently a
   1 = Lead/senior pastor
   2 = Paid church staff member
3 = Lay pastor/leader
4 = Other. If none of the above answers apply, please provide your answer here____________________

7. How many years of ministry (for example, lay, professional, paid, volunteer, church or para-church service) experience do you have? ______________

8. How many years of cross-cultural experience (interacting with people in other countries) do you have? ______________

For questions 9 – 11, in the last five years:

9. I have worked in the following country/countries.
________________________________

10. I have been on ___ overseas missions trips.

11. I have spent _____ weeks in the country/countries I work in.

12. How fluent are you in the language of the people in the country you primarily work in (if you work in more than one country choose the country you spend the most time in developing leaders)?
   1 = No proficiency
   2 = Elementary proficiency
   3 = Limited working proficiency
   4 = Professional working proficiency
   5 = Native/bilingual proficiency

13. How much time (in person, virtually, voice, email, chat, social media) do you spend interacting with the people you are developing in other countries?
   1 = None
   2 = Very little
   3 = A moderate amount
   4 = A lot
   5 = A great deal

14. What is your level of knowledge of the country’s/countries’ culture that you primarily work in?
   1 = None at all
   2 = A little
   3 = A moderate amount
   4 = A lot
   5 = A great deal

15. How much formal and/or informal cross-cultural training have you had?
   1 = None at all
16. How cross-culturally prepared were you when you first began developing leaders cross culturally?
1 = Not at all
2 = Very little
3 = A moderate amount
4 = A lot
5 = A great deal

17. How cross-culturally prepared are you currently to develop leaders from other countries?
1 = Not at all
2 = Very little
3 = A moderate amount
4 = A lot
5 = A great deal
Jul 21, 2021 10:34:14 AM PDT

Craig Goodman  
Sch of Leadership & Ed Science

Re: Expedited - Initial - IRB-2021-394, Examining the Cross-Cultural Competence of U.S. Christian Missionaries Engaged in Developing Leaders

Dear Craig Goodman:

The Institutional Review Board has rendered the decision below for IRB-2021-394, Examining the Cross-Cultural Competence of U.S. Christian Missionaries Engaged in Developing Leaders.

Decision: Approved

Selected Category: 7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Findings:
Research Notes:

Internal Notes:

The USD IRB requires annual renewal of all active studies reviewed and approved by the IRB. Please submit an application for renewal prior to the annual anniversary date of initial study approval. If an application for renewal is not received, the study will be administratively closed.

Note: We send IRB correspondence regarding student research to the faculty advisor, who bears the ultimate responsibility for the conduct of the research. We request that the faculty advisor share this correspondence with the student researcher.

The next deadline for submitting project proposals to the Provost's Office for full review is N/A. You may submit a project proposal for expedited or exempt review at any time.

Sincerely,

[Signature]
Eileen K. Fry-Bowers, PhD, JD
Administrator, Institutional Review Board

Office of the Vice President and Provost
Hughes Administration Center, Room 214
5998 Alcalá Park, San Diego, CA 92110-2492
Phone (619) 260-4553 • Fax (619) 260-2210 • www.sandiego.edu
Jul 15, 2021 10:02:05 AM PDT

Craig Goodman
Sch of Leadership & Ed Science

Re: Expedited - Initial - IRB-2021-376, Cross-Cultural Competence: A Qualitative Study from the Indigenous Leader’s Perspective

Dear Craig Goodman:

The Institutional Review Board has rendered the decision below for IRB-2021-376, Cross-Cultural Competence: A Qualitative Study from the Indigenous Leader’s Perspective.

Decision: Approved

Selected Category: 7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Findings:
Research Notes:

Internal Notes:

*The USD IRB requires annual renewal of all active studies reviewed and approved by the IRB. Please submit an application for renewal prior to the annual anniversary date of initial study approval.*

*If an application for renewal is not received, the study will be administratively closed.*

*Note: We send IRB correspondence regarding student research to the faculty advisor, who bears the ultimate responsibility for the conduct of the research. We request that the faculty advisor share this correspondence with the student researcher.*

*The next deadline for submitting project proposals to the Provost’s Office for full review is N/A. You may submit a project proposal for expedited or exempt review at any time.*

*Sincerely,*

[Signature]

Eileen K. Fry-Bowers, PhD, JD
Administrator, Institutional Review Board

Office of the Vice President and Provost
Hughes Administration Center, Room 214
5998 Alcalá Park, San Diego, CA 92110-2492
Phone (619) 260-4553 • Fax (619) 260-2210 • [www.sandiego.edu](http://www.sandiego.edu)