

EXPLORING THE RELATIONSHIP BETWEEN CULTURAL INTELLIGENCE,
TRANSFORMATIONAL LEADERSHIP, AND BURNOUT IN DOCTORATE OF EDUCATION
STUDENTS

by
D. Michelle Stokes
Liberty University

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

Liberty University
November, 2013

Exploring the relationship between cultural intelligence, transformational leadership, and burnout in
doctorate of education students
by D. Michelle Stokes

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

Liberty University, Lynchburg, VA

November, 2013

APPROVED BY:

Amanda Rockinson-Szapkiw, Ed.D., Committee Chair

Charles Smith, Ph.D., Committee Member

Emerson Keung, Ed.D., Committee Member

Scott Watson, Ph.D., Associate Dean, Advanced Programs

ABSTRACT

This correlational study used standard multiple regression to determine if there was a relationship between the factors of cultural intelligence (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ) and transformational leadership in doctoral students. This study also sought to determine the best predictor of burnout by using a standard multiple regression to determine which factors of cultural intelligence and transformational leadership predicted doctorate of education students' levels of burnout. The sample size for the first research question was 191 participants from a large private university in Virginia, and the sample size for question number two was 178 participants from the same university. The Cultural Intelligence Scale (CQS) measured cultural intelligence. The Multifactor Leadership Questionnaire (MLQ) measured transformational leadership, and the Maslach Burnout Inventory-Educators Survey (MBI-ES) measured burnout. The results indicated that the predictive model for transformational leadership was significant. Metacognitive CQ made the strongest unique contribution to the transformational leadership model with a Beta value of .53. Results also demonstrated that the predictive model for burnout was significant. The variables that significantly contributed to the model included motivational CQ, inspirational motivation, intellectual stimulation, and individualized consideration.

Descriptors: Cultural intelligence, transformational leadership, burnout, MLQ, MBI, CQS, effective leadership, higher education

Dedication/ Acknowledgments Pages

I would like to first thank the Lord for daily loading me up with benefits and new mercies every morning. Without you Lord, I cannot breathe! I also want to thank my committee of Dr. Amanda Szapkiw, Dr. Charles Smith, and Dr. Emerson Keung. Thank you for your hard work, prayers, patience, kindness, and support.

I started this journey in the Ed.S. program in May 2009, not knowing whether I wanted to continue into the Ed.D. I started the Ed.S. the same week my mother died. I decided that week that I would stay with it and throughout all of the turmoil, heartache, and pain I persevered with my mother's voice always in my ear telling me "You can do it!" She was my biggest fan and cheerleader. Without her inspiration I would not have been able to complete this task. Even from the grave she lifts me up!

Thanks to my father, Robert Stokes, my dearest friend and sister Kwamine Simpson, and my dear friend and former colleague, Dr. Janet Deck. They all prayed for me. They all listened to me whine and cry and want to give up. They all encouraged me to keep going and I thank you all from the bottom of my heart. You inspire me each day to be a better woman!

Table of Contents

CHAPTER ONE: INTRODUCTION.....	8
Introduction	8
Background	11
Problem Statement	15
Purpose Statement	16
Research Questions	18
Hypotheses	18
Identification of Variables.....	21
Definitions	21
Research Summary.....	23
CHAPTER TWO: REVIEW OF THE LITERATURE	25
CHAPTER THREE: METHODOLOGY	48
Introduction	48
Design.....	48
Participants	49
Setting.....	50
Instrumentation.....	51
Procedures	56
Data Analysis	57
CHAPTER FOUR: FINDINGS	59
CHAPTER FIVE: DISCUSSION.....	76
REFERENCES	89
APPENDICES	108

List of Tables

Table 1 Summary of Means and Standard Deviations ($N = 191$).....	62
Table 2 Intercorrelations among Variables ($N = 178$).....	62
Table 3 Contributions of Predictor Variables ($N = 191$).....	66
Table 4 Summary of Means and Standard Deviations ($N = 178$).....	69
Table 5 Intercorrelations among Variables ($N = 178$).....	70
Table 6 Contributions of Predictor Variables ($N = 178$).....	75

List of Figures

Figure 1 Normal P-P Plot of Regression (Research Question One).....	64
Figure 2 Scatterplot (Research Question One).....	65
Figure 3 Normal P-P Plot of Regression (Research Question Two).....	72
Figure 4 Scatterplot (Research Question Two).....	73

CHAPTER ONE: INTRODUCTION

Educational leaders have a responsibility to be effective in a global society.

Globalization has perpetuated the need to have skills and abilities to interact with a diverse population (Friedman, 2005; Kulkarni, 2006; Nayyar, 2008; Vaezi & Ghorouneh, 2010). In America, there are approximately 1 million immigrants per year (Hodgkinson, 2002). It is predicted that a 61% increase will occur over the next 20 years for the Hispanic and Asian populations in the United States (Hodgkinson, 2002). As an ever-increasing number of foreign-born students are entering the traditional and online classrooms educators need to be ready to meet the needs of culturally diverse students. Given the increase in globalization, leaders need to not only have skills to serve a more diverse population, individuals in leadership also need to be aware of and find ways to protect against increased levels of stress often associated with leadership in a global society.

This study focused on doctorate of education students who currently hold or will one day hold leadership positions within K-12 or higher education. The need for current doctoral programs that address the issues of globalization, cultural sensitivity, and leadership style is important. The component of burnout is also a major part of this study as leaders who experience high levels of burnout are less likely to be as effective as they should be and conversely, those who experience lower levels of burnout are more effective (DeHoogh & Den Hartog, 2009; Den Hartog, House, Hanges, Ruiz-Quintanilla, & Dorfman, 1999). This study is unique in that this population of students has not been surveyed in regard to the constructs of cultural intelligence, transformational leadership, and burnout. The relationship between the three is important for educational leaders, education programs, and their effectiveness.

Effectiveness in leadership has been defined in many ways throughout the literature; however, transformational leadership is one of the ways effective leadership is most often conceptualized (Avolio, 2007; Avolio & Bass, B. M. 2004). Research has found transformational leadership to be more effective than transactional leadership (Bass, B. M. & Riggio, 2006). Given the empirical support, transformational leadership was used to conceptualize effective leadership in this study. Then, as this study focused upon effective leadership in a global society, the researcher considered the influence of cultural factors that influence effective leadership, thus cultural intelligence was used as a way to better understand leaders' knowledge of and integration in diverse cultural settings. This provided the researcher with greater insight into the leaders' cultural intelligence. Finally, burnout was considered a factor and its relationship to transformational leadership and cultural intelligence was viewed as important to understand leadership effectiveness. Burned out leaders may not be effective leaders in a global society and understanding causes of burnout and ways to decrease burnout is important for educational leaders (Alon & Higgins, 2005; Bullock, 2011; Chandler, 2009).

Research has been conducted with the construct of transformational leadership in university presidents (Basham, 2012), senior executives and CEO's (Bass, B.M. & Yokochi, 1991), and others, but not with doctorate of education students. Transformational leadership has proven to be more effective than transactional leadership, however; this study was only interested in the transformational leadership style within the population of doctorate of education students.

Cultural intelligence research has been conducted with managers (Deng & Gibson, 2009), leaders and followers (Groves & Feyerherm, 2011), and undergraduate students (Ang, Van Dyne, & Koh, 2006), but not with the population of doctorate of education students. Research in

the area of cultural intelligence has shown that those high in cultural sensitivity are more effective leaders and relate well to culturally diverse populations within the workplace. This study seeks to determine if the same holds true in educational leadership with doctorate of education students.

Burnout research has been conducted with college and university presidents (Gentry, Katz, & McFeeters, 2009), in hospitality management (Bullock, 2011), police officers (Burke & Mikkelsen, 2006), and with pastors (Chandler, 2009), but not with a sample of doctorate of education students. Burnout can occur and does occur in a global society and research has proven so with the above types of populations. Burnout affects leadership and organizational success. This study seeks to determine if these same results hold true within the population of doctorate of education students.

Two of the above constructs have combined to form the basis of research in these populations as well as in education, but all three constructs have not been studied to determine their relationships with each other and the combination has not been researched with the current population of doctorate of education students. Research is needed in this area. The purpose of this study is to determine the relationship between cultural intelligence and transformational leadership as well as to examine what is the best predictor (factors of cultural intelligence and/or transformational leadership) of level of burnout. This chapter includes a review of research on effective leadership, cultural intelligence, and burnout as well as the statement of the problem, purpose of the study, significance of the study, research questions, hypotheses and null hypotheses, identification of predictor and criterion variables.

Background

Leadership has been described as transformational, transactional, laissez-faire, democratic, authoritarian, and in many other ways. Among social scientists, leadership has been well discussed over the years (Avolio, Sosik, Jung, & Berson, 2003; Bass, B. M., 1990; Bennis, 2007; Kouzes & Posner, 2007). Several theorists have concluded that effective leadership is based on traits, skills, and abilities (Eagly, Karau, & Makhijani, 1995; Judge, Bono, Ilies, & Gerhardt, 2002; Judge, Colbert, & Ilies, 2004; Mumford, Campion, & Morgeson, 2007). Still others have found that effective leadership is based on the leaders' behaviors (Judge & Piccolo, 2004; Judge & Piccolo, & Ilies 2004).

Research also suggests that effective leaders are transformational leaders (Avolio, 2007; Avolio & Bass, B.M., 2004; Avolio, et al., 2003; Bass, B.M., 1985; Bono & Judge, 2004), and that transformational leadership is the most desired (Den Hartog, et al.; House, 1999) and effective (Bass, B.M., 1997; Bass, B.M. & Riggio, 2006) leadership style. In education, instructional leadership is also highly effective (Hallinger, 2003, Robinson, Lloyd, & Rowe, 2008; Leithwood & Jantzi, 2000; Marks & Printy, 2003; Valentine & Prater, 2011). This research study focuses on the effectiveness of transformational leadership (Avolio, 2007; Avolio & Bass, B.M., 2004) and not on instructional leadership because the researcher was not just interested in viewing the effective transformational leader as one who influences student achievement and outcomes, but as one who influences the entire organization (Leithwood & Jantzi, 2000; Marks & Printy, 2003). Transformational leadership is a construct consistently deemed appropriate to study effective leadership (Avolio, 2007; Bass, B.M. & Riggio, 2006; Den Hartog, et al., 1999). B. M. Bass (1985) defined *transformational leadership* as the ability of a leader to arouse subordinates' awareness and interest in the organization, to enhance the

confidence of subordinates, and to motivate them to consider higher levels of achievement and growth.

An even greater part of a leader's ability may be in seeking to understand and interact with diverse people in order to lead, manage, and motivate. Globalization has resulted in an increase in diversity in education. There is expected to be an increase in diversity enrollment based on race/ethnicity at degree-granting institutions (Hussar, 2005). Enrollment for Black undergraduates is expected to increase from 14% to 15% and for Hispanic undergraduates from 12% to 15% by 2019 (Hussar & Bailey, 2011). White enrollment on the other hand, is expected to decrease from 63% to 58% by 2019 (Hussar & Bailey, 2011). Thus, multicultural competence should be included in the discussion of effective leadership. Competence in working with a diverse population has been conceptualized in a variety of ways; however, cultural intelligence (CQ) is the manner it will be conceptualized in this study. Cultural intelligence (CQ) is not linked to understanding one specific culture, but involves the individual's capacity to adjust and adapt to many differing cultural situations (Ang, et al., 2006; Earley & Ang, 2003; Ng & Earley, 2006).

Cultural intelligence (CQ) is “an individual's capability to function and manage effectively in culturally diverse settings, [CQ] is a multidimensional construct targeted at situations involving cross-cultural interactions arising from differences in race, ethnicity, and nationality” (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007, p. 336). CQ includes the four components of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ (Ang, Van Dyne, Koh, & Ng, 2004). Cultural intelligence (CQ) is known to increase an individual's ability to connect with others outside his own culture (Ang, et al., 2007; Earley & Ang, 2003). Research has shown a positive relationship between cultural intelligence

and transformational leadership in many fields of study. For example, Deng and Gibson (2009) studied expatriate and local Chinese managers working in Australian businesses in Shanghai and Beijing. Their findings indicated that cross-cultural leadership competences included transformational leadership, emotional intelligence, and cultural intelligence. They also suggested that companies should focus their attention on the attitudes and cognitive enablers of leaders, and less on the skills of leaders. Likewise, Ismail, Reza, and Mahdi (2012) studied 152 managers and found that there was a positive relationship between cultural intelligence and transformational leadership, and between each subset of cultural intelligence and transformational leadership. They suggested that cultural intelligence was a basic factor in transformational leadership. As this researcher examined the current literature on the topic, most research has centered on leaders in existing leadership positions in education (Basham, 2012; Bensimon, 1993; Bolden, Petrov, & Gosling, 2007, 2008; Huang & Liao, 2011; Keung & Rockinson-Szapkiw, 2013; Muresnsky, 2000) and outside the field of education (Bennis, 2007; Bono & Judge, 2004; Deng & Gibson, 2009). However, the current population of doctorate of education students has not been studied. As research in the area of business has demonstrated that cultural intelligence (CQ) plays a significant role in effective leadership (Alon & Higgins, 2005; Ang & Inkpen, 2008; Deng & Gibson, 2009), it may be an important factor in effective educational leadership within this population of doctorate of education students. These factors, both transformational leadership and cultural intelligence, may also be important in the mental and emotional health of individuals getting ready to enter the field of educational leadership and scholarship.

Cultural Intelligence, Effective Leadership, and Emotional Health

As leaders enter a more diverse society, their level of burnout increases (Farber, 2000) and cultural intelligence may be a protective factor against this. High levels of cultural intelligence (CQ) are related to fewer social problems in cross-cultural interactions and lower levels of depression (Ward, Fischer, Lam, & Hall, 2009). Those with higher CQ may be better prepared to regulate stress associated with cultural interactions in their leadership positions (Farber, 2000), and the ability to regulate stress can reduce the risk of burnout (Maslach, 2003a). Transformational leadership also has a significant positive association with personal accomplishment, and a negative relationship with depersonalization and emotional exhaustion (Anastasios & Panayiotis, 2010). Individuals with a passive avoidance leadership style tend to have higher levels of burnout (Anastasios & Panayiotis, 2010). Burnout can have a negative effect on leaders' as well as subordinates' wellbeing, health, self-esteem, job-satisfaction, depression, organizational demands, home life, and other issues (Maslach, 2003a; Maslach, Schaufeli, & Leiter, 2001; Melamed, Shirom, Toker, Berliner, & Shapira, 2006). Occurrences of burnout may cause organizations to suffer and be affected in negative ways such as increased costs in replacing employees, higher medical costs in treating those with burnout, and more absences for employees who experience high levels of burnout (Amarjit, Flaschner, & Shachar, 2006).

In summary, research in fields such as business suggests that transformational leaders tend to have fewer incidences of burnout, and cultural intelligence may protect against burnout. The relationship between transformational leadership and burnout has proven to be one that is positive with personal accomplishment, but negative with depersonalization and emotional exhaustion (Anastasios & Panayiotis, 2010). Also, cultural intelligence may protect against

burnout based on previous research that states that those higher in cultural intelligence have lower burnout levels because of their ability to regulate stress (Farber, 2000). As this researcher examined the current literature on the topic, most research has centered on leaders in existing leadership positions in education (Basham, 2012; Bensimon, 1993; Bolden, et al., 2007, 2008; Muresnsky, 2000) and outside the field of education (Bennis, 2007; Bono & Judge, 2004; Deng & Gibson, 2009). Thus, this theory needs to be tested in the current population of doctorate of education students to determine if the relationships between the variables of transformational leadership, cultural intelligence, and burnout hold true.

Statement of the Problem

By 2015, workers over 55 years of age are projected to make up approximately one-fifth of the workforce (Tishman, Van Looy, & Bruyere, 2012). Thus, doctoral students need to be ready to assume leadership roles such as principal, president, dean, department chair, provost, or vice president upon conferral of their degrees in a globalized world that is technologically savvy and diverse (Basham, 2012; Bolden, et al., 2008; Gentry, et al., 2009; Glowacki-Dudka & Treff, 2011; Parkman & Beard, 2008). Doctoral students will also become scholarly leaders in their field not only understanding pedagogy, but theory and research as well. A scholar is one who is a specialist in her chosen field of study. The higher-level thinking and learning skills necessary to experience success in a doctoral program will transform students from student to scholar (Levassuer, 2006). Doctoral programs need to ensure that students are appropriately equipped to become effective leaders and scholars. Research has focused on teacher and administrator stress, burnout, and job satisfaction (Maslach, 1976), improving pedagogy (Casanave & Hubbard, 1992; Kamler & Thomson, 2006) in order to improve writing, and epistemological perspectives in educational research in order to better prepare doctoral students (Pallas, 2001). Research has

also focused on the supervision of doctoral students (Lee, 2008). However, after doing a search of the literature, no studies focused on the variable of cultural intelligence, transformational leadership, and burnout in relationship to the doctoral population or their training. If a relationship among these variables is found, it will enhance the body of literature for pedagogical as well as practical working purposes. Understanding the factors that contribute to the development of an effective leadership style as well as factors that help protect individuals (leaders) from burnout are important to study and analyze in order to inform curriculum.

Purpose of the Study

The purpose of this correlation study is to determine what cultural intelligence factor(s) best predict(s) transformational leadership in doctorate of education students. This study also seeks to examine what is the best predictor (factors of cultural intelligence and/or transformational leadership) of level of burnout. Determining whether these factors are intrinsic or extrinsic (Koustelios & Tsigilis, 2005; Raiger, 2005) is important for educational leaders in terms of training for the future and in response to globalization. External or extrinsic factors of burnout are globalization, technology, work environment, and work culture to name a few (Koustelios & Tsigilis, 2005; Raiger, 2005). Because of globalization, leaders are highly fatigued and stressed which could lead to burnout (Kokkinos, 2011; Kulkarni, 2006; Marchal & Kegelis, 2003). Internal or intrinsic factors of burnout may well be transformational leadership and/or cultural intelligence, which is what this research seeks to better understand. The theories utilized for this research were transformational leadership, cultural intelligence, and burnout. Transformational leadership was first developed by Downton in 1973 with revolutionary, reforming, ordinary, rebellious leaders. Transformational leadership theory then became more complete with Burns in 1978 when he studied political leaders. Today Avolio and B.M. Bass's

(2004) research leads the way for transformational leadership research as they studied such organizations as education, the military, government, and industry.

Transformational leadership theory indicates that transformational leaders both engage the full person in order for subordinates to become leaders. These leaders recognize and develop needs, encourage and develop others to operate at levels above standard expectations (Bass, B.M. & Avolio, 2004). As applied to the current research study, this theory holds that this researcher would expect the variables of cultural intelligence to predict transformational leadership and that transformational leadership would have a negative relationship with burnout. Hofstede (1980) originally studied the concept of cultural competence. Based on his research, Schwartz (1994) developed the theory further. Ang, Van Dyne, Koh, and Ng (2004), and Ang, Van Dyne, and Koh (2006) further developed the cultural intelligence theory. Cultural intelligence (CQ) indicates an individual's ability to function in and manage effectively in diverse settings. These settings could include differences in race, ethnicity, and nationality. As applied to the current study, this theory holds that this researcher would expect that those high in cultural intelligence would be more effective transformational leaders, and also less burned out.

Maslach (1976) developed the theory of burnout. Burnout is a syndrome of emotional exhaustion, depersonalization, and low or reduced personal accomplishment. It indicates one's relationship to others with whom they work closely. Burnout is not a syndrome necessarily associated with working conditions, but more so with those who work closely with and care deeply for others. As applied to the current study, this theory holds that this researcher would expect that those high in cultural intelligence and transformational leadership would have lower levels of burnout. As leaders examine their cultural intelligence and causes of burnout, evidence that these factors affect their ability to be transformational leaders may be present.

Significance of the Study

There is a gap in the literature regarding cultural intelligence, leadership style, and burnout within the population of doctorate of education students. This study adds to educational research as it addresses the current gap as described above within the population of doctorate of education students. Results will inform colleges and universities to focus efforts on training in specific areas that have been shown to protect against burnout. Some programs may see a need to educate and train their students to be more culturally intelligent, therefore, allowing them to be more effective transformational leaders while enrolled, and also as they enter the marketplace (Amarjit, et al., 2006; Anastasios & Panayiotis, 2010).

Research Questions

Research Question 1. What cultural intelligence factor(s) best predict(s) transformational leadership style in doctorate of education students?

Research question 2. What is the best predictor (factors of cultural intelligence and/or transformational leadership) of level of burnout in doctorate of education students?

Research Hypotheses and Null hypotheses

H1: The combination of cultural intelligence factors will significantly predict transformational leadership style in doctorate of education students.

H01: There is no statistically significant relationship between the combination of cultural intelligence factors and transformational leadership style in doctorate of education students.

H1.1: Metacognitive CQ will significantly predict transformational leadership in doctorate of education students.

H01.1: Metacognitive CQ will not significantly predict transformational leadership in doctorate of education students.

H1.2: Cognitive CQ will significantly predict transformational leadership in doctorate of education students.

H01.2: Cognitive CQ will not significantly predict transformational leadership in doctorate of education students.

H1.3: Motivational CQ will significantly predict transformational leadership in doctorate of education students.

H01.3: Motivational CQ will not significantly predict transformational leadership in doctorate of education students.

H1.4: Behavioral CQ will significantly predict transformational leadership in doctorate of education students.

H01.4: Behavioral CQ will not significantly predict transformational leadership in doctorate of education students.

H2: The combination of cultural intelligence factors and transformational leadership style will significantly predict level of burnout in doctorate of education students.

H02: There is no statistically significant relationship between cultural intelligence, leadership styles, and burnout in doctorate of education students.

H2.1: Metacognitive CQ will significantly predict burnout in doctorate of education students.

H02.1: Metacognitive CQ will not significantly predict burnout in doctorate of education students.

H2.2: Cognitive CQ will significantly predict burnout in doctorate of education students.

H02.2: Cognitive CQ will not significantly predict burnout in doctorate of education students.

H2.3: Motivational CQ will significantly predict burnout in doctorate of education students.

H02.3: Motivational CQ will not significantly predict burnout in doctorate of education students.

H2.4: Behavioral CQ will significantly predict burnout in doctorate of education students.

H02.4: Behavioral CQ will not significantly predict burnout in doctorate of education students.

H2.5: Idealized influence (attributed) will significantly predict burnout in doctorate of education students.

H02.5: Idealized influence (attributed) will not significantly predict burnout in doctorate of education students.

H2.6: Idealized influence (behavior) will significantly predict burnout in doctorate of education students.

H02.6: Idealized influence (behavior) will not significantly predict burnout in doctorate of education students.

H2.7: Inspirational Motivation will significantly predict burnout in doctorate of education students.

H02.7: Inspirational Motivation will not significantly predict burnout in doctorate of education students.

H2.8: Intellectual Stimulation will significantly predict burnout in doctorate of education students.

H02.8: Intellectual Stimulation will not significantly predict burnout in doctorate of education students.

H2.9: Individualized Consideration will significantly predict burnout in doctorate of education students.

H02.9: Individualized Consideration will not significantly predict burnout in doctorate of education students.

Identification of Variables

For the first research question there are four predictor variables (each branch of CQ- metacognitive, cognitive, motivational, and behavioral) and one criterion variable (transformational leadership). The Cultural Intelligence Scale measures the predictor variable in this study, cultural intelligence (Ang, et al., 2006; Ang, et al., 2004). The criterion variable is effective leadership style or more specifically, transformational leadership, as measured by the Multifactor Leadership Questionnaire (MLQ) (Bass, B. M. & Avolio, 2004; Bass, B. M. & Bass, R., 2008). The MLQ measures transactional, transformational, and passive/laissez-faire leadership styles (Avolio & Bass, B. M. 2004). Transformational leadership has subscales of idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individual consideration. Transactional leadership includes contingent rewards that for satisfactory performance, management by exception (active) which is where the leader notices the mistakes and failures of the followers, and management by exception (passive) where the leader is reactive and not proactive. In other words, the leader waits for problems to escalate before intervening. Laissez-faire leadership is the lack or absence

of involvement, which really equals no leadership at all (Bass, B. M. & Avolio, 2004; Eagly, Johannesen-Schmidt, & van Engen, 2003). In their book, *Improving Organizational Effectiveness Through Transformational Leadership*, B. M. Bass and Avolio (1994) provided this description of transformational leadership:

Leaders stimulate interest among colleagues and followers to view their work from new perspectives; generate awareness of the mission and vision of the team and organization; develop colleagues and followers to higher levels of ability and potential, and motivate colleagues and followers to look beyond their own interests toward those that will benefit the group. (p. 2)

Transformational leaders focus on the overall organization and those within the organization. Their ability to convince followers to “buy in” is their strength. These leaders are visionary and see the end before the beginning. They have charisma and the ability to see potential in everyone.

Transformational leadership has five subscales. They include idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individualized consideration. Idealized influence (attributed) refers to the charisma of the leader, whether the leader is viewed as confident and/or powerful, and whether the leader is viewed as ethical (Antonakis, Avolio, & Sivasubramaniam, 2003). Idealized influence (behavior) is seen in charismatic leaders who are values centered, mission driven, and high in morals (Antonakis, et al., 2003). Inspirational motivation is expressed in leaders who are visionary and focused on the optimism of the future. Intellectual stimulation holds to the concept that the leader provides support (stimulation) for the followers and therefore enables followers to think critically and

problem solve. Leaders high in individualized consideration are interested in the follower's satisfaction, and pay a great amount of attention to the follower.

Cultural intelligence (CQ) is “an individual's capability to function and manage effectively in culturally diverse settings, [CQ] is a multidimensional construct targeted at situations involving cross-cultural interactions arising from differences in race, ethnicity, and nationality” (Ang et al., 2007, p. 336). Cultural intelligence (CQ) is known to increase an individual's ability to connect with others outside his own culture (Ang, et al., 2007; Earley & Ang, 2003).

Metacognitive CQ is cultural awareness during cross-cultural interactions. “Metacognitive CQ is an individual's level of conscious cultural awareness during intercultural interactions” (Rockstuhl, Seiler, Ang, Van Dyne, & Annen, 2011, p. 827). Cognitive CQ is a general knowledge about culture. Leaders with cognitive CQ have knowledge about norms, mores, and practices of different cultures through their education and experience with other cultures (Rockstuhl, et al., 2011). “Motivational CQ is the capability to direct attention and energy toward learning about and operation in culturally diverse situations”(Rockstuhl, et al., 2011, p.827). Behavioral CQ focuses on what people do and not what they think or feel (Ang, et al., 2004). Leaders are concerned with their non-verbal cues, and “exhibit situationally appropriate behaviors” (Ang, et al., 2007, p. 338). The Cultural Intelligence Scale measured cultural intelligence (CQ) (Ang, et al., 2004; Van Dyne, Ang, & Koh, 2008).

For the second research question, the criterion variable is burnout, and the predictor variables are factors of cultural intelligence and transformational leadership. The cultural intelligence factors as discussed previously were metacognitive, cognitive, motivational, and behavioral cultural intelligence. The Multifactor Leadership Questionnaire (MLQ) measured

leadership and it measures transactional, transformational, and laissez-faire leadership styles. Burnout, a syndrome of emotional exhaustion, depersonalization, and low or reduced personal accomplishment (Maslach, Jackson, & Leiter, 1996) was measured using the Maslach Burnout Inventory (MBI).

Maslach, Jackson, and Leiter (1996) explained burnout in the following manner:

“*Burnout* is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with people in some capacity” (p.

4). Emotional exhaustion is an individual’s response to stress which can lead to depersonalization, a negative reaction to others with whom one works, and finally low or reduced personal accomplishment or inefficacy or viewing one’s accomplishments negatively (Maslach, 2003a).

CHAPTER TWO: REVIEW OF THE LITERATURE

Globalization is a process of integration and interaction of people and companies all over the world (Friedman, 2005). Globalization has affected every area of life including education (Kulkarni, 2006; Nayyar, 2008; Vaezi & Ghorouneh, 2010), and educational leadership effectiveness, cultural sensitivity, and how well leaders deal with burnout (Alon & Higgins, 2005; Farber, 2000; Idris, Dollard, & Winefield, 2011). This research study focuses on the relationship among three constructs: (a) cultural intelligence, (b) transformational leadership style, and (c) burnout. The population under study was doctorate of education students. The purpose of this correlation study was to first determine what cultural intelligence (CQ) factor(s) best predict transformational leadership. Research has established that cultural intelligence predicts transformational leadership within a variety of populations and that those high in cultural intelligence are more transformational leaders than those with lower levels of cultural intelligence (Alon & Higgins, 2005; Ang, Van Dyne, & Koh, 2006; Earley & Ang, 2003; Ng & Earley, 2006). In business literature, the model between transformational leadership and cultural intelligence (CQ) has been well established (Den Hartog, House, Hanges, Ruiz-Quintanilla, & Dorfman, 1999; Deng, & Gibson, 2008). However, this relationship needs to be further researched with doctorate of education students. Since transformational leadership and cultural intelligence have been known to lead to more effective emotional and social functioning, both may be protective factors against burnout in a globalized environment.

When examining the variables of cultural intelligence, transformational leadership, and burnout independently a significant amount of studies have focused on workers or leaders in existing leadership positions (Bono, & Judge, 2004; Muresnsky, 2000). This study examined this

model within the population of doctorate of education students. This study also examined if the factors of cultural intelligence and transformational leadership predict level of burnout.

The population studied was doctorate of education students who currently hold or will one day hold important leadership positions in primary, secondary, and higher education. This population is significant because understanding cultural intelligence, transformational leadership style, and burnout could potentially enable leaders to be more effective.

This chapter focuses on globalization and globalization as a cause for burnout in a global society. Globalization is defined and discussed and its influence on educational leaders presented in order to establish the importance of the presented research from a practical viewpoint. Specifically, the significance of the phenomena of globalization on doctorate of education students could have an impact on their success as transformational leaders and their levels of burnout.

The theoretical constructs of cultural intelligence (CQ), transformational leadership (TL), burnout (BO), and the research that establishes the relationship serve as the conceptual framework for this study. Cultural intelligence, transformational leadership, and burnout are each defined. A detailed account of the Burnout Syndrome including its three subscales of emotional exhaustion, depersonalization, and personal accomplishment along with the effects and predictors of burnout are included in this chapter. Also included is a detailed explanation of Transformational Leadership including its subscales of idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individualized consideration. A detailed discussion of Cultural Intelligence (CQ) and where it began with Hofstede (1980) and Schwartz (1994) is also included in this chapter along with cultural intelligence's factors of metacognitive, cognitive, motivational, and behavioral CQ. The chapter

ends with a discussion on educational leaders and CQ, burnout and its relationship to CQ and transformational leadership, and a brief summary of research that establishes the gap in the literature that the current study will fill.

Globalization

Globalization has had a major impact on the world (Friedman, 2005; Kulkarni, 2006; Nayyar, 2008; Vaezi & Ghorouneh, 2010). Kulkarni (2006) posits “about 45% of populations over 10 years of age belong to the global workforce” (p. 3). In the 21st century, individuals from other countries come to the United States to conduct business regularly. Through innovation and technology, business is executed with other cultures each hour of the day. According to Thomas and Inkson (2003), there are seven billion people from different cultures in the world. Because of globalization, leaders may feel that they live in a “global village” where other cultures are accessible with a click of a button (p. 5).

One of the most important factors in the globalization of higher education is that the technological revolution has set aside geographical boundaries (Nayyar, 2008). Satellite, distance, and even virtual campuses have allowed institutions to expand into regional, national, and international markets (Loomis & Rodriguez, 2009). With the increase of mobility and distance education, it is projected that higher education students will grow from 97 million in 2000 to 263 million worldwide in 2025; there are three million students today who are enrolled in full-time online programs (Aslanian & Clinefelter, 2012). Also, it is predicted that by the year 2019, 50% of high school classes will be taught online (Horn & Staker, 2011). With this increased enrollment and the ability to teach all over the globe via online learning, is a concomitant increase in diversity. Inherent in the expansion of higher education opportunities across the globe is the concern for serving diverse student bodies as well as providing quality

education worldwide. Having the knowledge, skills, and ability to function effectively in a global society is thus critical to effective leadership at the university and K-12 levels.

Globalization: A predictor of burnout. Thirty to fifty percent of the workers who belong to a global workforce are overworked and exposed to competition, psychological stressors, and burnout (Kulkarni, 2006). In the United States alone, 75% of workers have high pressure and high stress jobs (Kulkarni, 2006). As globalization and the competitiveness of the global market increase, the need to understand burnout and factors that influence it becomes even greater (Earley, Ang, & Tan, 2006). Because of globalization, leaders have experienced high fatigue and more burnout, but have also continued to work at a fast pace to keep up in a global market/society (Kokkinos, 2011; Kulkarni, 2006; Marchal & Kegelis, 2003). Early research on burnout focused on work related factors (Maslach, 1976; Maslach, 2003a; Maslach, 2003b). Recent research is being focused on external factors such as environment and globalization (Kokkinos, 2011; Kulkarni, 2006; Marchal & Kegelis, 2003). In some countries burnout is seen as a medical diagnosis and in others it is seen as a non-medical or social issue. In the United States, burnout is seen as a social issue because those in positions that interact frequently with others, like educators, are more likely to experience higher levels of burnout (Maslach, 2003a).

According to the work of Schaufeli, Leiter, and Maslach (2009), one of the root causes of burnout was cultural development, e.g. globalization. In terms of the social conceptualization of burnout, the more one interacts with others who are diverse, the more likely they are to become burned out. Maslach (1976; 2003a; 2003b), Maslach and Jackson (1981), and Maslach, Jackson, and Leiter's (1996) work has shown that burnout may be considered a type of job stress, but it has its roots in the social interaction between people when one helps the other. This was significant as this researcher's study sought to determine the relationship between cultural

intelligence, leadership, and burnout among doctorate of education students. The role of an educational leader (i.e. a teacher or administrator) is to foster the development of another whether he is a student or subordinate (Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004). Teachers, administrators, and students interact on a daily basis with one another, and with diverse individuals because of increased globalization and technology (Stromquist, 2002).

Further, liberalization, globalization, and privatization result in changing job demands, the need for new skill sets, added pressures, and increasing stress (Kulkarni, 2006) and increased competition. This competition can be in the form of increases in student population and diversity, job demands, and goals. Ensuring compatible quality education across borders so that degrees will be internationally accepted “will lead to an expanded role for distance education” (Altbach & Knight, 2007, p. 303); however an increase in institutional competition can lead to increased burnout or stress for leaders as well as a need for effective leadership skills and cultural competence. Because of globalization, leaders and professionals are more concerned with understanding burnout more fully so that measures may be put in place to effectively manage burnout (Bullock, 2011). “External factors are regarded as influences on the working environment[...] global forces would have an impact on burnout” (Idris, et al., 2011, p. 447).

The Burnout Syndrome. *Burnout* as defined by Maslach, et al. (1996) “is a syndrome of emotional exhaustion, depersonalization, and low or reduced personal accomplishment that can occur among individuals who work with people in some capacity” (p. 4). Emotional exhaustion is an emotional stress response. Leaders feel overwhelmed and negative emotions set in. Depersonalization is the prevalence of negative behavior among professionals towards others (clients or customers). Low personal achievement occurs when the goals and vision of the leader do not match the results of their experience as a leader (Maslach, Jackson, & Leiter, 1996).

Emotional Exhaustion. Emotional exhaustion is considered “the individual stress response” (Maslach, 2003a, p. 1). This is an emotional overload; a response to a person getting emotionally involved or attached as a helper with the person they are helping. The helper becomes overwhelmed sometimes from a response to the other individual’s situation. There is a depletion of energy and emotion as well as a feeling of being drained and tired (Maslach, 2003a). When this emotion sets in, people feel they can no longer give of themselves to others. They feel a lack of motivation for the job or for the people they need to help, mentor, teach, direct, or care for.

Emotional exhaustion then leads to detachment. The helper becomes detached from those she/he is helping. Some feel (medical doctors are an example) that detachment is a solution to the problem of emotional exhaustion (Maslach, 2003a). However, detachment places one in the position of dealing with others without becoming emotionally attached in their care (Maslach, 2003a). With long periods of detachment “comes an attitude of cold indifference to others’ needs and a callous disregard for their feelings” (Maslach, 2003a, p. 2).

Depersonalization. A related term used in the literature for depersonalization is cynicism. *Cynicism* is “the negative reaction to others and the job” (Maslach, 2003a, p. 1). Emotional exhaustion leads to detachment, which leads to depersonalization. This is a dehumanized response that leads to “viewing other people through rust-colored glasses-developing a poor opinion of them, expecting the worst from them, and even actively disliking them” (Maslach, 2003a, p. 2). In the interviews Maslach (2003a) conducted with social workers, nurses, teachers, religious leaders (ministers), police officers, doctors, and even mothers individuals expressed that they began to despise others, care less, have negative attitudes, not care at all, lose their tempers, and dehumanize clients by comparing them to animals. In some

cases, this led these workers to despise all people groups who were like the ones with whom they were working.

Low or Reduced Personal Accomplishment. A related term used in the literature for low or reduced personal accomplishment is inefficacy. Inefficacy is viewing one's own accomplishments negatively (Maslach, 2003a). When people experience negative feelings toward themselves, they often begin to view themselves in an unhealthy manner. They look at themselves as cold, mean, and uncaring. This leads to low or reduced personal accomplishment, and in turn, the belief that they are inadequate, not equipped for the job, and a failure. This may lead to these leaders changing jobs (professions) and even moving into fields where they do not have to have personal contact with people in a stressful environment (Maslach, 2003a).

Causes of Burnout. Educators have multiple job demands placed on them. These demands create a high level of stress that could lead to emotional exhaustion, depersonalization, and reduced personal accomplishment (Hobfoll & Freedy, 1993; Maslach et al., 1996). Burnout can stem from environmental factors; however, internal factors are influential in causing and also preventing burnout (Amarjit, Flaschner, & Shachar, 2006; Anastasios & Panayiotis, 2010; Burke & Mikkelsen, 2006; Farahbakhsh, 2009; Gentry, Katz, & McFeeters, 2009). In doctorate of education students these internal factors may be leadership style and cultural awareness, sensitivity, or intelligence. Research suggested that on-the- job resources buffer the impact of burnout. For example, Bakker, Demerouti, and Euwema (2005) hypothesized that high job demands and low resources produce high burnout (exhaustion, cynicism, and reduced professional efficacy). In actuality, exhaustion and cynicism were more of a factor than professional efficacy.

Maslach and Leiter (1997) identified six influences of burnout. They were: 1) workload; 2) lack of workers' control over day to day operations; 3) lack of rewards for performance and need to improve performance; 4) the undermining of relationships; 5) feelings of being disrespected, treated unfairly, and leaders not being open; and 6) feelings associated with an individual's core values being in conflict with the leadership's decision-making. These would all be considered external sources.

Burnout is caused by both external or extrinsic and internal or intrinsic sources. External sources have been seen in globalization, technology, work environment, work culture, and other things (Koustelios & Tsigilis, 2005; Raiger, 2005).

Internal sources of burnout may be leadership style and/or cultural intelligence because leadership and cultural intelligence are developed from within an individual and not from without. These factors - leadership and cultural knowledge and skill – have been shown to reduce or prevent burnout in other populations. This research focused on doctorate of education students who are in leadership positions or will one day choose to be in leadership positions. Effective leadership for this study is seen as transformational as measured by the Multifactor Leadership Questionnaire. Cultural competence is conceptualized by cultural intelligence as measured by the Cultural Intelligence Scale (CQS). This research study ultimately focused on the internal causes of burnout and sought to determine relationships.

Burnout and its relationship to Leadership and Cultural Competence

Burnout and Leadership

Research has been done in the areas of internal (intrinsic) and external (extrinsic) factors (Koustelios & Tsigilis, 2005; Tsigilis, 2005) that protect leaders against burnout. External sources have been seen in globalization and technology. Internal or intrinsic factors such as job

satisfaction, leadership style, and cultural competence have also been shown to influence burnout levels (Koustelios & Tsigilis, 2005; Raiger, 2005).

Transactional and transformational leaders are proactive and capable of resolving problems, hence reducing stress levels, and burnout (Den Hartog, Van Muijen, & Koopman, 1997), but transformational leaders are more effective than transactional leaders according to research (Bass, B. M. & Bass, R., 2008; Emery & Barker, 2007). In a study of hospitality managers in Cyprus, researchers found that transformational leadership was negatively associated with emotional exhaustion and depersonalization. Managers with passive avoidance leadership styles exhibited higher burnout levels (Anastasios & Panayiotis, 2010). Therefore, transformational leaders in areas like education may be less prone to burnout and more effective in their roles as leaders. Seltzer, Numerof, and B. M. Bass (1989) found in a study of part-time MBA students that burnout was reduced in leaders and subordinates when transformational leadership was applied. In a replication of their study, Stordeur, D'hoore, and Vandenberghe (2001) found in their study of registered nurses from a Belgian University hospital that work stressors and role ambiguity increased emotional exhaustion, and a head nurse who continuously monitored subordinates' performance and constantly detected mistakes increased emotional exhaustion among subordinates. Results confirm that lower levels of burnout are associated with charismatic or transformational leadership, and these results also coincide with the findings of Seltzer, et al. in 1989. These findings can perhaps be applied to educational leaders who are also in high stress working situations. No research implicitly states that cultural intelligence (CQ) predicts burnout, but global leaders and top executives must understand these phenomena in order to be effective global strategists (Mannor, 2008).

Burnout and Cultural Intelligence

There is significant research when it comes to emotional intelligence and burnout (Chan, 2006; Gerits, Derksen, Verbruggen, & Taylor, 2004; Mendes, 2002), but research is lacking in the areas of cultural intelligence and burnout. However, in the field of counseling, research has been established in relationship to burnout and cultural intelligence. Not only have researchers sought to explore these areas based on the diversity and ethnicity of the client (Cashwell, C. S., Shcherbakova, & Cashwell, T. H., 2003; Chandras, Eddy, & Spaulding, 2000; Kim & Atkinson, 2002), but also on the diversity and ethnicity of the counselor (Kim & Atkinson, 2002; Patrick, 2006a; Patrick, 2006b; Wee & Myers, 2002). Counselors handle stress levels and burnout based on their own views, which are based on their culture, ethnicity, and diversity. The need in counseling to understand burnout and cultural intelligence is great because of the close interaction between counselors and clients. This could very well hold true in education where close relationships are formed between administrators and staff, teachers and students, and administrators and students.

Because of globalization and the increase in diversity, the study of cultural competence and burnout is important. Its importance is great for educational leaders, and research has shown that even in the education of medical students, there is a need for greater competence and diversity training for the purpose of decreasing burnout (Mavani, 2007).

In education, connecting with students from various cultural backgrounds can be a challenge. An educational leader must determine if assimilating a student into a new culture right away is worthwhile and at what pace this should take place. If educational leaders are to make these types of decisions, they must be culturally sensitive, intelligent, and avoid burnout (Tatar, 2012). Diversity-related burnout may have some effect on the abilities of the educational

leader. In a study of Israeli teachers, Tatar and Horenczyk (2003) researched whether diversity-related burnout was the same as general burnout. In their findings they realized that several factors including the teacher's background, organizational culture, and the school's cultural heterogeneity all predicted diversity-related burnout.

Transformational Leadership

Instructional (Bossert, Dwyer, Rowan, & Lee, 1982; Edmonds, 1979; Hallinger, 2005) and transformational leadership theories (Bass, B.M. & Avolio, 1994; Burns, 1978; Leithwood & Jantzi, 2005) have dominated empirical research on educational leadership. Research has shown that instructional leadership is tied to student achievement (Hallinger, 2003, 2005; Robinson, Lloyd, & Rowe, 2008; Valentine & Prater, 2011), but the transformational leadership of the school principal and her ability to cast vision and provide support has a greater relationship to achievement and overall school performance (Marks & Printy, 2003; Valentine & Prater, 2011). This current research study was not just fascinated with viewing the effective transformational leader as one who influenced student achievement and outcomes, but as one who influenced the entire organization (Leithwood & Jantzi, 2000; Marks & Printy, 2003).

Leadership has been viewed in many ways such as authoritarian, laissez-faire, democratic, transactional, and transformational (Avolio, Sisk, Jung, & Benson, 2003; Bass, B. M., 1990; Bennis, 2007). Leadership has also been described in terms of traits, skills or abilities, and behaviors (Conger & Kanungo, 1994; Eagly, Karau, & Makhijani, 1995; Judge, Piccolo, & Ilies, 2004). Theories of leadership include transformational, transactional, biological model, sociocultural model, leader behavior typologies and theories, initiating structure-consideration, trait activation theory, leadership categorization theory, similarity attraction paradigm and others (Derue, Nahrgang, Wellman, & Humphrey, 2011).

Effective leadership has been debated, but research has consistently shown that effective leaders are transformational leaders (Avolio & Bass, B. M., 2004; Avolio, Bass, B. M., & Jung, 1999; Bass, B. M. & Avolio, 1994; Dum dum, Lowe, & Avolio, 2002; Fuller, Patterson, Hester, & Stringer, 1996; Lowe, Kroeck, & Sivasubramaniam, 1996). Transformational leaders motivate others “to go the extra mile” (Leong & Fischer, 2011, p. 164), set higher and more challenging goals, act as role models, and are trustworthy and ethical. Also, transformational leaders’ “followers tend to be more satisfied and more committed since leaders empower them and pay attention to their individual needs” (Leong & Fischer, 2011, p. 164).

James McGregor Burns first coined the term *transformational leadership* in 1978. He described this leader as the ideal relationship between leaders and subordinates. Burns posited that leaders motivate followers to act and achieve certain goals. This relationship is not simply the leader giving power to the follower, but one where the leader recognizes the desires, values, and circumstances of the follower and appeals to those. Burns (1978) also felt that moral leadership occurs when both the leader’s and followers’ levels of morality are raised through their human interactions with each other.

B. M. Bass (1985) defined *transformational leadership* as the ability of a leader to arouse subordinates’ awareness and interest in the organization, to enhance the confidence of subordinates, and to motivate them to consider higher levels of achievement and growth. However, an even greater part of the leadership ability of individuals may be how they understand and interact with subordinates in order to lead, manage, and motivate. Research on leadership has developed over the years and has been used to study effective leaders in education (Basham, 2012; Fuller, et al., 1996; Huang & Liao, 2011; Jones & Rudd, 2008; Julsuwan,

Boonchom, & Somjet, 2011; Kezar & Eckel, 2008; Kirby, Paradise, & King, 1992; Leithwood & Poplin, 1992; Moolenaar, Daly, & Slegers, 2010).

Transformational leadership is the process of influencing others, and transformational leaders are aware of others' needs, are proactive, highly ethical and moral, and capable of resolving problems (Bass, B. M. & Avolio, 2004; Den Hartog, et al., 1997). B. M. Bass and R. Bass (2008) also found that leadership is influence, and leaders are change agents. Leaders have the ability to interact with a group of individuals, cause them to be more effective, and achieve greater goals. Effective transformational leadership includes the constructs of idealized influence (attributed), idealized influence (behavior), inspirational motivation, and intellectual stimulation, and individualized consideration. Idealized influence (attributed) refers to how the leader is perceived by others. Idealized influence (behavior) refers to how the leader behaves and the actions she displays with others. Inspirational motivation refers to the leader's focus on the organization, the leader's vision, and goals for the future. Intellectual stimulation refers to the leader's use of his/her intellectual capacity to stimulate or motivate others (Bass, B. M. & Avolio, 1994; Huang & Liao, 2011). Individualized consideration refers to a leader's ability to interact with subordinates and have each subordinate's interests at heart.

Idealized Influence (attributed). Idealized influence (attributed) “refers to the socialized charisma of the leader, whether the leader is perceived as being confident and powerful, and whether the leader is viewed as focusing on higher-order ideals and ethics” (Antonakis, Avolio, & Sivasubramaniam, 2003, p. 264). Idealized influence (attributed and behavior) reflects the idea that the leader provides vision and the mission for the organization, and makes them easily understandable. The leader also ignites her followers by presenting a positive outlook on the future, and in turn earns their respect and trust. Followers idealize and emulate the behaviors of

their leader whom they admire and trust, and are motivated by the achievement of a common goal.

Idealized Influence (behavior). Idealized influence (behavior) refers to the behaviors of charismatic leaders who are value centered, mission driven, and those who do not bend from their beliefs and morals (Antonakis, et al., 2003). Transformational leaders in this category care more about others' needs than their own. These types of leaders are consistent and open with followers and treat them as they want to be treated. Leaders demonstrate high character, morality, and ethics in their behavior. Leaders do not use their authority or power in an abusive or negative manner.

Inspirational Motivation. Inspirational motivational leaders focus on the future, and are optimistic in their approach. They often have great vision, communicate well with their followers, and set high goals within the organization. They always are positive and express to their followers that the vision of the organization can and will be achieved (Antonakis, et al., 2003).

Huang and Liao (2011) posited “transformational leaders behave in ways that motivate and inspire those around them by providing meaning and challenge to their followers’ work” (p. 4). These leaders share vision clearly and effectively. They articulate values and beliefs, and not only set high standards, but also share them clearly and effectively with followers (Bass, B. M. & Avolio, 1994; Huang & Liao, 2011).

Intellectual Stimulation. Intellectual stimulation occurs when the leader takes an approach to help followers think critically and creatively when solving problems. Leaders use their intellect and appeal to followers’ intellect in order to gain logical analyses of issues to address and bring to the table (Antonakis, et al., 2003). Transformational leaders stimulate their

followers by suggesting new ways of thinking and doing. They do this by questioning and reframing problems (Huang & Liao, 2011). These leaders use creativity and innovation to find new solutions to problems. New ideas and new ways of thinking are embraced and encouraged by these leaders. Followers are asked to participate in activities that stimulate new ideas and new ways of thinking (Bass, B. M. & Avolio, 1994; Huang & Liao, 2011). Intellectual stimulation holds to the concept that the leader provides support so the followers become more innovative and creative. Leaders do this by encouraging them to break away from their old habits and ways of thinking in order to question their beliefs, expectations, and mores.

Individualized Consideration. Individualized consideration refers to leader behavior that is interested in follower satisfaction so much so that the leader supports the follower by paying attention to each individual follower's needs in order to develop the follower fully (Antonakis, et al., 2003). They act like a coach or mentor to each individual and accept individual differences in followers. These leaders develop support mechanisms by which followers can learn and improve in all areas personally and professionally. These leaders have open two-way communication with followers and encourage this to foster healthy relationships (Bass, B. M. & Avolio, 1994; Huang & Liao, 2011). Effective leaders address followers' needs individually, collectively, and equitably (Deng & Gibson, 2009).

According to Kouzes and Posner (2007), leaders are seen as trustworthy, visionary, influential, and motivational, among other attributes. However, one cannot overlook the need for a leader to be culturally intelligent when dealing with her subordinates or peers. Deng and Gibson (2009) found in their study of 32 Western expatriate managers and 19 local Chinese managers working in Australian owned businesses in Shanghai and Beijing that there is a core of group competencies in cross-cultural leadership that utilize transformational leadership,

emotional intelligence, and cultural Intelligence. “Because the core leadership effectiveness lies in the influence process between the leader and the followers, the emotional aspect of human nature must be understood” (Deng & Gibson, 2009, 348). Cultural intelligence (CQ) plays a significant role in effective leadership (Alon & Higgins, 2005; Ang & Inkpen, 2008; Deng & Gibson, 2009) as well as potentially preventing burnout (Anastasios & Panayiotis, 2010; Den Hartog, et al., 1997; Stordeur, et al., 2001; Seltzer, et al., 1989) in a global society.

Cultural Intelligence

Hofstede (1980) and Schwartz (1994) paved the way for the cultural intelligence theory that researchers employ today. Hofstede (1980) studied IBM employees in the late 1960s and early 1970s. He identified four dimensions in these employees: (a) power distance, (b) uncertainty avoidance, (c) individualism-collectivism, and (d) masculinity-femininity (Hofstede, 1980).

Hofstede (1980) defined each dimension in the following manner. Power distance was concerned with the notion as to whether or not organizations in society understand or accept that power is distributed unequally. Uncertainty avoidance indicated the extent to which a society feels frightened or threatened by uncertainties. An example of this type of uncertainty was evidenced after September 11, 2001 when the United States established formal policies to offset potential threats. This can occur quite often within organizations in any society. When considering individualism and collectivism, these two words are opposites and therefore, must be defined as such. Individualism is a way of life where individuals care only for themselves and their immediate families; collectivism, its opposite, is characterized by a tight social framework in which individuals identify with a group and feel a sense of loyalty to the group (Hofstede, 1980). The masculine dimension was the dominant value in society, and consists of

“assertiveness, acquisition of money and things, and not caring for others, the quality of life, or people” (Hofstede, 1980, p. 46). He found feminine values characterized by caring and passivity as opposite those of a masculine dimension.

Schwartz (1994) added to the research by proposing a theory of culture, which was studied by administering the original Schwartz Value Survey (Schwartz, 1994). He found three basic dimensions for ordering society. First, should people in society dominate or just fit in (Schwartz, 1994; 1999)? At one end of the spectrum was harmony, which was the ideal of fitting into society nicely without changing it. At the other end was mastery, which was self-assertion and the idea of mastering and/or changing society, based on individual and group desires. Mastery was similar to Hofstede’s (1980) masculinity-femininity concept. A masculine society would be dominant, assertive, and relentlessly seeking money and material goods (Schwartz, 1994). A feminine society would be the exact opposite and would be more concerned with caring for others, quality of life, and putting people first over resources or money. Schwartz (1994) was concerned with responsible behavior in terms of how to encourage, preserve, and take care of society. Equality, interdependence, hierarchy, and egalitarianism are all terms of interest and concern when it comes to this second point Schwartz made regarding the dimensions of culture.

Schwartz (1994) was also concerned about the relationship between groups and individuals. He wanted to understand if individuals should bow to the interests of the group or if they should be able to express themselves freely and without ridicule from the group. Do individuals find meaning in life through their own accomplishments or through a relationship, bond, or connection to a group or groups? This dimension was similar to the individualism-collectivism dimension that Hofstede (1980) found with the IBM employees.

Research has grown since Hofstede's (1980) and Schwartz's (1994) initial efforts with cultural intelligence. Schwartz's (1994) initial efforts only focused on students and teachers. Researchers are now more interested in why some leaders are more effective than others, and not just whether they are effective or not, in cultural situations (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007). Other research has tried to explain cultural intelligence's impact on intercultural interactions (Earley, 2002). These researchers' efforts and questions about cultural intelligence have led to the development of the cultural intelligence four-factor model. Thus, this is the framework for this study.

Four-Factor Model of Cultural Intelligence

Cultural intelligence is “an individual's capability to function and manage effectively in culturally diverse settings. CQ is a multidimensional construct targeted at situations involving cross-cultural interactions arising from differences in race, ethnicity, and nationality” (Ang, et al., 2007, p. 336). Earley and Ang (2003) described CQ as a state-like individual difference. This would be the opposite of a trait-like individual difference. They also identify that “in the broader nomological network of cultural intelligence, personality characteristics are conceptualized as antecedents or causal agents of cultural intelligence” (p. 160). State-like individual differences describe the capability of others to be flexible and malleable when interacting with others from differing cultures.

Cultural intelligence (CQ) also requires an individual to adapt effectively to new cultures (Earley & Ang, 2003). The four-factor model of CQ includes the branches of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ. Metacognitive CQ in a global society is cultural awareness during cross-cultural interactions. This occurs when one reflects on his own awareness, presuppositions, and interactions, and then makes adjustments that are necessary to

facilitate better interactions (Ang & Van Dyne, 2008). Earley and Peterson (2004) suggested that global managers or leaders should be trained in cultural adaptation approaches in the areas of metacognitive cultural intelligence (CQ), motivational CQ, and behavioral CQ. This approach is slightly different from other approaches that focus primarily on skills like the intelligence quotient (IQ) and emotional intelligence (EQ). Cultural intelligence (CQ) focuses on cultural values. Leaders high in metacognitive CQ are aware of others' preferences before, during, and after interacting with them. This ability to understand others' preferences leads the leader to adjust his behavior before, during, and after interactions (Ang, et al., 2007).

Cultural intelligence (CQ) is not linked to understanding one specific culture, but involves the individual's capacity to adjust and adapt to many differing cultural situations (Ang, et al., 2006; Earley & Ang, 2003; Ng & Earley, 2006). Peterson (2004) posited that CQ "is the ability to engage in a set of behaviors that uses skills (i.e., language or interpersonal skills) and qualities (e.g., tolerance for ambiguity, flexibility) that are tuned appropriately to the culture-based values and attitudes of the people with whom one interacts" (p. 89). Effective interaction between people of differing cultures can only occur when individuals recognize cultural cues, obtain cultural knowledge, and understand the cultural implications of their own interactions with others. The four sub categories of cultural intelligence are described below.

Metacognitive Cultural Intelligence. Metacognitive CQ and cognitive CQ are the mental components of intelligence. Metacognitive CQ focuses on the processes used to understand culture. "Metacognitive CQ is an individual's level of conscious cultural awareness during intercultural interactions" (Rockstuhl, Seiler, Ang, Van Dyne, & Annen, 2011, p. 827). Ang, Van Dyne, Koh, & Ng, (2004) posited in their research that mental CQ (metacognitive and cognitive) predicts cultural judgment, decision-making, and task performance. Metacognitive

CQ is one's conscious awareness when interacting with others from differing cultures (Ang, et al., 2006). Highly conscientious people will spend an extraordinary amount of time thinking about cultural diversity and decisions as well as making necessary adjustments.

Cognitive Cultural Intelligence. Cognitive CQ is a general knowledge about culture. Leaders with cognitive CQ possess knowledge of cultural universals, similarities, and differences (Ang, Van Dyne, Koh, & Ng, 2004). A person high in cognitive CQ will be open-minded and understand other cultures' systems, culture itself, economics, and legality. A leader who has cognitive CQ has awareness of norms, mores, and practices of different cultures through education and cultural experiences (Rockstuhl, et al., 2011).

In order for educational leaders to have a high level of cognitive CQ, they must understand norms, values, and practices of other cultures. Leaders high in cognitive CQ understand the differences and similarities of those from other cultures (Ang, et al., 2007). For example, if a businessperson from American were to visit Japan for a business transaction, both parties should educate themselves on the other's cultural values to gain awareness and facilitate productivity (Ang & Van Dyne, 2008).

Motivational Cultural Intelligence. Motivational CQ deals with motivated cognition and motivating individuals to do certain things and act certain ways based on their level of knowledge and energy. "Motivational CQ is the capability to direct attention and energy toward learning about and operating in culturally diverse situations" (Rockstuhl, et al., 2011, p.827). If individuals are highly motivated to learn about other cultures, then they will utilize their energy more effectively. Ang, et al. (2004) posited that motivational CQ predicts general adjustment in intercultural environments. They also found that extraverted individuals, who are outgoing by definition, were more intrinsically motivated.

Motivational CQ for an educational leader is seen as directing their energy and attention toward learning about cultural situations and differences. Motivational CQ is evidenced in meetings when one is excited, enthusiastic, and may even initiate conversations with those from differing cultures. One can immediately tell if there is an effort and energy on the part of another to break cultural barriers and move forward in a global society (Ang & Van Dyne, 2008).

Researchers have agreed that motivational CQ predicts interaction and general adjustment as well as work (Ang et al., 2004; 2007; Templer, Tay, & Chandrasekar, 2006; Ward & Fischer, 2008). Individuals with high motivational CQ tend to have a stronger desire to interact with people from other cultures as well as experience other cultures. They also have a strong sense of self-efficacy when it comes to addressing others from diverse cultural backgrounds (Livermore, 2009). Adaptation to new environments and effective integration in new cultures also fits in well with motivational CQ (Livermore, 2009). Those high in motivational CQ have a greater interest and drive in learning about different cultures (Ang et al., 2004; Livermore, 2009; Van Dyne, Ang, & Koh, 2008).

Behavioral Cultural Intelligence. Behavioral CQ focuses on what people do and not what they think or feel. Behavioral CQ is concerned with whether or not individuals will express appropriate verbal and non-verbal feedback in cultural situations. This requires a person to be flexible in their verbal and non-verbal cues. Ang, et al. (2004) found that behavioral CQ was related to task performance and general adjustment in intercultural environments. Behavioral CQ includes interpersonal and social skills exhibited during cross-cultural encounters (Ang, et al., 2004). “In order for effective interaction to occur, individuals must recognize cultural cues, obtain cultural knowledge, understand the cultural implications of their interactions and behave effectively in other cultures” (Crowne, 2009, p. 151).

Behavioral CQ in an educational leader is seen when leaders demonstrate their own, and understand others' verbal and nonverbal cues (Ang & Van Dyne, 2008). Global leaders who are high in behavioral CQ show appropriate behavior when in cross-cultural interactions. These leaders also “exhibit situationally appropriate behaviors” (Ang, et al., 2007, p.338).

Groves and Feyerherm (2011) posited that leader cultural intelligence (CQ) should be understood and is far more important to understand than emotional intelligence or other leadership traits, behaviors, or characteristics. Their research indicated that leaders with high levels of CQ had followers who were more loyal and the leader's CQ was stronger when teams were more culturally diverse. They also found that followers rated their leaders high in performance and this rating far outweighed the effects of a leader's emotional intelligence.

It is understood that leaders in business, education, and other fields must effectively communicate and work in a multicultural environment. Ng, Van Dyne, and Ang (2009a; 2009b) suggested that cultural intelligence is a learning capability that will allow leaders to turn their cultural and international experiences into knowledge and skills that they can implement in their organizations. Their effectiveness as leaders in a global society will be enhanced through the process. Ang, Van Dyne, Koh, Ng, Templer, Tay, and Chandrasekar (2007) in their research of undergraduate students in the United States and Singapore, and 98 international managers found that cognitive CQ and metacognitive CQ were instrumental in decision-making and cultural judgment. Metacognitive CQ and motivational CQ are similar to performance in cultural judgment and decision-making while metacognitive CQ and behavioral CQ predict work related performance (Ang, et al., 2004).

Summary of Research

Research has suggested that effective leadership is transformational (Avolio & Bass, B. M., 2004; Bass, B. M. & Avolio, 1994). This research study explored the relationship between cultural intelligence, transformational leadership, and burnout in doctorate of education students. This literature review has explored the theoretical frameworks of the Avolio and B. M. Bass model of transformational leadership including its five core factors of idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individualized consideration and its relationship to the four factors of Cultural Intelligence: metacognitive cultural intelligence, cognitive cultural intelligence, motivational cultural intelligence, and behavioral cultural intelligence. These two factors were then examined as predictors of the Burnout Syndrome, which includes emotional exhaustion, depersonalization, and low or reduced personal accomplishment.

CHAPTER THREE: METHODOLOGY

Introduction

The purpose of this study was to determine what cultural intelligence factor(s) best predict transformational leadership in doctorate of education students. This study also sought to determine the best predictor of level of burnout, cultural intelligence or transformational leadership style. This chapter was organized in the following manner: research design, participants, setting, instrumentation, procedures, and data analysis.

Research Design

This study used a multivariate correlational research design to answer the following research questions:

Research Question 1: What cultural intelligence factor(s) best predict transformational leadership style in doctorate of education students?

Research question 2: What is the best predictor (factors of cultural intelligence and/or transformational leadership) of level of burnout in doctorate of education students?

Correlational research designs are used when the researcher desires to examine the relationships between variables. Predictive correlational research also allows the researcher to “predict scores on one variable from research participants’ scores on other variables” (Gall, M. D., Gall, J. P., & Borg, 2007, p. 337), as the purpose of this study was to determine the relationship between the criterion and predictor variables of transformational leadership and cultural intelligence. The purpose also included exploring the relationship between burnout, transformational leadership and cultural intelligence (Tabachnick & Fidell, 2007). Specifically, it allowed for insight into the relationship between transformational leadership and the four

factors of cultural intelligence, as well as the relationship between cultural intelligence, transformational leadership, and burnout.

Participants

Participants for this study were from a large private university in Virginia. All criteria were met in acquiring permission to survey the students at the institution (IRB permission, Dean's permission), and emails were sent to the chairs of the departments, but no survey responses were returned to the researcher. The students were doctorate of education students who were enrolled in a blended doctoral program, and working toward terminal degrees in educational leadership and curriculum and instruction. Most students worked in education in some capacity as a teacher and/or administrator. Students participate in 60 hours of course work, which includes online and on-campus classes. Ten of the 60 hours are taken as on-campus intensive courses. An on-campus intensive course consists of five days of classroom instruction on the Virginia campus. A dissertation is required for the completion of the degree of Doctor of Education (Ed.D.).

The population was convenient to the researcher; therefore, convenience sampling was utilized for this study. "Required sample size depends on power, alpha level, number of predictors, and expected effect sizes" (Tabachnick & Fidell, 2007, p. 123). This research was interested in testing individual predictors, therefore; N greater than or equal to $104 + m$ (predictor variables) is the appropriate sample size. For each research question, using multiple regression, a sample size should equal $104 +$ the predictor variables, which would be 108 participants for question one and 113 for question two (Baumgartner & Hensley, 2006; Krejcie & Margan, 1970; Tabachnick & Fidell, 2007). A total population of approximately 2,000 doctoral students were sampled, and a total of 245 participated in the survey. This was a response rate of approximately

12.25%. The low response rate is indicative of the large number of survey participants. However, the required sample size for this type of research was appropriate. Only 191 participants answered the survey questions in their entirety for the cultural intelligence and transformational leadership survey questions. There were 178 respondents who answered all burnout questions in their entirety. An attempt was made to survey a large public university in North Carolina; however, the survey was not accessed by any student from the North Carolina institution.

Setting

The setting for this research study was a university located in Virginia. The Virginia university is a private, non-profit, liberal arts university. Currently, the university has a total enrollment of over 100,000 with over 90,000 online students and 12,600 residential students. The program is fully accredited through the Southern Association of Colleges and Schools (SACS) and the National Council for Accreditation of Teacher Education (NCATE). Approximately 2,000 students are enrolled in the Doctor of Education (Ed.D.) program, and about 400 of these students have obtained doctoral candidacy. The doctoral program consists of three stages: (a) the coursework, (b) the comprehensive evaluation, and (c) the dissertation. Students complete coursework to develop skills and knowledge needed in the discipline to become a scholar. The comprehensive examination is a three-hour written exam that requires the student to draw upon the knowledge and skills he or she has developed during the coursework, and assess the student's readiness to become a doctoral candidate. Successful completion of the exam results in doctoral candidacy and entrance into the dissertation process. The dissertation process is the final academic requirement for the Ed.D. and is designed to evaluate the candidate's capabilities as a scholar in education.

Students were invited to complete an online survey hosted via the MindGarden.com website. Mind Garden compiled all three surveys, which consisted of 87 questions as well as an informed consent statement. All instruments were secured on the online website and password protected. The instruments were left open for students to respond for one month.

Instrumentation

The three instruments used in this research were the Multifactor Leadership Questionnaire (MLQ) (Avolio & Bass, B. M., 2004), the Cultural Intelligence Scale (CQS) (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007; Ward, Fisher, Lam, & Hall, 2009), and the Maslach Burnout Inventory (MBI) (Maslach, 2003b).

Multifactor Leadership Questionnaire. The Multifactor Leadership Questionnaire (MLQ) measures transactional, transformational, and passive/laissez-faire leadership styles. The MLQ measures individual leadership as well as team leadership (MLQT), and organizational development (ODQ). The test has two questionnaire forms: A self-rating form and a rater form where associates rate the leader. For this research, the self-rating 5X short form was utilized. This form consisted of 45 questions. According to Avolio and B. M. Bass (2004),

The MLQ and MLQ report were developed to expand the dimensions of leadership measured by previous leadership surveys and to provide a concise computerized feedback form that can be used for individual, team, and organizational development as well as individual counseling. (p. 3)

The advantages of using the Multifactor Leadership Questionnaire (MLQ) over other measures are: (a) The MLQ assesses leadership behaviors for high (transformational) and low (laissez-faire) leadership; (b) The MLQ has the ability to undertake a 360-degree evaluation. This type of evaluation is one where those who are above, below, and equal to the leader,

evaluate the leader; (c) The MLQ emphasizes leadership development, and (d) the MLQ is easy to use and understand. The MLQ seeks to not only “capture a broad range of leadership behavior, but also differentiate ineffective from effective leaders” (Avolio & Bass, B. M., 2004, p. 4). This researcher chose the MLQ because of its ability to determine effective leadership and its high validity and reliability. Research, as stated in Chapter One, has suggested that effective leaders are transformational leaders. Avolio and B. M. Bass (2004) argue this belief as well.

Reliability/Validity. Cronbach’s alpha measures reliability or internal consistency. This was calculated for the Cultural Intelligence scale (CQS), the Multifactor Leadership Questionnaire (MLQ), and the Maslach Burnout Inventory (MBI). With the Cronbach’s alpha coefficient, “values above .7 are considered acceptable; however, values above .8 are preferable” (Pallant, 2010, p. 100; Tabachnick & Fidell, 2010).

The MLQ measures leadership style in terms of transformational, transactional, and laissez-faire leadership. When repeatedly tested the results are reliable and valid. This has been shown in studies within the military and other civilian organizations. The results stated, “the relationships between transformational leadership and rated and objectively measured performance were stronger and more positive than the transactional styles of leadership and the less active laissez-faire leadership” (Avolio & Bass, B. M., 2004, p. 34).

For a sample of ($N = 1,498$) from 1999, discriminant validity for the MLQ equaled “transformational leadership with developmental/ transactional was .39 (.33), and with passive corrective leadership it was -.73 (-.48) for the initial and replication sample sets, respectively” (Avolio & Bass, B. M., 2004, p. 58). Reliability for the MLQ 5X form from nine samples ($N=2,154$) in 1995 ranged from .74 to .94. The Cronbach alpha coefficient for the current study was .902. Each subscale of transformational leadership was tested for reliability. The following

results were given: The Cronbach's alpha coefficient for idealized influence [attributed] (questions 10, 18, 21, and 25) was .744, idealized influence [behavioral] (questions 6, 14, 23, and 34) was .672, inspirational motivation (questions 9, 13, 26, and 36) was .824, intellectual stimulation (questions 2, 8, 30, and 32) was .643, and individualized consideration (questions 15, 19, 29 and 31) was .731. The MLQ is one of the leaders in measuring leadership styles.

MLQ Scoring. There are 45 questions on the MLQ (5x) short form. The scores are averaged based on the responses of zero for not at all, one for once in a while, two for sometimes, three for fairly often, and four for frequently, if not always. The score is derived from summing up the items and then dividing by the number of items. If an item is left blank, then it will not be added in that particular scale. There are four scales with extra effort having three items, effectiveness having four, and satisfaction having two.

Cultural Intelligence Scale. The CQS was originally designed, developed, and validated by Ang, Van Dyne, Koh, and Ng (2004) and later validated by Van Dyne, Ang, and Koh (2008). The CQS is a 20-item, four-factor model. There are four items for metacognitive CQ (alpha = .76). There are six items for cognitive CQ (alpha = .84). There are five for motivational CQ (alpha = .76). There are five for behavioral CQ (alpha = .83). Sample CQS items include: "I am conscious of the cultural knowledge I apply to cross cultural interactions" for metacognitive CQ; 'I know the legal and economic systems of other cultures' for cognitive CQ; 'I enjoy interacting with people from different cultures' for motivational CQ; and 'I change my verbal behavior when a cross-cultural interaction requires it' for behavioral CQ" (Ang, Van Dyne, Koh, & Ng, 2004, pp. 110-111). Respondents choose their responses based on a seven point strongly agree to strongly disagree scale. The higher the score; the higher the level of CQ (Ward, Wilson, & Fischer, 2011).

CQS Validity/ Reliability. The CQS has been cross validated through various samples, countries (Singapore and U.S.), and time (Ang, et al., 2007; Ward, Fisher, Lam, & Hall, 2009). “Cross-validation analyses provide strong support for the reliability and validity of the CQS” (Ang et al., 2007, p. 29). The Cronbach alpha coefficient for the current study was .945.

Each subscale for cultural intelligence was tested for reliability for the present study. The results were as follows: The Cronbach’s alpha coefficient for metacognitive CQ (questions 1-4) was .906, cognitive CQ (questions 5-10) was .931, motivational CQ (questions 11-15) was .887, and behavioral CQ (questions 16-20) was .931

Maslach Burnout Inventory. The Maslach Burnout Inventory (MBI) is recognized as the leading measure of burnout. The MBI has developed over the years, originally used as an inventory for the human services (Human services survey (HSS)), then moving into the area of education with the educators survey (ES), and finally a newer version was created that includes a general survey (GS). The burnout subscales include emotional exhaustion, depersonalization, and low or reduced personal accomplishment.

There is a difference between each of the surveys that measure burnout. The human services survey (HSS) is for the person or leader who works continuously with people who have constant needs or problems. Because of its nature, this close working relationship can cause the leader to experience stress and fatigue that could lead to burnout (Maslach, Jackson, & Leiter, 1996). The MBI-ES is geared more toward teacher burnout than administrator burnout, but it will be utilized in this study. The following sentence was added to the survey sent to participants: ‘When answering the burnout questions, if you are not a teacher or administrator or an individual who works closely with students, please answer the questions based on your dealings with your colleagues.’ Schaufeli, Leiter, and Maslach (2009) added, “while the MBI-

ES is not designed as a clinical-diagnostic tool to label individuals as burned out, it may contribute to an educator's self-assessment" (p. 29). This in turn could be beneficial to administrators in determining signs of burnout for their teachers, and potentially for themselves. The MBI-GS or general survey measures other occupational groups, but not those that have direct contact with their customers, only casual contact with people. In essence it "defines burnout as a crisis in one's relationship *to* work, not necessarily as a crisis in one's relationships *with* people *at* work" (Maslach, et al., 1996, p. 20). This measure would not be appropriate for this research study because not only do culturally intelligent leaders recognize and read others well; transformational leaders are only transformational if they have a transforming effect on those under their care and supervision (Bass, B. M., 1985).

The Maslach Burnout Inventory Educators Survey was utilized for this research and it is a self-administered survey that takes between 10 and 15 minutes. Respondents are presented with 22 statements of job-related feelings and asked how often they feel this way on a scale of zero to six with zero being never and six representing every day feelings.

Reliability/Validity. Over time, there has been a high consistency with the MBI in each subscale. "Internal consistency for the MBI was estimated by Cronbach's coefficient alpha ($N = 1,316$). The reliability coefficients for the subscales were as follows: .9 for Emotional Exhaustion, .79 for Depersonalization, and .71 for Personal Accomplishment" (Maslach, et al., 1996, p.12). For a different sample of ($N = 53$) graduate students and health care administrators, "the test-retest reliability coefficients for the subscales were the following: .82 for Emotional Exhaustion, .60 for Depersonalization, and .80 for Personal Accomplishment [. . .] All are significant beyond the .001" (Maslach, et al., 1996, p. 12). The Cronbach alpha coefficient for the current study was .763.

Convergent validity was tested in several ways: (a) scores were correlated with behaviors as seen by someone close to the participant like a spouse; (b) with specific job characteristics related to burnout; and (c) with outcomes related to burnout (Maslach, 2003b; Maslach, et al., 1996). Discriminant validity was seen in the MBI based on other measures, which could be considered burnout. For instance, many detractors believe burnout could be caused from job dissatisfaction. This was not seen as likely when job satisfaction from a sample of ($N=91$) “had a negative correlation with both Emotional Exhaustion ($r = -.23, p < .05$) and Depersonalization ($r = -.22, p < .02$), as well as a slightly positive correlation with Personal Accomplishment ($r = .17, p < .06$)” (Maslach, et al., 1996, p. 16).

MBI Scoring. Respondents decide how often they feel the way they do based on the scale of: zero equals never, one equals a few times a year or less, two equals once a month or less, three equals a few times a month, four equals once a week, five equals a few times a week, and six equals every day. The scores are then taken and added together and divided by the three categories to get a composite score for burnout. For example, item numbers one, two, three, six, eight, 13, 14, 16, and 20 represent emotional exhaustion. These would be taken and summed to determine a composite score for emotional exhaustion. A score of 27 or higher would mean that individual has high emotional exhaustion. A score of 17-27 is moderate, and zero to 16 is low.

Procedures

The first step for this research study was to gain Institutional Review Board and administration approvals. Once permission was granted, participation from students enrolled in the doctoral programs was elicited. E-mail was forwarded to students via their university accounts from the institutional promotion center via the registrar. It was important to send the e-mails to the students via the document list in order to adhere to FERPA laws. The e-mail that

was sent to the students requested that they complete an online survey; it also included the purpose of the study, information about the researcher including contact information and whom to contact, and the informed consent, a statement that results were voluntary and confidential, and a link to the surveys. This took place within the first two weeks of the 2013 spring semester. One additional e-mail was sent in the same manner as described for the initial e-mail after three weeks. All instruments used, prepared by Mind Garden, were administered online through a link. The site administrator gathered the data and presented the raw data to the researcher through a secure website at mindgarden.com. Raw data were gathered and computed using SPSS software.

Data Analysis

A multiple regression analysis was conducted to evaluate the null hypothesis that there is no statistically significant relationship between the combination of cultural intelligence factors and transformational leadership style in doctorate of education students. An additional multiple regression analysis was conducted to evaluate the null hypothesis that there is no statistically significant relationship between cultural intelligence and its subscales, transformational leadership and its subscales and burnout in doctorate of education students. Specifically, a standard multiple regression was conducted in both cases with an alpha level of .05 set to determine significance. In this type of multiple regression, all independent or predictor variables are entered at once, but each are evaluated and assessed in relationship to the criterion or dependent variable (Tabachnick & Fidell, 2007). In standard multiple regression analysis, it is possible for the predictor variables to seem unimportant. Because of this the researcher must be careful when interpreting, discussing, and analyzing results (Tabachnick & Fidell, 2007).

Multiple regression analysis is the best means for data analysis because the researcher would like to learn more about what the best predictor of transformational leadership is based on cultural intelligence factors and how transformational leadership and cultural intelligence relate to burnout. As this is a newer area of research with little theoretical foundation, standard multiple regression was deemed the most appropriate type of analysis. Further, a Type I error occurs when the researcher rejects the null hypothesis when it is true, “and its conditional probability (the probability of rejecting the null hypothesis given that it is true) is designated as alpha, the size of the rejection region” (Howell, 2008, p. 158). The risk of an increased Type I error exists when multiple analyses with the same variables are conducted; however, multiple regression can help control type I error when there are multiple variables being assessed.

Prior to conducting the analysis, several assumptions were considered. “Examination of residuals scatterplots provides a test of assumptions of normality, linearity, and homoscedasticity between predicted DV scores and errors of prediction” (Tabachnick & Fidell, 2007, p. 125). The assumption of normality was also checked through a visual inspection of the Normal Probability Plot of the regression-standardized residual. Outliers were also checked using a scatterplot of the standardized residuals and an analysis of the Mahalanobis and Cook’s distances. The assumption of multicollinearity was assessed by the analysis of the tolerance and variance inflation factor (VIF) values. All tolerance values greater than .100, and the VIF values under 10 suggest that the assumption of no multicollinearity is tenable (Tabachnick & Fidell, 2007). All of these statistics are recorded in chapter four and discussed in chapter five.

CHAPTER FOUR: FINDINGS

The purpose of this correlation study was to determine what cultural intelligence (CQ) factors predict(s) transformational leadership (TL) in doctorate of education students. This study also examined what best predicted (factors of cultural intelligence and/or transformational leadership) level of burnout (BO). Cultural intelligence was measured using the Cultural Intelligence Scale (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007). Transformational leadership was measured using the Multifactor Leadership Questionnaire (Avolio & Bass, B. M., 2004), and burnout was measured using the Maslach Burnout Inventory (Maslach, 2003b). In this chapter, the researcher summarizes the findings for each of the hypotheses, sub-hypotheses, and gives information on the demographics of the participants as well as assumption testing, and regression results.

Research Question One

Null Hypotheses

The null hypotheses tested for research question one were:

H01: There is no statistically significant relationship between the combination of cultural intelligence factors and transformational leadership style in doctorate of education students.

H01.1: Metacognitive CQ will not significantly predict transformational leadership in doctorate of education students.

H01.2: Cognitive CQ will not significantly predict transformational leadership in doctorate of education students.

H01.3: Motivational CQ will not significantly predict transformational leadership in doctorate of education students.

H01.4: Behavioral CQ will not significantly predict transformational leadership in doctorate of education students.

Variables

There are four predictor variables (each branch of CQ - metacognitive, cognitive, motivational, and behavioral) and one criterion variable (transformational leadership).

Cultural intelligence (CQ), measured by the Cultural Intelligence Scale, is “an individual’s capability to function and manage effectively in culturally diverse settings, [CQ] is a multidimensional construct targeted at situations involving cross-cultural interactions arising from differences in race, ethnicity, and nationality” (Ang et al., 2007, p. 336). *Transformational leadership* (TL), measured using the MLQ, is described by B. M. Bass and Avolio (1994) as follows:

Leaders stimulate interest among colleagues and followers to view their work from new perspectives; generate awareness of the mission and vision of the team and organization; develop colleagues and followers to higher levels of ability and potential, and motivate colleagues and followers to look beyond their own interests toward those that will benefit the group. (p. 2)

The cultural intelligence survey is organized in the following manner: questions 1-4 equal metacognitive CQ, questions 5-10 equal cognitive CQ, questions 11-15 equal motivational CQ, and questions 16-20 equal behavioral CQ. For the multifactor leadership questionnaire the questions are divided in this manner: idealized influence [attributed] (10, 18, 21, 25), idealized influence [behavior] (6, 14, 23, 34), inspirational motivation (9, 13, 26, 36), intellectual stimulation (2, 8, 30, 32), and individual consideration (15, 19, 29, 31).

Demographics

For this particular research question, 191 participants answered all cultural intelligence and transformational leadership questions. In terms of gender, 70 (36.6%) were males and 121(63.4%) were females. Participants' ages ranged from 20-69 with 12 (6.3%) participants between the ages of 20-29; 37 (19.4%) between the ages of 30-39; 70 (36.6%) between 40-49; 63 (33%) between 50-59 and 9 (4.5%) between 60-69. In terms of ethnicity, 16 (8.4%) participants were African-American; 2 (1%) were American-Indian; 1 (.5%) was Asian; 165 (86.4%) were Caucasian; 5 (2.6%) were Hispanic; 2 (1%) were classified as other with one participant identifying himself as Afro-Caribbean. Most of the participants were teachers. Twenty nine (15.2%) of the participants have worked between 1-5 years as a teacher; 48 (25.1%) between 5-10 years; 69 (36.1%) between 10-20 years; 42 (22%) have worked 20+ years as a teacher, and 3 (1.6%) participants did not respond to the years worked as a teacher question. In terms of working in an administrative capacity, 93 (48.7%) never worked as an administrator. These numbers corresponded to 48 (25.1%) participants working between 1-5 years; 30 (15.7%) between 5-10 years; 14 (7.3%) between 10-20 years; 2 (1%) have worked 20+ years as an administrator, and 4 (2.1%) participants did not respond to the years worked as an administrator question.

Descriptive Statistics

Table 1 below shows the mean and standard deviation of the sample ($N=191$) for each predictor variable. The mean and standard deviation for transformational leadership, the criterion, were $M = 3.32$ and $SD = .50$. Therefore, it can be noted, on average, this sample population of doctorate of education students (educational leaders) did not have a high level of transformational leadership.

Table 1

Summary of Means and Standard Deviations of Variables (N = 191)

Variable	<i>M</i>	<i>SD</i>
Metacognitive CQ	23.08	4.20
Cognitive CQ	25.62	8.04
Motivational CQ	27.43	5.98
Behavioral CQ	26.07	6.57

The intercorrelations among variables show the significant relationship between each of the variables under study (Table 2). All relationships were significant and had positive, small to large relationships. Metacognitive CQ with a Pearson's *r* of .50 shows a strong, positive relationship with transformational leadership, whereas the other CQ variables are weakly related to transformational leadership (Cohen, 1988).

Table 2

Intercorrelations among Variables

Variable	Transformational Leadership	Met CQ	Cog CQ	Mot CQ	Beh CQ
Transformational Leadership	—				
Metacognitive (Met CQ)	.50**	—			
Cognitive (Cog CQ)	.22**	.53**	—		
Motivational (Mot CQ)	.28**	.51**	.51**	—	
Behavioral (Beh CQ)	.26**	.55**	.52**	.60**	—

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

Assumption Testing

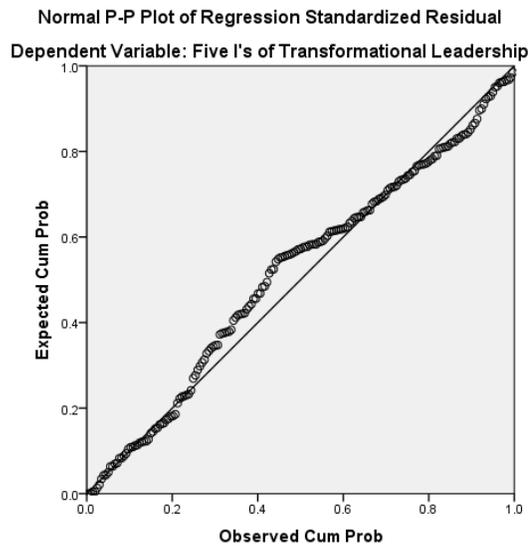
Preliminary analyses were performed to ensure no violations of the assumptions of multicollinearity, normality, and extreme outliers for the variables of cultural intelligence and transformational leadership.

Multicollinearity. The assumption of no multicollinearity was assessed using the bivariate correlations and tolerance values for each independent variable. Results of the bivariate correlations among variables are shown in Table 2. Since correlations among predictor variables were less than .7, the assumption of no multicollinearity was not violated. Tolerance values of less than .10 are a concern for researchers. The tolerance value for each independent variable ranged from .51 (behavioral CQ) to .60 (cognitive CQ), which is not less than .10. These results also support the assertion that the assumption of no multicollinearity has not been violated. VIF values over 10 are not ideal, and the VIF numbers for this study were not greater than 10, which would also support the assumption of no multicollinearity.

Normality. The assumption of normality assumes that the population from which the variables came from was normally distributed. Normality occurs when residuals are normally distributed around the dependent or criterion variables (Tabachnick & Fidell, 2007). There are several ways to test for normality. One such way is the Kolmogorov-Smirnov value or statistic. A *p*-value of more than .05 indicates normality. This was the case for all variables analyzed.

The assumption of normality was further assessed by a visual inspection of the Normal Probability Plot of the regression-standardized residual. If the values on the Normal P-P plot lie in a reasonably straight line, then assumption of normality is tenable. This was the case for this analysis (See Figure 1 below).

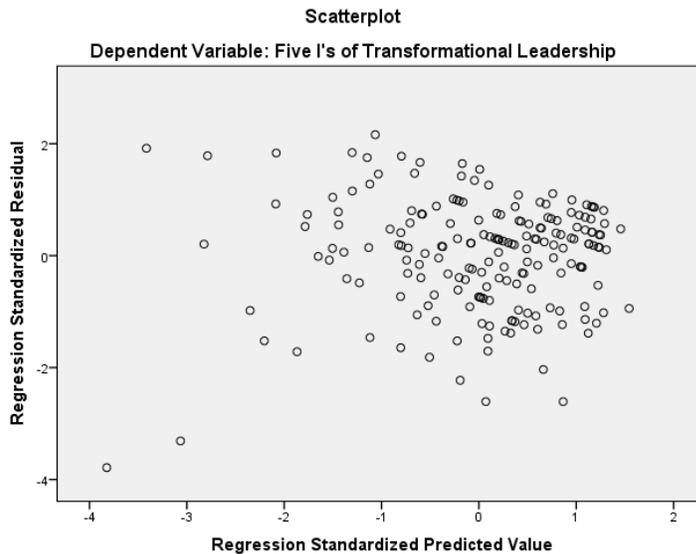
Figure 1 Normal P-P Plot of Regression Standardized Residual



No extreme outliers. According to Tabachnick and Fidell (2007) outliers are those standardized residual values that are about 3.3 or less than -3.3. By visually viewing the scatter plot (see Figure 2) and reviewing the Mahalanobis distance outliers were examined. The assumption of no extreme outliers was found valid because the scatterplot did not have values of more than 3.3 or less than -3.3. This was supported also by the analysis of the Mahalanobis distance values, and no case exceeded the criteria of 32.216.

Homoscedasticity. Homoscedasticity tests the variance around predicted scores. These should be the same for all predicted scores (Tabachnick & Fidell, 2007). In other words, the variance of residual error should be constant for all values of the independent(s). In order to determine this, the scatterplot was examined to find a rectangular or cigar shaped pattern. Figure 2 demonstrates this fact; thus the assumption of homoscedasticity is tenable.

Figure 2 Scatterplot



Results of the Regression

To determine how much overall variance is explained by the predictor variables (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ), the researcher conducted a standard multiple regression. Results of the multiple regression analysis yield whether the linear combination of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ accounted for significant variability in transformational leadership, $F(4,190) = 15.82, p < .01$. The multiple correlation coefficient was .50. Approximately 25.4% (obtained by taking $R^2 = .254 \times 100$) of the variance of transformational leadership is accounted for by the combination of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ. Thus, the first null hypothesis (H01.1) was rejected.

Evaluating Predictor Variables

To determine the contribution of each individual variable to the overall model, the researcher examined the t value, its significance level, and Beta values. The largest, significant Beta value indicates the strongest unique contribution to explain transformational leadership,

(Tabachnick & Fidell, 2007). In this study, metacognitive CQ makes the most significant unique contribution to the predictive model for transformational leadership. The Beta value for metacognitive CQ was .53, $p < .01$. , metacognitive CQ has a positive relationship with transformational leadership, so as metacognitive CQ increases, so does transformational leadership. Cognitive CQ, motivational CQ, and behavioral CQ did not make a significant, individual contribution to the model of transformational leadership (see Table 3).

Table 3

Contributions of Predictor Variables (N = 191)

Variable	Zero-Order r	Partial r	β	SE B	B	t	p
Metacognitive CQ	.50	.42	.53	.01	.06	6.30	<.01**
Cognitive CQ	.22	-.09	-.10	.01	-.01	-1.18	.24
Motivational CQ	.28	.07	.08	.01	.01	.97	.34
Behavioral CQ	.26	-.03	-.04	.01	-.00	-.41	.68

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

Research Question Two

Null hypotheses

The null hypotheses tested for research question two were:

H02.1: Metacognitive CQ will not significantly predict burnout in doctorate of education students.

H02.2: Cognitive CQ will not significantly predict burnout in doctorate of education students.

H02.3: Motivational CQ will not significantly predict burnout in doctorate of education students.

H02.4: Behavioral CQ will not significantly predict burnout in doctorate of education students.

H02.5: Idealized influence (attributed) will not significantly predict burnout in doctorate of education students.

H02.6: Idealized influence (behavior) will not significantly predict burnout in doctorate of education students.

H02.7: Inspirational Motivation will not significantly predict burnout in doctorate of education students.

H02.8: Intellectual Stimulation will not significantly predict burnout in doctorate of education students.

H02.9: Individualized Consideration will not significantly predict burnout in doctorate of education students.

Variables

For research question two there were several predictor variables that included metacognitive, cognitive, motivational, and behavioral CQ as well as idealized influence (attributed), idealized influence (behavioral), inspirational motivation, intellectual stimulation, and individualized consideration. The criterion variable in this research question was burnout.

Burnout, a syndrome of emotional exhaustion, depersonalization, and low or reduced personal accomplishment (Maslach, Jackson, & Leiter, 1996), was measured using the Maslach Burnout Inventory (MBI). Questions 1, 2, 3, 6, 8, 13, 14, 16, and 20 of the MBI measure emotional exhaustion. Questions 5, 10, 11, 15, and 22 measure depersonalization, and questions 4, 7, 9, 12, 17, 18, 19, and 21 measure personal accomplishment.

Maslach, Jackson, and Leiter (1996) explained “*burnout* is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among

individuals who work with people in some capacity” (p. 4). *Cultural intelligence* (CQ) is “an individual’s capability to function and manage effectively in culturally diverse settings, [CQ] is a multidimensional construct targeted at situations involving cross-cultural interactions arising from differences in race, ethnicity, and nationality” (Ang et al., 2007, p. 336). *Transformational leadership* (TL) as described by B. M. Bass and Avolio (1994) is

Leaders stimulate interest among colleagues and followers to view their work from new perspectives; generate awareness of the mission and vision of the team and organization; develop colleagues and followers to higher levels of ability and potential, and motivate colleagues and followers to look beyond their own interests toward those that will benefit the group. (p. 2)

Demographics

For this particular research question, 178 participants answered all questions related to the criterion and predictor variables. In terms of gender, 67 (37.6%) were males and 111 (62.4%) were females. Participants’ ages ranged from 20-69 with 12 (6.7%) participants between the ages of 20-29; 34 (19.1%) between the ages of 30-39; 64 (36%) between 40-49; 60 (33.7%) between 50-59, and 8 (4.5%) between 60-69. In terms of ethnicity, 16 (9%) participants were African-American; 2 (1.1%) were American-Indian; 1 (.6%) was Asian; 152 (85.4%) were Caucasian; 5 (2.8%) were Hispanic; 2 (1.1%) were classified as other with one participant identifying himself as Afro-Caribbean. Most of the participants were teachers. Twenty nine (16.3%) participants have worked between 1-5 years as a teacher; 44 (24.7%) between 5-10 years; 63 (35.4%) between 10-20 years; 39 (21.9%) have worked 20+ years, and 3 (1.7%) participants did not indicate their years as a teacher. In response to the question regarding

number of years in administration, 86 or 48.3% have never worked as an administrator. These numbers corresponded to 45 (25.3%) participants working between 1-5 years; 27 (15.2%) between 5-10 years; 14 (7.9%) between 10-20 years; 2 (1.1%) over 20 years as an administrator, and 4 (2.2%) participants did not respond to the years worked as an administrator question.

Descriptive Statistics

Table 4 below shows the mean and standard deviation of the sample ($N=178$) for each criterion and predictor variable. The mean and standard deviation for burnout, the criterion, were $M = 8.07$ and $SD = 1.83$. Therefore, it can be noted that on average this population of doctorate of education students (educational leaders) had relatively high levels of burnout.

Table 4

Summary of Means and Standard Deviations of Variables ($N = 178$)

Variable	<i>M</i>	<i>SD</i>
Burnout	8.07	1.83
Metacognitive CQ	23.03	4.22
Cognitive CQ	25.56	8.09
Motivational CQ	27.46	5.96
Behavioral CQ	26.04	6.50
Idealized Influence (Attributed)	3.18	.61
Idealized Influence (Behavior)	3.40	.56
Inspirational Motivation	3.38	.64
Intellectual Stimulation	3.16	.60
Individualized Consideration	3.49	.57

Table 5 demonstrated the intercorrelations among variables. Burnout has a negative relationship with a number of the predictor variables (See Table 5).

Table 5

Intercorrelations among Variables (N = 178)

Variable	BO	MetCQ	CogCQ	MotCQ	BehCQ	IIA	IIB	IM	IS	IC
Burnout (BO)	—									
Metacognitive (Met CQ)	-.19*	—								
Cognitive (Cog CQ)	-.13	.55**	—							
Motivational (Mot CQ)	-.21**	.53**	.52**	—						
Behavioral (Beh CQ)	-.11	.55**	.49**	.63**	—					
Idealized Influence [attributed] (IIA)	-.21**	.39**	.12	.24**	.19**	—				
Idealized Influence [behavior] (IIB)	-.16*	.33**	.12	.17*	.15*	.67**	—			
Inspirational Motivation (IM)	-.30**	.42**	.18*	.27**	.23**	.76**	.73**	—		
Intellectual Stimulation (IS)	-.12	.46**	.30**	.29**	.25**	.55**	.55**	.63**	—	
Individualized Consideration (IC)	-.30**	.52**	.24**	.22**	.29**	.63**	.66**	.74**	.64**	—

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

Assumption Testing

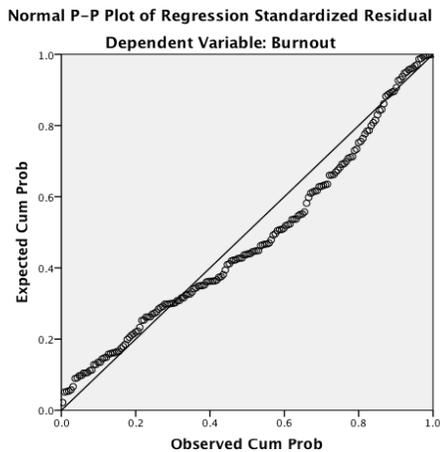
Preliminary analyses were performed to ensure no violations of the assumptions of multicollinearity, normality, and extreme outliers for variables under study in each question.

Multicollinearity. The assumption of no multicollinearity was assessed using the bivariate correlations and tolerance values for each independent variable. A bivariate correlation of .7 or more is ideal for researchers. Since correlations among predictor variables were less than .7, the assumption of no multicollinearity was not violated. Tolerance values of less than .10 are a concern for researchers. The tolerance value for each independent variable ranged from .27 (inspirational motivation) to .59 (cognitive CQ), which is not less than .10. These results also support the assertion that the assumption of no multicollinearity has not been violated. VIF values over 10 are not ideal, and the VIF numbers for this study were not greater than 10, which would also support the assumption of no multicollinearity.

Normality. The assumption of normality assumes that the population from which the variables came was normally distributed. Normality occurs when residuals are normally distributed around the dependent or criterion variables (Tabachnick & Fidell, 2007). There are several ways to test for normality. One such way is the Kolmogorov-Smirnov value or statistic. A p -value of more than .05 indicates normality. For all variables, the assumption of normality is tenable.

The assumption of normality was further assessed by a visual inspection of the Normal Probability Plot of the regression-standardized residual. If the values on the Normal P-P plot lie in a reasonably straight line, then assumption of normality is tenable. This was the case for this analysis (See Figure 3).

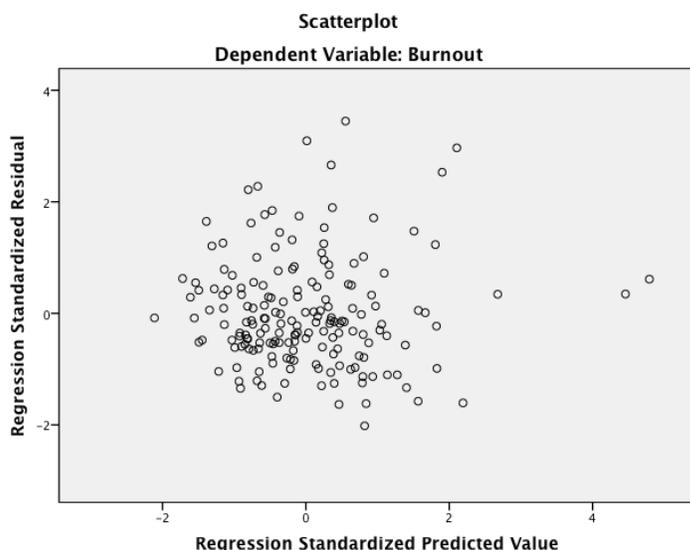
Figure 3 Normal P-P Plot of Regression Standardized Residual



No extreme outliers. According to Tabachnick and Fidell (2007) outliers are those standardized residual values that are about 3.3 or less than -3.3. By visually viewing the scatter plot (see Figure 2) and reviewing the Mahalanobis distance outliers were examined. The assumption of no extreme outliers was found valid because the scatterplot did not have values of more than 3.3 or less than -3.3. This was supported also by the analysis of the Mahalanobis distance values, and no case exceeded the value of 58.084.

Homoscedasticity. Homoscedasticity tests the variance around predicted scores. These should be the same for all predicted scores (Tabachnick & Fidell, 2007). In other words, the variance of residual error should be constant for all values of the independent(s). In order to determine this, the scatterplot was examined to find a rectangular or cigar shaped pattern. Figure 4 demonstrates this fact; thus, the assumption of homoscedasticity is tenable.

Figure 4 Scatterplot



Results of the Regression

To determine how much overall variance is explained by the predictor variables (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ, idealized influence [attributed], idealized influence [behavior], inspirational motivation, intellectual stimulation, individualized consideration), the researcher conducted a standard multiple regression. Results of the multiple regression analysis when examining the SPSS output, the ANOVA table and model summary tell the researcher whether the linear combination of metacognitive CQ, cognitive CQ, motivational CQ, behavioral CQ, idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individualized consideration account for significant variability in burnout. The results, $F(9, 177) = 3.498, p < .01, adj R^2 = .158$, demonstrate that the overall model to predict burnout was statistically significant.

Approximately 15.8% (obtained by taking $adj R^2 = .158 \times 100$) of the variance of burnout is accounted for by the combination of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ, idealized influence [attributed], idealized influence

[behavior], inspirational motivation, intellectual stimulation, and individualized consideration. Thus, there is a relationship between cultural intelligence, transformational leadership, and burnout.

Evaluating Predictor Variables

To examine each predictor variable (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ, idealized influence [attributed], idealized influence [behavior], inspirational motivation, intellectual stimulation, individualized consideration), the researcher examined each of the t values, significance levels, and Beta values. Large Beta values equal stronger unique contributions to the criterion variable (Tabachnick & Fidell, 2007). For this study, motivational CQ, inspirational motivation, intellectual stimulation, and individualized consideration made the strongest unique contribution to burnout (See Table 6). As the beta values were negative, these attributes increased as burnout decreased. Metacognitive CQ, cognitive CQ, behavioral CQ, idealized influence (attributed), and idealized influence (behavior) did not individually; significantly contribute to the model of burnout (See Table 6). Based on this analysis, the following null hypotheses can be rejected: H02.3: Motivational CQ will not significantly predict burnout in doctorate of education students; H02.7: Inspirational Motivation will not significantly predict burnout in doctorate of education students; H02.8: Intellectual Stimulation will not significantly predict burnout in doctorate of education students; and H02.9: Individualized Consideration will not significantly predict burnout in doctorate of education students. The researcher fails to reject the remaining hypotheses for question two.

Table 6

Contributions of Predictor Variables (N = 178)

Variable	Zero-Order <i>r</i>	Partial <i>r</i>	β	SE <i>B</i>	<i>B</i>	<i>t</i>	<i>p</i>
Metacognitive CQ	-.19	.01	.01	.05	.01	.14	.89
Cognitive CQ	-.13	-.03	-.04	.02	-.01	-.43	.67
Motivational CQ	-.21	-.16	-.21	.03	-.06	-2.10	.04*
Behavioral CQ	-.11	.08	.11	.03	.03	1.10	.28
Idealized Influence (Attributed)	-.21	.01	.01	.34	.04	.12	.90
Idealized Influence (Behavior)	-.16	.10	.15	.37	.48	1.31	.19
Inspirational Motivation	-.30	-.16	-.28	.39	-.81	-2.08	.04*
Intellectual Stimulation	-.12	.16	-.21	.31	.63	2.06	.04*
Individualized Consideration	-.30	-.19	-.31	.39	-.99	-2.55	.01*

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

CHAPTER FIVE: DISCUSSION

Introduction

This quantitative, multivariate correlational study examined the relationship between cultural intelligence, transformational leadership, and burnout. A multivariate, predictive correlational research design was used. Correlational research designs allow researchers to examine the relationship between variables and to “predict scores on one variable from research participants’ scores on other variables” (Gall, M.D., Gall, J. P., & Borg, 2007, p. 337). Predictive correlation research enables the researcher to examine the predictive relationship between multiple predictor variables and one criterion variable.

In the present predictive correlation study, doctorate of education students were surveyed via an online survey including an informed consent and demographic questions. The survey included the Cultural Intelligence Scale (CQS) (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007), the Multifactor Leadership Questionnaire (MLQ) short form for transformational leadership only (Avolio & Bass, B. M., 2004), and the Maslach Burnout Inventory (MBI) Educators’ Survey (Maslach, 2003b). Multiple regression analyses were used to analyze the data and to determine the ability of a set of variables to predict the relationship between a single criterion variable (Tabachnick & Fidell, 2007). The predictor variable of cultural intelligence (CQ) was studied in relationship to the criterion variable of transformational leadership. Also, the predictor variables of transformational leadership and cultural intelligence were investigated to determine a relationship to the criterion variable of burnout. The current study is significant in that the model to predict transformational leadership was significant, and it was determined that the strongest unique contributor to the model is metacognitive CQ. It was also determined that the model for burnout was significant, and motivational CQ,

inspirational motivation, intellectual stimulation, and individualized consideration had the strongest unique contribution to burnout.

The current study will be discussed in this chapter, and the chapter will include a discussion of findings, theoretical implications, implications for practice, implications for future research, limitations, and conclusion.

Findings

CQ as a predictor of TL

Research question one asked, what cultural intelligence factor(s) best predict(s) transformational leadership style in doctorate of education students? Previous research has shown that cultural intelligence can positively influence cross-cultural and overall leadership effectiveness in undergraduates, managers, professionals, and supervisors (Ang, Van Dyne, & Koh, 2006; Deng & Gibson, 2008; Deng & Gibson, 2009; Keung & Rockinson-Szapkiw, 2013). When each individual factor of cultural intelligence was examined, metacognitive CQ was the most and only significant predictor of transformational leadership. This is similar to literature that suggests a relationship between cognitive CQ and transformational leadership (Ang, et al., 2007). Metacognitive CQ along with cognitive CQ are the mental components of the cultural intelligence model. Leaders who utilize their metacognitive mental processes are able to have a conscious awareness of their cultural situations (Rockstuhl, Seiler, Ang, Van Dyne, & Annen, 2011). Leaders high in metacognitive CQ are active thinkers about people and cultural settings. They have the ability to control thought processes and understand cultural knowledge (Ang & Van Dyne, 2008). Controlling thought processes and understanding culture, cultural situations, and people makes a leader more transformational and therefore more effective (Ang & Van Dyne, 2008). As doctorate of education students are frequently encouraged to

think about their thinking and use higher order thinking skills, these leaders and scholars may have used a scholarly, critical thinking approach to analyze and answer the survey questions as well as to think about culture. Terenzini, Springer, Pascarella, and Nora (1995) found “the relative and unique effects on changes in critical thinking of three dimensions of students' college experience [to be] curricular exposure, formal classroom and instructional experiences, and out-of-class experiences” (p. 23). Based on this information, one can surmise that this population of doctoral students have increased critical thinking skills based on their “curricular exposure, formal classroom and instructional experiences, and out of class experiences” (Terenzini, Springer, Pascarella, & Nora, 1995, p. 23). This type of critical thinking is an important component of metacognitive CQ and thus, this population of doctoral students may have been higher in this area of cultural intelligence compared to the other factors of cognitive, motivational, and behavioral CQ. Therefore, the relationship between metacognitive CQ and transformational leadership was positive in these educational leaders. Thus, because of this, their mental processes and well-developed critical thinking skills made them consciously regard survey questions and answer them in a more critical way with thought processes and not with feelings.

CQ and TL as predictors of Burnout

Research question two asked, what is the best predictor (factors of cultural intelligence and/or transformational leadership) of level of burnout in doctorate of education students? Each subscale of cultural intelligence (metacognitive, cognitive, motivational, and behavioral) as well as each subscale of transformational leadership (idealized influence [attributed], idealized influence [behavior], inspirational motivation, intellectual stimulation, and individualized consideration) was studied in relation to the

overall burnout score. The model was significant, and the predictors that made the most significant contribution to the burnout model were motivational CQ, inspirational motivation, intellectual stimulation, and individualized consideration. Burnout had a negative relationship with cultural intelligence and transformational leadership. This was consistent with previous research in these areas. Seltzer, Numerof, and B. M. Bass (1989) found in a study of part-time MBA students that burnout was reduced in leaders and subordinates when transformational leadership was applied.

Inspirational motivation, intellectual stimulation, and individualized consideration were all unique contributors to burnout. This is not surprising as these three variables are influential in motivation, problem solving, reducing stress, and caring about others' wellbeing (Den Hartog, Van Muijen, & Koopman, 1997). Motivating oneself and others, critically thinking about situations, and putting others first are all qualities that contribute to leaders being transformational (Den Hartog, et al., 1997). Research in the area of burnout and leadership has shown that transactional and transformational leaders are proactive and capable of resolving problems, hence reducing stress levels, and burnout (Den Hartog, et al., 1997). Doctoral students, training to be educational leaders, with high levels of these attributes are likely to have lower levels of burnout.

Research in the area of burnout and cultural sensitivity has shown one of the root causes of burnout is cultural development (Schaufeli, Leiter, & Maslach, 2009). The more one interacts with others who are diverse, the more likely they are to become burned out (Tatar & Horenczyk, 2003). This phenomenon has been seen in research involving teachers (Chan, 2006; Kokkinos, 2011), pastors (Chandler, 2009), police officers (Burke & Mikkelsen, 2006), counselors (Patrick, 2006b), and college and university administrators (Gentry, Katz, & McFeeters, 2009). This is consistent with the current results

demonstrating a negative relationship between cultural intelligence and burnout. Those high in cultural intelligence have lower levels of burnout and vice versa. Leaders with high levels of cultural intelligence may be better equipped to handle cross cultural situations and interactions (Livermore, 2009; Patrick, 2006a); thus, less likely to experience burnout. This population of doctorate of education students showed that in the areas of cultural intelligence and transformational leadership, they might be capable of handling cross-cultural situations particularly in the area of motivational CQ. Thus, it is not surprising that the results indicated that leaders who have cultural intelligence are better able to handle cross-cultural interactions and less likely to burnout.

Theoretical Implications

Research in cultural intelligence seeks to understand leaders' competence in working with a diverse population. CQ has played a significant role in effective leadership throughout the research (Alon & Higgins, 2005; Ang & Inkpen, 2008; Deng & Gibson, 2009). Research has shown a positive relationship between cultural intelligence and transformational leadership within several populations such as university presidents, CEOs, and executives (Basham, 2012; Bass, B. M. & Yokochi, 1991). Thus, the current study extends the research in this area by applying the theory to another population (doctorate of education students). The significant predictive model for effective leadership found in previous research was consistent within the population in this study.

Because of globalization there is a real need for culturally sensitive, effective, leaders, and there needs to be a better understanding of global leadership (Suutari, 2002). The need for global leaders is urgent and "serious deficiencies exist in the preparation of corporate managers as they deal with the interpersonal realities of global business" (Alon & Higgins, 2005, p. 502). Moreover, leaders in a global world are susceptible to burnout.

Burnout research has been conducted in education, hospitality management, counseling, law enforcement, and among pastors (Bullock, 2011; Burke & Mikkelsen, 2006; Chandler, 2009; Chandras, Eddy, & Spaulding, 2000; Gentry, et al., 2009; Kim & Atkinson, 2002). Job related stress and other factors that cause it have inundated the research on educators and burnout (Maslach, 1976; Mendes, 2002; Rothman & Barkhuizen, 2008). Previous research has also focused on teacher and administrator stress, burnout, and job satisfaction (Maslach, 1976) with the purpose of improving pedagogy (Casanave & Hubbard, 1992; Kamler & Thomson, 2006), writing, and epistemological perspectives (Pallas, 2001). While research has suggested that cultural interactions can cause stress and lead to burnout (Hobfoll & Freedy, 1993; Tatar & Horenczyk, 2003), very little research has focused on the relationship between cultural knowledge and ability and burnout. Thus, the current research focused on doctorate of education students as leaders, used the variables of cultural intelligence, in addition to transformational leadership to predict burnout.

Implications for Practice

Understanding that elements of cultural intelligence (CQ) are predictive of effective leadership, important for educational leaders, and also for programs of study at all levels. Understanding the factors that contribute to the development of an effective leadership style as well as factors that help protect individuals (leaders) from burnout are important in informing curriculum for future leaders entering a global society.

As colleges, universities, and K-12 institutions are selecting leaders, it is important to acknowledge the role of a leader's cultural competence and sensitivity in their effectiveness to lead; it may need to be evaluated when these institutions are hiring. During the hiring process, schools would benefit from establishing guidelines for hiring not only the most competent person, but also the most culturally sensitive leader. This could

be accomplished by administering the Cultural Intelligence Scale during the hiring process. This would give school administrators a gauge as to the leader's cultural sensitivity for hiring decisions or areas needed for professional development if hired.

As higher education institutions are selecting students for doctoral studies, they may consider adding measures to screen students for admission into programs. Universities may consider evaluating the students' cultural competence in the admissions process as an indicator of success in the program and beyond. Many believe there should be a broader evaluation of the individual being admitted to determine the best fit and their best chance for success as grade point average and test scores alone are narrow and do not assess the abilities of the individual (Sternberg, 2006; 2012) particularly those individuals who are entering doctorate of education programs. If administered as part of the admissions paperwork, the Cultural Intelligence Scale (Ang, et. al, 2007) would measure students' strengths and weaknesses in terms of cultural sensitivity. This assessment before entering a doctoral program may provide admissions counselors with information about who may be most successful in the program; thus, a good choice to accept. Admission counselors could also provide the information to program directors and faculty as a tool for curriculum development aimed at meeting the needs of students. For example, results of the CQS can be discussed openly inside the classroom by faculty and students. This would give students a better understanding of their overall results and needed areas of improvement as they develop as leaders and scholars through their program. As cultural intelligence was found to be significant in predicting effective leadership in future educational leaders, integration of cultural intelligence training may be considered when developing curriculum for doctorate of education programs. Classes could also be constructed for faculty to teach cultural intelligence and cultural sensitivity as well. In addition to curriculum integration,

universities could offer training on campus and outside of the traditional classroom as well. Campuses could offer workshops that address cultural sensitivity, and these workshops could take place on campus as part of cultural awareness week, online via a content management system, or during residency. A good example of this is when The Cultural Intelligence Center conducted workshops on college campuses within a four-day timeframe (“Sample Cultural Intelligence Session”, 2013). Day one consisted of giving students a working understanding of what CQ is and all four components. Day two gave individuals an idea of how to assess CQ in themselves and in others. Days three and four consisted of further explaining CQ and gave leaders a greater understanding of CQ. During these days leaders also developed a plan to enhance CQ within themselves and within their organizations (“Sample Cultural Intelligence Session”, 2013). This type of sensitivity training is necessary for leaders to function effectively in a global society.

The same methods could be done with burnout or stress reduction training. The MBI could be administered during orientation to assess the needs of the students. Then throughout the students’ coursework, the needs of the students could be met with programs outside of the classroom that help reduce stress. One such program is the Mindfulness approach program that can be work in conjunction with cultural intelligence and transformational leadership training. This program can support the integration of the components of cultural intelligence (metacognitive, cognitive, motivational, and behavioral) as well as the components of transformational leadership (idealized influence [attributed], idealized influence [behavior], inspirational motivation, intellectual stimulation, and individualized consideration. Although the Mindfulness approach’s origins are grounded in Buddhism, the approach today is non-religious in nature and the concepts have validity in dealing with stress management (Grossman, Niemann, Schmidt,

& Walach, 2004). Burned out leaders are not effective and in some cases may have lower levels of cultural intelligence depending on their work environment. The Mindfulness approach addresses both concepts of cultural intelligence and transformational leadership. The Mindfulness approach “assumes that greater awareness will provide more veridical perception, reduce negative affect and improve vitality and coping” (Grossman, et al., 2004, p. 35). The research of Grossman, Niemann, Schmidt, and Walach (2004) supported that Mindfulness based stress reduction (MBSR) does help individuals cope with problems of a clinical and non-clinical nature. The MBSR is usually an 8-10 week group program with anywhere from 10 to 40 participants. The sessions include meditation, awareness during yoga postures, “and mindfulness during stressful situations and social interactions” (Grossman et al., 2004, p. 38). This 8-10 week course may not be conducive to an educational environment (i.e. a doctoral program), but this researcher’s suggestion is that it be reduced to a weeklong course with 45-minute interventions within the semester for doctoral students if needed. This could potentially reduce not only their job related stress, but their academic stressors as well. Because metacognitive and cognitive CQ are the mental processes of cultural intelligence (Rockstuhl, et al., 2011), and leaders high in cultural intelligence are transformational (Ang, et al., 2006), the Mindfulness approach helps to address the issues of cultural intelligence and transformational leadership in leaders by sharpening their focus on the environment around them.

Assumptions and Limitations

There are a few assumptions and limitations of the current study that need to be addressed. The survey was voluntary and anonymous, so the researcher assumed that the participants answered the questions honestly and only if they qualified for the study criteria. However, the participants could also have felt a need to score highly on the tests

and answer the questions in a dishonest manner. This in itself is a limitation of self-report assessments.

There were several additional threats to validity. These included, but were not limited to, history or events outside of the experiment that participants had experienced or were experiencing at the time of the study. Omitted variable bias arises if an omitted variable is a determinant of Y and is correlated with at least one included predictor. This might have been the case with a variable such as age, which was not accounted for in the research. If the variable can be measured, the researcher includes it as a predictor in the regression model. These could not be predicted by the researcher, yet may have influenced the participants' responses (Gall, M. D., Gall, J. P., & Borg, 2007). Another limitation was the number of survey questions, which could have caused fatigue in respondents. Some participants did not complete the survey in its entirety, thus this is an issue of non-ignorable non-response in this study. This problem of non-response must be noted when applying the results of this study and making inferences (King, Honaker, Joseph, & Sheve, 1998). Also, no statistical controls were utilized in the data analysis to address this issue of non-ignorable non-response; therefore, it is difficult to apply the findings of this study to the participants who did not answer the survey questions in their entirety (Hausman & Wise, 1979). This researcher chose to delete the missing values and therefore the *N* value differed from research question one to research question two.

Doctorate of education students who were enrolled in a blended (online and traditional) program were sampled in this study; results can be generalized only to doctorate of education students in this program who participated in the study. Results may not be generalizable to an overall population of education students outside of the blended format and outside the sample population studied. Participants in this study were mostly

non-traditional, working students. The ages of the participants ranged between 20 and 69 with only 12 participants being between the ages of 20-29. Most participants were female (63%). Most have worked between 10-20 years as a teacher and 1-5 years as an administrator. These leaders are experienced and are not new to the field of education. However, other doctorate populations should be examined to see if results could be replicated.

Implications for Future Research

This study also needs to be replicated to include populations outside of doctorate of education students. For example, students pursuing terminal degrees in fields such as math, science, and journalism could be studied. As this study focused primarily on American students; it could be replicated with international students attending American universities or universities in their passport countries. This researcher assumed that all of the doctorate of education students could read and write fluently in English because of the university's admission requirements and foreign students' proficiency entrance exam. Examining foreign-born or foreign speaking students and hanging the surveys into other languages may benefit future research on cultural intelligence, transformational leadership, and burnout. The limitation of self-report assessments could be addressed by including an observation or other's ratings. The recommendation to reduce this bias is for participants to go through a 360-degree evaluation.

Future studies could employ CQ training within the four-day format suggested by The Cultural Intelligence Center where trainers come in and teach about cultural intelligence among leaders. Also, the Mindfulness approach to stress reduction can be employed as well. Researchers could then implement experimental research to determine

cause and effect. A pretest posttest control group design could examine the effect of cultural intelligence and leadership interventions on burnout.

Conclusion

This study has shown a relationship between cultural intelligence, a relatively new construct, transformational leadership, and burnout. As transformational leadership and burnout (Koustelios & Tsigilis, 2005; Raiger, 2005) have dominated research, cultural intelligence as it continues to grow, will become more and more significant in a globally diverse, technologically impactful society. Researchers are interested in why some leaders are more effective than others, and not just whether they are effective or not, in cultural situations (Ang et al., 2007). Other research has tried to explain cultural intelligence's impact on intercultural interactions (Earley, 2002). A vast majority of research has been done with burnout and cultural sensitivity in counseling (Kim & Atkinson, 2002; Patrick, 2006a; Patrick, 2006b; Wee & Myers, 2002). The current study was concerned primarily with the relationship between cultural intelligence, transformational leadership, and burnout in students pursuing terminal degrees in education. Yet still more research needs to be done to determine if cultural intelligence alone, or transformational leadership alone predicts burnout in educational leaders.

As society becomes more globalized and it is understood that globalization increases leaders stress and burnout, further research is needed in the areas of cultural intelligence, transformational leadership, and burnout. As educational leadership is changing and more changes will take place over the next 10 years, those training to become educational leaders need to be examined. Thus, this predictive correlational study confirmed the relationship between cultural intelligence and transformational leadership

and examined their ability to predict burnout in doctorate of education students; thus, this study began to contribute to this discussion.

References

- Alon, I., & Higgins, J. M. (2005). Global leadership success through emotional and cultural intelligence. *Business Horizons*, 48(6), 501-512. doi: 10.1016/j.bushor.2005.04.003
- Altbach, P.G., & Knight, J. (2007). The internalization of higher education: Motivations and realities. *Journal of studies in international education*, 11(3-4), 290-305.
- Amarjit S. G., Flaschner, A. B. & Shachar, M. (2006) Mitigating stress and burnout by implementing transformational-leadership. *International Journal of Contemporary Hospitality Management*, 18(6), 469-481.
- Anastasios, Z., & Panayiotis, C. (2010). Leadership styles and burnout: Is there an association? *International Journal of Contemporary Hospitality Management*, 22(3), 300-320.
- Ang, S., & Inkpen, A. C. (2008). Cultural intelligence and offshore outsourcing success: A framework of firm-level intercultural capability. *Decision Sciences*, 39(3), 337-358. doi: 10.1111/j.1540-5915.2008.00195.x
- Ang, S., & Van Dyne, L. (2008). *Handbook of cultural intelligence: Theory, measurement, and applications*. Armonk, NY: M.E. Sharpe.
- Ang, S., Van Dyne, L., Koh, C., Ng, K. Y. (2004). *The measurement of cultural intelligence*. Paper presented at the Academy of Management Meeting's Symposium on Cultural Intelligence in the 21st Century. New Orleans, LA.
- Ang, S., Van Dyne, L. & Koh, C. (2006). Personality correlates of the four-factor model of cultural intelligence. *Group & Organization Management*, 31(1), 100-123. doi: 10.1177/1059601105275267

- Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision-making, cultural adaptation and task performance. *Management and Organization Review*, 3(3), 335-371, doi: 10.1111/j.1740-8784.2007.00082.x
- Antonakis, J., Avolio, B. J., & Sivasubramaniam, N. (2003). Context and leadership: An examination of the nine-factor full-range leadership theory using the Multifactor Leadership Questionnaire. *The Leadership Quarterly*, 14(3), 261-295. doi: 10/1016/s1048-9843(03)00030-4
- Aslanian, C. B., & Clinefelter, D. L. (2012). *Online college students 2012: Comprehensive data on demands and preferences*. Louisville, KY: The Learning House, Inc.
- Avolio, B. J. (2007). Promoting more integrative strategies for leadership theory-building. *American Psychologist*, 62, 25-33.
- Avolio, B. J., & Bass, B. M. (1994). *Evaluate the Impact of the Full Range of Leadership Training: Final report to the Kellogg Foundation*, Binghamton: State University of New York at Binghamton, Center for Leadership Studies.
- Avolio, B. J., & Bass, B. M. (2004). *Multifactor leadership questionnaire (3rd ed.): MLQ manual and sampler set*. Menlo Park, CA: Mind Garden, Inc.
- Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, 72, 441-462.
- Avolio, B. J., Sosik, J. J., Jung, D. I., & Berson, Y. (2003). Leadership models, methods, and applications: Small steps and giant leaps. In Borman W. C., Klimoski R., Ilgen

- D. R., Weiner B (Eds.). *Handbook of psychology* (Vol. 12, pp. 277-307). New York, NY: John Wiley & Sons.
- Bakker, A, Demerouti, E., & Euwema, M. C. (2005). Exploring the relationship between a multidimensional and multifaceted burnout concept and self-rated performance. *Journal of Management*. 31(2), 186-209.
- Basham, L. (2012). Transformational leadership characteristics necessary for today's leaders in higher education. *Journal of International Education Research*, 8(4), 343-347.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership* (3rd ed.). New York, NY: Free Press.
- Bass, B. M. (1997). Does the transactional and transformational leadership paradigm transcend organizational and national boundaries? *American Psychologist*, 52, 130-139.
- Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. Thousand Oaks, CA: Sage.
- Bass, B. M., & Avolio, B. J. (2004). *Multifactor leadership questionnaire: Manual and sampler set*. Menlo Park, CA: Mind Garden.
- Bass, B. M., & Bass, R. (2008). *The Bass handbook of leadership: Theory, research and managerial applications* (4th ed.). New York, NY: Free Press.
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*. (2nd ed.). New York, NY: Taylor and Francis.

- Bass, B. M., & Yokochi, N. (1991). Charisma among senior executives and the special case of Japanese CEO's. *Consulting Psychology Bulletin, 1*, 31-38.
- Baumgartner, T. A., & Hensley, L. D. (2006). *Conducting and Reading Research in Health and Human Performance*. New York, NY: McGraw-Hill.
- Bennis, W. G. (2007). The challenges of leadership in the modern world-Introduction to the special issue. *American Psychologist, 62*, 2-5.
- Bensimon, E. (1993). New president's initial actions: Transactional and transformational leadership. *Journal of Higher Education Management, 8*(2), 5-17.
- Bolden, R., Petrov, G., & Gosling, J. (2007). *Developing collective leadership in higher education: Final report for the Leadership Foundation for Higher Education*. London: LFHE.
- Bolden, R., Petrov, G., & Gosling, J. (2008). Tensions in higher education leadership: Towards a multi-level model of leadership practice. *Higher Education Quarterly, 62*(4), 358-376.
- Bono, J.E., & Judge, T. A. (2004). Personality and transformational and transactional leadership: A meta-analysis. *Journal of Applied Psychology, 89*, 901-910.
- Bossert, S. T., Dwyer, D. C., Rowan, B., & Lee, G. V. (1982). The instructional management role of the principal. *Educational Administration Quarterly, 18*(3), 34-64.
- Bullock, B. (2011). *An examination between burnout and employee engagement of information technology professionals at a hospitality company*. Retrieved from Pro Quest Dissertations and Theses. (Publication No. 3482341.)

- Burke, R. J., & Mikkelsen, A. (2006). Burnout among Norwegian police officers: Potential antecedents and consequences. *International Journal of Stress Management*, 13(1), 64-83.
- Burns, J. M. (1978). *Leadership*. New York: Harper Collins.
- Casanave, C. P., & Hubbard, P. (1992). The writing assignments and writing problems of doctoral students: Faculty perceptions, pedagogical issues, and needed research. *English for specific purposes*, 11(1), 33-49.
- Cashwell, C. S., Shcherbakova, J., & Cashwell, T. H. (2003). Effect of client and counselor ethnicity on preference for counselor disclosure. *Journal of Counseling and Development*, 81, 196-201.
- Chan, D. W. (2006). Emotional intelligence and components of burnout among Chinese secondary school teachers in Hong Kong. *Teaching and Teacher Education*, 22(8), 1042-1054.
- Chandler, D. (2009). Pastoral burnout and the impact of personal spiritual renewal, rest-taking, and support system practices. *Pastoral Psychology*, 58(3), 273-287.
- Chandras, K. V., Eddy, J. P., & Spaulding, D. J. (2000). Counseling Asian-Americans: Implications for training. *Education*, 120(2), 239-246.
- Cohen, J. (1988). *Statistical power and analysis for the behavioral sciences (2nd ed.)*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Conger, J.A., & Kanungo, R.N. (1994). Charismatic leadership in organizations- perceived behavioral-attributes and their measurement. *Journal of Organizational Behavior*, 15, 439-452.

- Crowne, K.A. (2009). The relationships among social intelligence, emotional intelligence, and cultural intelligence. *Organization Management Journal*, 6, 148-163.
- Cultural Intelligence Center. (2013). Sample cultural intelligence sessions. Retrieved from <http://www.culturalq.com/schedules.html>
- De Hoogh, A. H. B., Den Hartog, D. N. (2009). Neuroticism and locus of control as moderators of the relationships of charismatic and autocratic leadership with burnout. *Journal of Applied Psychology*, 94(4), 1058-1067.
- Den Hartog, D. N., House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A., & Dorfman, P. W. (1999). Culture specific and cross-culturally generalizable implicit leadership theories: Are attributes of charismatic/ transformational leadership universally endorsed? *Leadership Quarterly*, 10(2), 219-256.
- Den Hartog, D. N., Van Muijen, J. J., Koopman, P. L. (1997). Transactional versus transformational leadership: An analysis of the MLQ. *Journal of Occupational and Organizational Psychology*, 70(1), 19-34.
- Deng, L., & Gibson, P. (2008). A qualitative evaluation on the role of cultural intelligence in cross-cultural leadership effectiveness. *International Journal of leadership studies*, 3(2), 181-197.
- Deng, L., & Gibson, P. (2009). Mapping and modeling the capacities that underlie effective cross-cultural leadership. *Cross Cultural Management*, 16(4), 347-366.
- Derue, D. S., Nahrgang, J. D., Wellman, N., & Humphrey, S. E. (2011). Trait and behavioral theories of leadership: An integration and meta-analysis test of their relative validity. *Personnel Psychology*, 64(1), 7-52.

- Downton, J. V. (1973). *Commitment and charisma in the revolutionary process*. New York, NY: Free Press.
- Dum dum, U. R. Lowe, K. B., & Avolio, B. J. (2002). A meta-analysis of transformational and transactional leadership correlates of effectiveness and satisfaction: An update and extension. In B. J. Avolio, & F. J. Yammarino (Eds.), *Transformational and charismatic leadership: The road ahead* (vol. 2, pp. 35-66). Oxford, U. K.: Elsevier Science.
- Eagly, A. H., Johannesen-Schmidt, M. C., & van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing women and men. *Psychological Bulletin*, *129*(4), 569-591. Doi:1037/0033-2909.129.4569
- Eagly, A. H., Karau, S. J., Makhijani, M. G. (1995). Gender and the effectiveness of leaders: A meta-analysis. *Psychological Bulletin*, *117*, 125-145.
- Earley, P. C. (2002). Redefining interactions across culture and organizations: Moving forward with cultural intelligence. *Research in organizational behavior*, *24*, 271-299.
- Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford, CA: Stanford Business Books.
- Earley, P. C., & Peterson, R. S. (2004). The elusive cultural chameleon: Cultural intelligence as a new approach to intercultural training for the global manager. *Academy of Management Learning and Education*, *3*(1), 100-115.
- Earley, P. C., Ang, S., & Tan, J. S. (2006). *CQ: Developing cultural intelligence at work*. Stanford, CA: Stanford University Press.

- Edmonds, R. (1979). Effective schools for the urban poor. *Educational Leadership*, 37, 15-24.
- Emery, C. R., & Barker, E. J. (2007). The effect of transactional and transformational leadership styles on the organizational commitment and job satisfaction of customer contact personnel. *Journal of Organizational Culture, Communications, and Conflict*, 11(1), 77-90.
- Farahbakhsh, S. (2009). A study of job burnout, sources and coping strategies in top managers of governmental organizations in province of Lorestan, Iran. *Australian Journal Of Basic & Applied Sciences*, 3(4), 4032-4039.
- Farber, B. A. (2000). Introduction: Understanding and treating burnout in a changing culture. *Psychotherapy in Practice*, 56(5), 589-594.
- Friedman, T. L. (2005). *The world is flat: A brief history of the twenty-first century*. New York, NY: Farrar, Straus, and Giroux.
- Fuller, J. B., Patterson, C., Hester, K., & Stringer, D. Y. (1996). A quantitative review of research on charismatic leadership. *Psychological Reports*, 78, 271-287.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Boston, MA: Pearson.
- Gentry, W. A., Katz, R. B., & McFeeters, B. B. (2009). The continual need for improvement to avoid derailment: A study of college and university administrators. *Higher Education Research and Development*, 28(3), 335-348.
- Gerits, L., Derksen, Jan J.L., Verbruggen, A.B., & Taylor, S.J. (2004). Emotional intelligence and adaptive success of nurses caring for people with mental retardation and severe behavior problems. *Mental Retardation*, 42(2), 106-121.

- Glowacki-Dudka, M., & Treff, M. (2011). Forming an institutional culture with multinational administrators and teachers at Effat College, Saudi Arabia. *Intercultural Education, 22*(2), 207-222.
- Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research, 57*(1), 35-43.
- Groves, K. S., & Feyerherm, A. E. (2011). Leader cultural intelligence in context: Testing the moderating effects of team cultural diversity on leader and team performance. *Group & Organizational Management, 36*(5), 535-566, doi:10.1177/1059601111415664
- Hallinger, P. (2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education, 33*(3), 329-351.
- Hallinger, P. (2005). Instructional leadership and the school principal: A passing fancy that refuses to fade away. *Leadership and Policy in Schools, 4*(3), 221-239.
- Hausman, J. A., & Wise, D. (1979). Massachusetts Institute of Technology attrition bias in experimental and panel data: The Gary income maintenance experiment. *Econometrica, 47*(2), 455-473.
- Hobfoll, S. & Freedy, J. (1993). Conservation of resources: A general stress theory applied to burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.). *Professional burnout: Recent developments in theory and research* (pp. 115-133). Philadelphia, PA: Taylor & Francis.
- Hodgkinson, H. (2002). Demographics and teacher education: An overview. *Journal of Teacher Education, 53*(2), 102-105.

- Hofstede, G. (1980). Motivation, leadership, and organizations: Do Americans' theories apply abroad? *Organizational Dynamics*, 9, 42-63.
- Horn, M. B., & Staker, H. (2011). *The rise of K-12 blended learning*. Retrieved from <http://www.innosightinstitute.org/innosight/wp-content/uploads/2011/01/The-Rise-of-K-12-Blended-Learning.pdf>
- Howell, D. C. (2008). *Fundamental statistics for the behavioral sciences*. Belmont, CA: Thomson.
- Huang, Y. C., & Liao, L. C. (2011). A college leader's transformational leadership. *Journal of management research*, 3(2), 1-22.
- Hussar, W. J. (2005). *Projections of education statistics to 2014* (NCES 2005-074). U. S. Department of Education, National Center for Education Statistics. Washington, D.C.: U. S. Government Printing Office.
- Hussar, W.J., and Bailey, T.M. (2011). Projections of Education Statistics to 2019 (NCES 2011-017). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- Idris, M. A., Dollard, M. F., & Winefield, A. H. (2011). The effect of globalization on employee psychological health and job satisfaction in Malaysian workplaces. *Journal of Occupational Health*, 53(6), 447-454.
- Ismail, A. M., Reza, R., & Mahdi, S. (2012). Analysis the relationship between cultural intelligence and transformational leadership: The case of managers at the trade office. *International Journal of Business and Social Science*, 3(14), 252-261.
- Jones, D., & Rudd, R. (2008). Transactional and transformational, or laissez-faire leadership: An assessment of college of agriculture academic program leaders' (Deans) leadership styles. *Journal of Agricultural Education*, 49(2), 88-97.

- Judge, T. A., Bono, J. E., Ilies, R. & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology, 87*, 765-780.
- Judge, T. A., Colbert, A. E., & Ilies, R. (2004). Intelligence and leadership: A quantitative review and test of theoretical propositions. *Journal of Applied Psychology, 89*, 542-552.
- Judge, T. A., Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology, 89*, 755-768.
- Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The forgotten ones? The validity of consideration and initiating structure in leadership research. *Journal of Applied Psychology, 89*, 36-51.
- Julsuwan, S., Boonchom, S., & Somjet, P. (2011). Transformational leadership of supporting-line administrators at public higher education institutions in Thailand. *European Journal of Social Sciences, 22*(3), 423-430.
- Kamler, B., & Thomson, P. (2006). *Helping doctoral students write: Pedagogies for supervision*. New York, NY: Routledge.
- Keung, E., & Rockinson-Szapkiw, A. (2013). The relationship between transformational leadership and cultural intelligence: A study of international school leaders. *Journal of Educational Administration, 51*(6), 836-854.
- Kezar, A., & Eckel, P. (2008). Advancing diversity agendas on campus: Examining transactional and transformational presidential leadership styles. *International Journal of Leadership in Education, 11*(4), 379-405.

- Kim, B. S. K., & Atkinson, D. R. (2002). Asian American client adherence to Asian cultural values, counselor expression of cultural values, counselor ethnicity, and career counseling process. *Journal of Counseling Psychology, 49*(1), 3-13.
- King, G., Honaker, J., Joseph, A., & Sheve, K. (1998). *Listwise deletion is evil: What to do about missing data in political science*. Working paper, Department of Government, Harvard University, Cambridge, MA.
- Kirby, P. C., Paradise, L. V., & King, M. I. (1992). Extraordinary leaders in education: Understanding transformational leadership. *The Journal of Educational Research, 85*(5), 303-311.
- Kokkinos, C. (2011). Job stressors, personality, and burnout in primary school teachers. *British Journal of Educational Psychology, 77*(1), 229-243.
- Koustelios, A., & Tsigilis, N. (2005). The relationship between burnout and job satisfaction among physical education teachers: a multivariate approach. *European Physical Education Review, 11*, 189-203.
- Kouzes, J., & Posner, B. (2007). *The leadership challenge* (4th ed.). San Francisco: Jossey-Bass.
- Krejcie, R. V., & Margan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*, 607-610.
- Kulkarni, B. K. (2006). Burnout. *Indian Journal of Occupational and Environmental Medicine, 10*, 3-4.
- Lee, A. (2008). How are doctoral students supervised? Concepts of doctoral research supervision. *Studies in Higher Education, 33*(3), 267-281.

- Leithwood, K., & Jantzi, D. (2000). The effects of transformational leadership on organizational conditions and student engagement with school. *Journal of Educational Administration*, 38(2), 112-126.
- Leithwood, K., & Jantzi, D. (2005). A review of transformational school leadership research 1996-2005. *Leadership and Policy in Schools*, 4(3), 177-199.
- Leithwood, K., & Poplin, M. S. (1992). The move toward transformational leadership. *Educational Leadership*, 49(5), 8-12.
- Leithwood, K., Seashore Louis, K., Anderson, S., & Wahlstrom. (2004). *How leadership influences student learning*. The Wallace Foundation. Retrieved from <http://www.sisd.net/cms/lib/TX01001452/Centricity/Domain/33/ReviewofResearch-LearningFromLeadership.pdf>
- Leong, L. Y. C, & Fischer, R. (2011). Is transformational leadership universal? A meta-analytical investigation of multifactor leadership questionnaire means across cultures. *Journal of Leadership & Organizational Studies*, 18(2), 164-174.
- Levasseur, R. (2006). *Student to scholar: The guide for doctoral students*. St. Augustine, FL: Mindfire Press.
- Livermore, D. (2009). *Leading with cultural Intelligence. The new secret to success*. New York: AMACOM.
- Loomis, S., & Rodriguez, J. (2009). Institutional change and higher education. *Higher Education*, 58(4), 475-489.
- Lowe, K .B., Kroeck, G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review. *Leadership Quarterly*, 1, 385-426.

- Mannor, M. J. (2008). Top executives and global leadership: At the intersection of cultural intelligence and strategic leadership theory. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement and applications* (pp. 71-90). Armonk, NY: M. E. Sharpe.
- Marchal, B. & Kegelis, G. (2003). Health workforce imbalances in times of globalization: Brain drain or professional mobility? *The International Journal of Health Planning and Management*, 18(S1), S89-S101.
- Marks, H. M., & Printy, S. M. (2003). Principal leadership and school performance: An integration of transformational and instructional leadership. *Educational Administration Quarterly*, 39(3), 370-397.
- Maslach, C. (1976). Burned-out. *Human Behavior*, 5(9), 16-22.
- Maslach, C. (2003a). *Burnout: The cost of caring*. Los Altos, CA: ISHK.
- Maslach, C. (2003b). Job burnout: New directions in research and intervention. *Current Directions in Psychological Science*, 12, 189-192.
- Maslach, C., & Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2, 99-113.
- Maslach, C., & Leiter, M. P. (1997). *The truth about burnout*. (3rd ed.). San Francisco, CA: Jossey-Bass.
- Maslach, C., Jackson, S.E., Leiter, M.P. (1996). *Maslach burnout inventory manual* (3rd ed.). Menlo CA: Mind Garden, Inc.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- Mavani, P.S. (2007). Restructuring medical education. *Indian Journal of Medical Ethics*, 4(2), 62-63.

- Melamed, S., Shirom, A. Toker, S., Berliner, S., & Shapira, I. (2006). Burnout and risk of cardiovascular disease: Evidence, possible casual paths, and promising research directions. *Psychological Bulletin*, *132*, 327-353.
- Mendes, E.J. (2002). The relationship between emotional intelligence and occupational burnout in secondary school teachers (Doctoral Dissertation, Walden University).
- Moolenaar, N. M., Daly, A. J., & Slegers, P. J. C. (2010). Occupying the principal position: Examining relationships between transformational leadership, social network position, and schools' innovative climate. *Educational Administration Quarterly*, *46*(5), 623-670.
- Mumford, T. V. Campion, M. A., & Morgeson, F. P. (2007). The leadership skills strataplex: Leadership skill requirements across organizational levels. *Leadership Quarterly*, *18*, 154-166.
- Muresnsky, C. L. (2000). *The relationship between emotional intelligence, personality, critical thinking ability, and organizational leadership performance at upper levels of management*. (Doctoral Dissertation). Retrieved from Pro Quest Dissertations and Theses. (Publication No. 304670322).
- National Council for Accreditation of Teacher Education. Retrieved from, <http://www.ncate.org>.
- Nayyar, D. (2008). Globalization: What does it mean for higher education? In *The Globalization of Higher Education*, Luc E. Weber & James J. Duderstadt (eds), pp. 3-14.
- Ng, K. Y., & Earley, P. C. (2006). Culture + Intelligence: Old constructs, new frontiers. *Group & Organization Management*, *31*(1), 4-19.

- Ng, K. Y., Van Dyne, L., & Ang, S. (2009a). Developing global leaders: The role of international experience and cultural intelligence. In *Advances in Global Leadership*, W. H. Mobley, Y. Wang, & M. Li (eds), Bingley, UK, Emerald Group Publishing, pp. 225-226.
- Ng, K. Y., Van Dyne, L., & Ang, S. (2009b). From experience to experiential learning: Cultural intelligence as a learning capability for global leader development. *Academy of Management Learning & Education*, 8(4), 511-526.
- Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS*. New York, NY: McGraw-Hill.
- Pallas, A. M. (2001). Preparing education doctoral students for epistemological diversity. *Educational Researcher*, 30(5), 6-11.
- Pallas, A., Natriello, G., & McDill, E. (1989). The changing nature of the disadvantaged population: Current dimensions and future trends. *Educational Researcher*, 18(5), 16-22.
- Parkman, A., & Beard, R. (2008). Succession planning and the imposter phenomenon in higher education. *College and University Professional Association for Human Resources*, Fall/ Winter, 29-36.
- Patrick, P.K.S. (2006a). Exploration of the impact of the counselor's cultural and diversity background on stress coping. *Vistas Online*. Retrieved from www.counseling.org.
- Patrick, P. K. S. (2006b). Stress induced challenges to the counselor role: Burnout, compassion fatigue and vicarious traumatization. In P. K. S. Patrick (Ed.). *Contemporary Issues In Counseling*.
- Raiger, J. (2005). Applying a cultural lens to the concept of burnout. *Journal of Transcultural Nursing*, 16, 71-76.

- Robinson, V. M. J., Lloyd, C. A., & Rowe, K. J. (2008). The impact of leadership on student outcomes: An analysis of the differential effects of leadership types. *Educational Administration Quarterly*, 44(5), 635-674.
- Rockstuhl, T., Seiler, S., Ang, S., Van Dyne, L., & Annen, H. (2011). Beyond general intelligence (IQ) and emotional intelligence (EQ): The role of cultural intelligence (CQ) on cross-border leadership effectiveness in a globalized world. *Journal of Social Issues*, 67(4), 825-840.
- Rothman, S. & Barkhuizen, N. (2008). Burnout of academic staff in South African higher education institutions. *South African Journal of Higher Education*, 22(2), 439-456.
- Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International*, 14(3), 203-220.
- Schwartz, S. H. (1994). Beyond individualism, collectivism: New cultural dimensions of values. In U. Kim, H.C. Triandis, C. Kagitcibasi, S.C. Choi, & G. Yoon (Eds.). *Individualism & collectivism: Theory, method, and applications* (pp.85-119). Thousand Oaks, CA: Sage.
- Schwartz, S. H. (1999). A theory of cultural values and some implications for work. *Applied Psychology: An international review*, 48, 23-47.
- Seltzer, J., Numerof, R. E., & Bass, B. M. (1989). Transformational leadership: Is it a source of more burnout and stress? *Journal of Health and Human Resources Administration*, 12, 175-185.
- Southern Association of Colleges and Schools. Retrieved from, www.sacs.org.
- Sternberg, R. J. (2006). The Rainbow Project: Enhancing the SAT through assessments of analytical, practical, and creative skills. *Intelligence*, 34, 321-350.

- Sternberg, R. J. (2012). College admissions beyond conventional testing. *Chance*. Retrieved from http://www.changemag.org/Archives/Back%20Issues/2012/September-October%202012/admissions_full.html
- Stordeur, S., D'hoore, W., & Vandenberghe, C. (2001). Leadership, organizational stress, and emotional exhaustion among hospital nursing staff. *Journal of Advanced Nursing*, 35(4), 533-542.
- Stromquist, N. P. (2002). *Education in a globalized world: The connectivity of economic power*. Oxford, UK: Rowman and Littlefield.
- Suutari, V. (2002). Global leader development: An emerging research agenda. *Career Development International*, 7(4), 218-33.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics (5th ed.)*. Boston: Pearson.
- Tatar, M. (2012). School counselors working with immigrant pupils: changes in their approaches after 10 years. *British Journal of Guidance and Counseling*, 40(5), 577-592.
- Tatar, M. & Horenczyk, G. (2003). Diversity-related burnout among teachers. *Teaching and Teacher Education*, 19(4), 397-408.
- Templer, K., Tay, C., & Chandrasekar, N. A. (2006). Motivational cultural intelligence, realistic job preview, realistic living conditions preview and cross-cultural adjustment. *Group and Organization Management*, 31(3), 154-171.
- Terenzini, P., Springer, L., Pascarella, E. T., & Nora, A. (1995). Influences affecting the development of students' critical thinking skills. *Research in Higher Education*, 36(1), 23-39.

- Thomas, D. C., & Inkson, K. (2003). *People skills for global business: Cultural intelligence*. San Francisco: Berrett-Koehler.
- Tishman, F. M., Van Looy, S., & Bruyere, S. M. (2012). *Employer strategies for responding to an aging workforce*. Retrieved from http://www.dol.gov/odep/pdf/NTAR_Employer_Strategies_Report.pdf
- Vaezi, M. A. D., & Ghorouneh, D. (2010). Culture, globalization, and higher education. *Barg-E Farhang, 21*, 50-62.
- Valentine, J., & Prater, M. (2011). Instructional, transformational, and managerial leadership and student achievement: High school principals make a difference. *NAASP Bulletin, 95*(1), 5-30.
- Van Dyne, L., Ang, S., & Koh, C. (2008). Development and validation of the CQS. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence. Theory, measurement and applications* (pp. 16–38). New York: Sharpe.
- Ward, C., & Fischer, R. (2008). Personality and cultural intelligence. A test of the mediation hypothesis. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence. Theory, measurement and applications* (pp. 159–173). New York: Sharpe.
- Ward, C., Fischer, R., Lam, F. S. Z., & Hall, L. (2009). Convergent, discriminant and incremental validity of a self-report measure of cultural intelligence. *Educational and Psychological Measurement, 69*, 85–105.
- Wee, D., & Myers, D. (2002). Response of mental health workers following disaster. The Oklahoma City Bombing. In C.R. Figley (Ed.). *Treating compassion fatigue* (pp. 57-83). New York: Brunner/Rutledge.

Appendix A IRB Approval



The Graduate School at Liberty University

January 15, 2013

Deanna Michelle Stokes
IRB Exemption 1441011513: Cultural Intelligence, Transformational Leadership, and Burnout in
Education Doctoral Students

Dear Deanna,

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

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

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

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

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

Sincerely,

Fernando Garzon, Psy.D.
Professor, IRB Chair
Counseling

(434) 592-4054



Liberty University | Training Champions for Christ since 1971

Appendix B Initial Email to Participants

Contact One: Initial Email

Subject: Educators Survey

Dear [Doctoral Student],

I am writing to ask your help in advancing the research on cultural intelligence, transformational leadership, and burnout in education doctoral students. You were selected as a possible participant because of your position in leadership as an educator and doctoral student who is currently or will possibly one day work in educational leadership. This information will be helpful in the selection and training of effective leaders.

The survey contains 87 questions and takes approximately 20 – 30 minutes to complete. Would you please fill out the survey in its entirety? When answering the burnout questions, if you are not a teacher or administrator or an individual who works closely with students, please answer the questions based on your dealings with your colleagues.

All answers are completely anonymous. This survey is voluntary and is part of my doctoral dissertation. Participants may withdraw at any time without penalty. This study is being conducted under the guidance and supervision of Dr. Amanda Rockinson-Szapkiw, aszapkiw@liberty.edu.

To participate, please go to:

www.mindgarden.com/survey/11360

As a small token of my appreciation, the 100th, 200th, and 300th participants who respond and complete the survey in its entirety, will receive a \$50 USD gift certificate from a vendor of their choice.

If you have any questions or comments, please feel free to contact me at dmstokes@liberty.edu.

Thank you for your time and consideration,

D. Michelle Stokes
dmstokes@liberty.edu

Doctoral Candidate
Liberty University
School of Education

Appendix C Second Email to Participants

Contact Two: Second Email

Subject: RE: Educators Survey

Dear [Doctoral Student],

Three weeks ago a questionnaire was emailed to you seeking insight into cultural intelligence, transformational leadership, and burnout in education doctoral students. If you have already completed the survey in its entirety, thank you. If you have not, please do so promptly. The anonymous survey contains 87 questions and takes approximately 20 – 30 minutes to complete. Would you kindly complete the online survey? Before doing so, please read the informed consent document. The informed consent document will be the first page of the survey. Once you click on the login link, the informed consent will be displayed on the screen before you go forward with the survey. Please ask any questions that you may have about the research before participating. To participate, please click on the below link or copy and paste it into your browser. Also, when you get to the end of the survey, please press “ALL DONE” to complete it.

To participate, please go to:

www.mindgarden.com/survey/11360

Thank you,

D. Michelle Stokes
dmstokes@liberty.edu

Doctoral Candidate
Liberty University
School of Education

Appendix D Informed Consent Document

Dear Participant

You are invited to be part of a research study that is examining cultural intelligence, transformational leadership, and burnout in education doctoral students. You were selected as a possible participant because you may fit the criteria for this study (i.e. a doctoral student who is 18 or older) and you are currently enrolled in the Ed.D, or Ph.D. program of your university. Your participation in a research study being conducted will be helpful to increase awareness and understanding of factors related to the relationship between cultural intelligence and transformational leadership and burnout. This informed consent outlines the facts, implications, and consequences of the research study. Upon reading, understanding, and signing this document, you are giving consent to participate in the research study.

Researcher: D. Michelle Stokes

Dissertation Committee: Amanda Rockinson-Szapkiw, LPC, NCC, Ed.D., Liberty University Emerson Keung, Ed.D., Liberty University Charles Smith, Ph.D, Liberty University

Inquiries: The researcher will gladly answer any inquiries regarding the purpose and procedures of the present study. Please send all inquiries via email to Amanda Szapkiw at aszapkiw@liberty.edu.

Procedures: You are being asked to complete three online surveys. The length of time needed to complete the online assessments is estimated at 30- 40 minutes. Participation is voluntary. The researcher will take precautions to protect participant identity by not using the names of participants or the specific course number in her results or writing. The researcher will use the assessment results for publications and presentation purposes.

Untried Procedure: The researchers have developed the demographic survey specifically for this study. It has not been previously utilized for research. It has not been validated nor reliability tested.

Participant Risks: As a result of participating in this study, awareness of cultural intelligence, leadership style, and burnout may occur. The study may involve additional risks to the participant, which are related to increased self-awareness. You may want to seek assistance in managing your stress. If you find this to be the case, please contact the student advocacy office via e-mail: studentadvocate@liberty.edu or via phone: 434.582.7200 , they will help connect you with needed services.

Participant Benefits: Participants may benefit from increased understanding of cultural intelligence, leadership style, and burnout related to work. The potential publication of the findings of this study may prove beneficial to students, faculty, and secondary/ higher education administrators as they seek to proactively improve the cultural intelligence and leadership style of their students, faculty, staff, and administration.

Compensation: Participants may receive a small (\$50) financial compensation for participation in this study as an incentive to participate. Before receiving the stipend, all parts of the survey must be completed.

Confidentiality: The researchers will take precautions to protect participant identity by not linking survey information to participant identity. The researcher will not identify participants by name or identify the course number in any of their writings or presentations; however, since this study is limited to students in a limited number of universities (2), the identities of the participants could be inferred by individuals familiar with the school, the individual, and the presented article. The survey will be located on the Mind Garden, Inc. website or SharePoint. Data is stored on the server and kept in a password-protected database and are not shared with anyone. It is conceivable that engineering staff at the web hosting company may need to access the database for maintenance reasons. The information will be stored on this site for the duration of three years and will then be deleted by the researchers. The researchers will store all research documentation on a password-protected computer database on their university computers for the duration of three years and will then delete the documentation from the computer database. Any hard copies of the data will be stored in a locked filing cabinet and shredded at the end of three years.

Voluntary Participation: Participation in this study is voluntary and you may withdraw at any time without penalty.

Statement of Consent: Liberty University, their agents, trustees, administrators, faculty, and staff are released from all claims, damages, or suits, not limited to those based upon or related to any adverse effect upon you which may arise during or develop in the future as a result of my participation in this research. (Please understand that this release of liability is binding upon you, your heirs, executors, administrators, personal representatives, and anyone else who might make a claim through or under you).

Disclosure: Clicking below I acknowledge the following: I have read and understand the description of the study and contents of this document. I have had an opportunity to ask questions and have all my questions answered. I hereby acknowledge the above and give my voluntary consent for participation in this study. I understand that I must be 18 years or older to sign this informed consent and participate in this study. I understand that should I have any questions about this research and its conduct, I should contact one of the researchers listed above. If I have any questions about rights or this form, I should call the current IRB chair for Liberty University, Dr. Fernando Garzon, Liberty University, IRB Review, 1971 University Blvd., Lynchburg, VA 24502.

D. Michelle Stokes
Ed.D. Candidate
Liberty University
School of Education

Appendix E Demographic Questions

Demographic Information:

Please indicate your gender:

- Male
- Female

Please indicate your age range:

- Under 20
- 20-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70-79
- Above 80

Please indicate your ethnicity:

- African-American
- American Indian
- Asian
- Caucasian
- Hispanic
- Other

Please indicate your years as a teacher:

- 1-5
- 5-10
- 10-20
- 20+

Please indicate your current position and level (e.g. high school principal):

Please indicate your years as an administrator:

- None
- 1-5
- 5-10
- 10-20
- 20+

Please indicate your religious affiliation:

- Baptist
- Methodist
- Catholic
- Assemblies of God
- Episcopal
- Other

What type of doctoral program are you currently enrolled in?:

- Online
- Traditional face-to-face
- Blended