The Trait Emotional Intelligence of College and University Presidents: A Foundational Descriptive Quantitative Study

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Dedication

This dissertation is dedicated to:

My grandparents
Grace and Jack Copeland and Lola and Edwin Halbgewachs,
who I feel would have enthusiastically supported my academic endeavors
and been proud of this accomplishment.

My parents Dr. Nancy and Ronald Halbgewachs,
for instilling in me a love of school and learning
through your respective academic achievements,
and for listening, encouraging, and believing in me.

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for loving and giving me the space to complete
two master's degrees and a doctoral degree,
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and the many BLTs during the past month.

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this doctoral degree with you by my side,
I have instilled in you the importance of
believing in yourself and stretching to achieve your dreams.

I love you.

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Abstract of the Dissertation

The Trait Emotional Intelligence of College and University Presidents:
A Foundational Descriptive Quantitative Study

Higher education is an immense sector with more than 20.4 million students, 4 million employees including 1.6 million faculty members, and estimated aggregate expenditures exceeding $400 billion not including the for-profit institutions. Colleges and universities are among our nation's most important social institutions, knowledge generators, and economic drivers, and they have a vital role in the shaping of our global world. There are intense external and internal factors, and many stakeholders with diverse and often competing perspectives, with which college and university presidents must effectively engage in their critical leadership role.

This research identified and described the trait emotional intelligence of college and university presidents. The study was grounded in the functionalist paradigm. Core components of the theoretical framework were the trait emotional intelligence theory (Petrides & Furnham) and the concept of effective leadership (Kouzes & Posner). Using a census strategy and survey research design, 300 presidents participated and completed the TEIQue-SF. Key findings and conclusions included: (1) the majority of college and university presidents have high well-being, self-control, emotionality, and sociability factor and global trait emotional intelligence, (2) the majority of college and university presidents have higher emotional intelligence than the general population, (3) the majority of college and university presidents demonstrate leadership effectiveness, and (4) there are opportunities to enhance trait emotional intelligence in a subgroup of the

college and university presidents, thus enhancing the leadership effectiveness of those presidents.

The new empirical knowledge about the emotional intelligence of college and university presidents provides a foundational springboard for future research to elucidate and expand knowledge in the areas of authentic leadership, charismatic leadership, the full range of leadership (transformational/transactional), leadership effectiveness, and higher education. Also, this new knowledge may be helpful to learning more about how to work with loosely coupled systems, change organizational culture, identify and deal with perceived resistance to change, and leadership development (Burke, 2011). Findings of this study may be beneficial to college and university presidents, emerging and incoming college and university presidents, boards of trustees/regents, search firms, higher education associations, and consultants.

The study achieved a large study sample. Strategies contributing to the successful recruitment of the large sample are described and are transferable to other studies—especially dissertation research—and other study populations.

Key words: emotional intelligence, TEIQue, college presidents, university presidents, leadership, authentic leadership, charismatic leadership, full range of leadership, transformational leadership, leadership effectiveness, loosely coupled systems, higher education

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Chapter 1: Introduction

The purpose of this descriptive quantitative study was to identify and describe the trait emotional intelligence of college and university presidents. Emotional intelligence offers an energy that "is a primary source of influence and power" (Cooper & Sawaf, 1997, p. xxvii) and is related to and predictive of effective leadership (e.g. Amram, 2009; Bar-On, 1997; Dulewicz &Higgs, 2003; Golden, 2015; Goleman, 1995/2006; Goleman, Boyatzis, & McKee, 2002; Higgs, 2002; May-Vollmar, 2017; Rosete, 2007; Rosete & Ciarrochi, 2005; Yukl, 2013). Being a university president is perhaps one of the most challenging leadership roles (Birnbaum, 1989; Gee & Weaver Hart, 2105; Ruben, De Lisi, & Gigliotti, 2017; Ruscio, 2017) and "now more than ever, leading an institution of higher education is a difficult and complicated endeavor" (Gagliardi, Espinosa, Turk, & Taylor, 2017, p. viii; Jaschik & Lederman, 2017; Scott & Fullan, 2009). According to Borenstein (2015), "emotional intelligence is especially important in higher education leadership because the culture of academe makes collaboration, reciprocity, and trust behavioral priorities" (p. 2). Further, Gee and Weaver Hart (2015) articulated that building and nurturing relations is indisputably the "single most important lesson" (p. 1) for new college and university presidents—and emotional intelligence is key to doing this well (Anand & Dysuria, 2010; Barbuto & Bugenhagen, 2009; Barnes, 2015; Bar-On, 2000; Cooper & Sawaf, 1997; Goleman, 1995/2006; Johnson, Aiken, & Steggerda, 2004; Petrides, 2017; Petrides & Furnham, 2000b; Salovey & Mayer, 1990).

Overview

To provide context for this study, this chapter begins with a brief overview of the current higher education environment and the unique role of college of and university

presidents. Second, the problem statement is presented. Third, the statement of purpose, research questions, and hypotheses are put forward. Fourth, the potential significance of the study is discussed. Fifth, the conceptual framework is identified, followed by the conceptual underpinnings and theoretical foundations of the study. Next, the methodology used to implement the study is summarized and the delimitations and limitations of the study are addressed. Finally, the chapter concludes with definitions of key terms used in this document, followed by a chapter summary.

Context: Higher Education Environment and the Role of Presidents

Higher education in the United States is an immense sector—with more than 20.4 million students (U.S. Department of Education, 2017), about 4 million employees including more than 1.6 million faculty members (HigherEdJobs, 2017; U.S. Department of Education, 2017), and estimated aggregate annual expenditures exceed $400 billion (Bok, 2013, p. 9) not including the for-profit institutions. Further, colleges and universities are among our nation's most important social institutions, knowledge generators, and economic drivers (Bok, 2013; Fullan & Scott, 2009; Lane, 2017; Thorp & Goldstein, 2010).

Colleges and universities are highly complex institutions and are facing intense external and internal pressures (Bok, 2013; Gagliardi, Espinosa, Turk, & Taylor, 2017; Jaschik & Lederman, 2017; Ruben, De Lisi, & Gigliotti, 2017). The perspectives of college and university presidents offer valuable insights about the higher education environment. Two recent studies offer this information: (a) the American Council on Education's *American College President Study 2017* (Gagliardi et al., 2017), and (b) the

2017 Survey of College and University Presidents, conducted by published by Gallup and *Inside Higher Ed* (Jaschik & Lederman, 2017).

American higher education is reaching a serious juncture (Bok, 2013; Gagliardi, Espinosa, Turk, & Taylor, 2017; Jaschik & Lederman, 2017; Ruben, De Lisi, & Gigliotti, 2017). Public support is stagnant, funding is constrained, and tenacious equity gaps exist (Gagliardi et al., 2017; Jaschik & Lederman, 2017; Ruben, et al., 2017). Only twelve percent (12%) of presidents believe most Americans understand the purpose of higher education (Jaschik & Lederman, 2017). Misperceptions about the mission, campus environment, and value of a college and graduate education are deterrents for prospective students and families, donors, and policymakers (Jaschik & Lederman, 2017). Colleges and universities are being pressed to reassess their value propositions, pursue diversity and inclusion across the enterprise, develop entrepreneurial innovative resource strategies, better manage enrollment, further implement data-informed decision-making that prioritizes student success, and respond to data-enabled constituents (Gagliardi et al., 2017; Jaschik & Lederman, 2017).

Regarding the financial sustainability of colleges and universities, sixty percent (60%) of presidents are confident their institution will be financially sustainable for the next five years, and slightly more than half (52%) are confident about their institution's financial health for the next ten (10) years (Jaschik & Lederman, 2017). Presidents anticipate the already constrained state and federal funding will decline in the coming years; and fundraising and financial management—which are already their two most time-consuming activities—will require even more time in the future (Gagliardi et al., 2017).

The American higher education environment is highly competitive. Having sufficient funding to provide financial aid to as many low-income students as the institutions would like to have is a major enrollment concern for presidents (Jaschik & Lederman, 2017). Also, having a diverse student body and faculty, attracting talented students who can succeed, and attracting top faculty are additional priorities affected by the competitive environment (Gagliardi et al., 2017; Jaschik & Lederman, 2017). Other top challenges and frustrations identified by presidents are: (a) faculty resistance to change, (b) campus politics, and (c) difficulty cultivating leadership in others (Gagliardi et al., 2017; Jaschik & Lederman, 2017).

Colleges and universities have long been exemplars of loosely coupled systems (Burke, 2011; Orton &Weick, 1996; Weick, 1976) and also known as prototypic organized anarchies (Cohen & March, 1976; Dennis, 2016; Ruscio, 2017). Most colleges and universities have multiple missions, and "while the missions often overlap and reinforce each other, they can also collide" (Ruben et al., 2017, e-book location 190). Individuals and groups within an institution often have vastly different and conflicting perspectives, values, and expectations due to the complexity of the multiple structures, shared governance, highly interrelated groups of people, and myriad organizational cultures within the institution (Burke, 2011; Chaffee & Tierney, 1988; Gee & Weaver Hart, 2015; Ruben et al., 2017; Ruscio, 2017).

Additionally, college and university presidents are entrusted with peoples' lives. As Johnson Bowles (2013) put it:

> A college campus is a town, a community of people. Like any town, any place, something bad happens on a college campus every single year.

> Always. …. How a president deals with a crisis—how swiftly, how professionally, how ethically and transparently, how compassionately—is crucial" (p. 2).

Further, presidents' effective routine and crisis communications are vital in our world of social media and a constant news cycle (Johnson Bowles, 2013; Wollman, 2015). Following are four examples of major incidents at colleges and universities reported in the national news over the course of just a few days during one week in October 2017:

1. The arrest of ten Louisiana State University students following a fraternity pledge's death was reported by *The New York Times*, *USA Today*, *CNN*, and *The Chronicle of Higher Education*, among other media outlets (Kaufman & Burnside, 2017; Rossman, 2017; Saul, 2017; Zamudio-Suaréz, 2017).
2. *Fortune*, *Business Insider*, *NPR*, and *The Chronicle of Higher Education*, among other outlets, reported about the major athletics and academic fraud scandal at University of North Carolina at Chapel Hill (Chappell, 2017; Jacobs & Manfred, 2017; Morris, 2017; Thomason, 2017).
3. The departures of a vice president and the medical school dean at the University of Southern California amid sexual harassment investigations were covered by *The Los Angeles Times*, *DailyMail.com*, *New York Post,* and other print and television outlets (Farberov, 2017; Parvini, Ryan, & Pringle, 2017; Varma, 2017).
4. The fatal shooting of a Texas Tech police officer allegedly by a student was covered by *CNN*, *FOX News*, and *The Chronicle of Higher Education* (Grinberg & Ellis, 2017; Harris, 2017; Watkins, 2017).

These four situations, from just one week, are a mere sampling of the kinds of major incidents occurring at colleges and universities with which presidents are engaged. Serving as a college or university president "is a 24/7 job like no other. A president is constantly 'on'" (Johnson Bowles, 2013, p. 1). On average, presidents serve in their post for six to seven years. Looking to the future, more than half of presidents expect to leave their post in five years or less (Gagliardi et al., 2017; Jaschik & Lederman, 2017).

"Still, the environment is promising…especially for those presidents who see this as an opportunity to transform their institutions in ways that reflect the changing times and the changing face of our nation" (Gagliardi et al., 2017, p. 60). Digital technology is innovating higher education. This is occurring in many ways—from instructional delivery and assessment of learning, to research, administrative operations, communications, entrepreneurial collaborations, and beyond (Bok, 2013; Ruben et al., 2017).

Identifying and implementing ways to help students who are food insecure or homeless are also transforming the higher education experience for many students. In 2016, a national report found that nearly 25% of colleges students were homeless or food insecure (Dubick, Matthews, & Cady, 2016; Kovacs, 2016). Although student hunger is not a new situation, it is finally garnering the formal attention of college and university leadership required to make a difference. Colleges and universities are "launching food banks, shelter programs, and emergency assistance funds for students who have short-term challenges with food or house" (Rudgers & Peterson, 2017, p. 2).

Another major opportunity for colleges and universities is transforming the campus climate. Campus climate has long been issue, and as part of the changing times

in our nation and in an effort to help affect societal change nationally, transformational efforts are underway at many college and university campuses. Diversity, inclusion, racism, sexual misconduct, and immigration are key areas being addressed and are opportunities for transformation (e.g. Brown, 2017; Rudgers & Peterson, 2017; Thomason, 2018).

Additionally, American higher education (especially the research universities) has a vital role in helping to reshape our global world (Thorp & Goldstein, 2010). Big ideas are surfaced, explored, and then translated into reality by colleges and universities. "Attacking the world's biggest problems—problems such as hunger, the shortage of water, climate change, and inequality—will encourage a multitude of large and small innovations" (Thorp & Goldstein, p. 2) and are areas in which in which American colleges and universities can help lead the way. For example, integration of sustainability initiatives into campus operations, education, and research is effectively reducing the carbon footprints of higher education institutions and "provides leadership-by-example for the rest of society to move towards sustainability" (Dyer & Dyer, 2017, p. 111).

College and university "leadership is more important than ever" (Ruben, De Lisi, & Gigliotti, 2017, p. 31; Gagliardi, Espinosa, Turk, & Taylor, 2017; Jaschik & Lederman, 2017). Presidents have a vital role in ensuring their institution's success. "Deepening the understanding of these exceptional leaders…has only grown in importance" (Gagliardi et al., 2017 p. viii).

Statement of the Problem

The scholarly body of theoretical literature and empirical knowledge about emotional intelligence and leadership continues to grow. Emotional intelligence has been

argued and found to be connected to and predictive of effective leadership (e.g. Amram, 2009; George, 2000; Golden, 2015; Goleman,1995/2006; Goleman, Boyatzis, & McKee, 2002; Dulewicz & Higgs, 2003; Mayer & Salovey, 1995; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003a; Rosete, 2007; Rosete & Ciarrochi, 2005; May-Vollmar, 2017; Yukl, 2013). The correlation of emotional intelligence to effective leadership has been evinced by studies involving leaders in many occupational domains, such as executives from a large public service organization (Rosete & Ciarrochi, 2005), board members (Dulewicz &Higgs, 2003), chief executive officers primarily in northern California (Amram, 2009), executives across North America (Ruderman & Bar-On, 2003), and public school administrators in southern California May-Vollmar (2017), among others.

Unfortunately, there has been a paucity of research and information in the scholarly literature about the emotional intelligence and leadership of college and university presidents. Given the immense enterprise that is higher education and "critical role" (Gagliardi et al., 2017, viii) of the presidents who lead the highly complex college and universities that comprise the higher education sector, that these leaders have been insufficiently studied poses a problem. The theory and practice about emotional intelligence and leadership effectiveness have not been informed or shaped by knowledge about this sector and population of leaders. Further, as Zeidner, Matthews, and Roberts (2009) asserted, "it is important to understand how emotional intelligence might be distributed across different occupational groups (p. 20) and "it is unlikely that emotional intelligence is distributed randomly" (p. 20). This study begins to address this need.

Additionally, Burke (2011) called for the need "to know much more about how to: (a) work with loosely coupled systems, (b) change the culture of an organization, (c) identify and deal with *perceived* [italics in original] resistance to change more effectively, and (d) get leadership development right" (p. 146). This study is pertinent to responding to this call for new knowledge in several ways. First, colleges and universities are considered exemplars of loosely coupled systems (Burke, 2011; Orton & Weick, 1990; Weick, 1976). Second, "emotional intelligence is a critical component of leadership" (Prati, Douglas, Ferris, Ammeter, Buckley, 2003a, p. 27; Goleman, 1995/2006; 1998a, 1998b, George, 2000; Salovey & Mayer, 1990) and leadership is inextricably linked to organizational culture (Schein, 1985/2010; Yukl, 1998/2013). Third, core functions of leadership are influencing and producing adaptive and constructive change (Bennis & Nanus, 1985; Kotter, 1990; Northouse, 1997/2012; Yukl, 1998/2013). Fourth, emotional intelligence may inform how to identify and deal more effectively with resistance to change since emotional intelligence is about the capacity to accurately perceive, appraise, and manage others' emotions and to better communicate (Bar-On, 1997, 2000; Goleman, 1995/2006, 1998a, 1998b; Mayer & Salovey, 1995; Petrides & Furnham, 2000b, 2001, 2003). Additionally, it is important for leadership development to address emotional intelligence (Caruso & Wolfe, 2004; Nelson & Low, 2011; Rude, 2013). Further, understanding and describing the trait emotional intelligence of the college and university president population may inform and shape leadership development for emerging, incoming, and existing presidents in these loosely coupled systems.

Hence, this study laid a necessary foundation that has implications for theory, practice, and future research. This foundational information will help to address the

following needs: the insufficient study of the emotional intelligence of college and university presidents so that knowledge about this important leadership group may inform and shape emotional intelligence theory and practice, and the need to know more about working with loosely coupled systems, changing organizational culture, identifying and dealing with perceived resistance to change, and leadership development (Burke, 2011). Presented in the next section are the specific research questions this study answered to lay a foundational spring board that can help address the identified needs.

Purpose and Research Questions

The purpose of this descriptive quantitative study was to identify and describe the emotional intelligence of college and university presidents. Specifically, the study identified and described the trait emotional intelligence of Carnegie-classified college and university presidents at a single point in time and examined the relationship between the traits of the participating college and university presidents and those of the general population (normative sample from Petrides, 2009b). The emotional intelligence traits examined were from the Trait Emotional Questionnaire-Short Form (TEIQue-SF), and included the measures of the well-being, self-control, emotionality, and sociability factors as well as trait emotional intelligence.

The central research question of the study was: What are the emotional intelligence traits of college and university presidents? Operationally, this inquiry addressed the following fundamental questions:

1. What are the trait emotional intelligence scores of college and university presidents, as measured by the TEIQue-SF? This includes the scores for the

well-being, self-control, emotionality, and sociability trait emotional intelligence factors and global trait emotional intelligence.

2. How do the scores for the well-being, self-control, emotionality, and sociability trait emotional intelligence factors and global trait emotional intelligence of college and university presidents differ from the scores of the general population?

To explore the second research question, there were five hypotheses:

HA_1: The well-being factor mean score of college and university presidents is higher than the mean score of the general population.

HA_2: The self-control factor mean score of college and university presidents is higher than the mean score of the general population.

HA_3: The emotionality factor mean score of college and university presidents is higher than the mean score of the general population.

HA_4: The sociability factor mean score of college and university presidents is higher than the mean score of the general population.

HA_5: The global trait emotional intelligence mean score of college and university presidents is higher than the mean score of the general population.

Through the series of hypotheses, the study proposed the presidents would have high scores on the measures of the well-being, self-control, emotionality, and sociability factors and global trait emotional intelligence. Further, the study proposed the college and university presidents would score higher than the general population on all four of the factors and global trait emotional intelligence.

Statement of Potential Significance

The study provided new empirical knowledge about the emotional intelligence of college and university presidents. Also, since this was a quantitative study with a census strategy and large study sample, the study findings are generalizable. Thus, this study offers a potentially significant foundational contribution to both scholarly literature and practice in several ways.

First, identifying and describing the emotional intelligence traits of college and university presidents filled a void in the scholarly literature. There is a paucity of information in the scholarly literature about the emotional intelligence of college and university presidents. This study contributes to the scholarly literature streams related to emotional intelligence, leadership, higher education, and loosely coupled systems. Second, the new knowledge generated by this study may inform and shape future theoretical advancements in those areas. Third, the new empirical and generalizable knowledge from this study provides a foundational understanding and spring board for future research. Areas of research that may find this study helpful include the domains of authentic leadership, charismatic leadership, full range of leadership (transformational, transactional, laissez faire), leadership effectiveness, emotional intelligence, loosely coupled systems, and higher education, among others.

Further, this study offers contributions to practitioners in the higher education sector. First, this study presented college and university presidents with an opportunity to gain insight into their emotional intelligence as individuals and as a collective, provided presidents with an opportunity for individual and collective self-reflection, and thus may inform and shape how some presidents perceive and respond to situations and

opportunities in the future. Second, as evinced by emails the researcher received from some college and university presidents, participating in this study piqued some presidents' interest in emotional intelligence and leadership, leading some presidents to further explore the topic of emotional intelligence and perhaps even engaging her/his senior leadership team in some manner. Additionally, this study may be of interest to emerging and incoming college and university presidents. Third, the findings of this study may be beneficial to college and university boards of trustees/regents, search firms, higher education associations, consultants, and future researchers, among others.

To facilitate the potential contributions of this study, efforts will be undertaken to publish and present the findings of this study. Further, participating presidents were given an opportunity to confidentially receive their individual scores, the aggregated mean scores from their peer group (the study sample of college and university presidents), and the mean scores of the comparative general population (normative group). More than 200 (68%) of the participating presidents opted in to receive a report. The next sections address how the study was implemented.

Conceptual Framework

The research study was designed to identify and describe the emotional intelligence of college and university presidents. The variables explored were college university presidents and emotional intelligence traits. The empirical study is graphically presented in Figure 1.1.

The conceptual framework guiding the research study engaged the constructs emotional intelligence and leadership. Studies have found connections and correlations that reinforce the role of emotional intelligence in leadership (e.g. Amram, 2009; Barbuto

& Bugenhagen, 2009; Barbuto & Burbach, 2006; Bar-On, 1997; Carrington, 2015; Golden, 2015; May-Vollmar, 2017; Rodriguez, 2016), and evince that emotional intelligence is predictive of effective leadership (Rosete & Ciarrochi, 2005). The conceptual framework that guided the study is graphically illustrated in Figure 1.2.

Conceptual Underpinnings

The research study was grounded in the functionalist paradigm as put forward by Burrell & Morgan (1979/2009). Accordingly, the study utilized a realist ontological perspective, viewing the nature of beings and the world as tangible and real (Burrell & Morgan, 1979/2009). Second, a positivist epistemological lens guided this research. Through this lens, knowledge is considered a cumulative process adding to the existing stock of knowledge (Burrell & Morgan, 1979/2009). Third, the study had a deterministic view of human nature. In this view, humans and their experiences are regarded as products of the environment and situation (Burrell & Morgan, 1979/2009). Finally, a nomothetic research methodology was utilized. The nomothetic research method emphasizes systemic protocol and technique, quantitative approaches, use of standardized research instruments such as surveys, and generalizable knowledge as a research goal (Burrell & Morgan, 1979/2009).

Theoretical Foundations

Emotional intelligence is powerful and "a critical component of leadership" (Prati, Douglas, Ferris, Ammeter, Buckley, 2003a, p. 27; Goleman, 1995/2006; 1998a, 1998b, George, 2000; Salovey & Mayer, 1990) as evinced by a large collective of studies (e.g. Barbuto & Bugenhagen, 2009; Barbuto & Burbach, 2006; Carrington, 2015; Mandell & Pherwani, 2003; Palmer, Walls, Burgess, & Stough, 2001; Rodriguez, 2016).

Figure 1.1 **Graphic Presentation of Empirical Study**

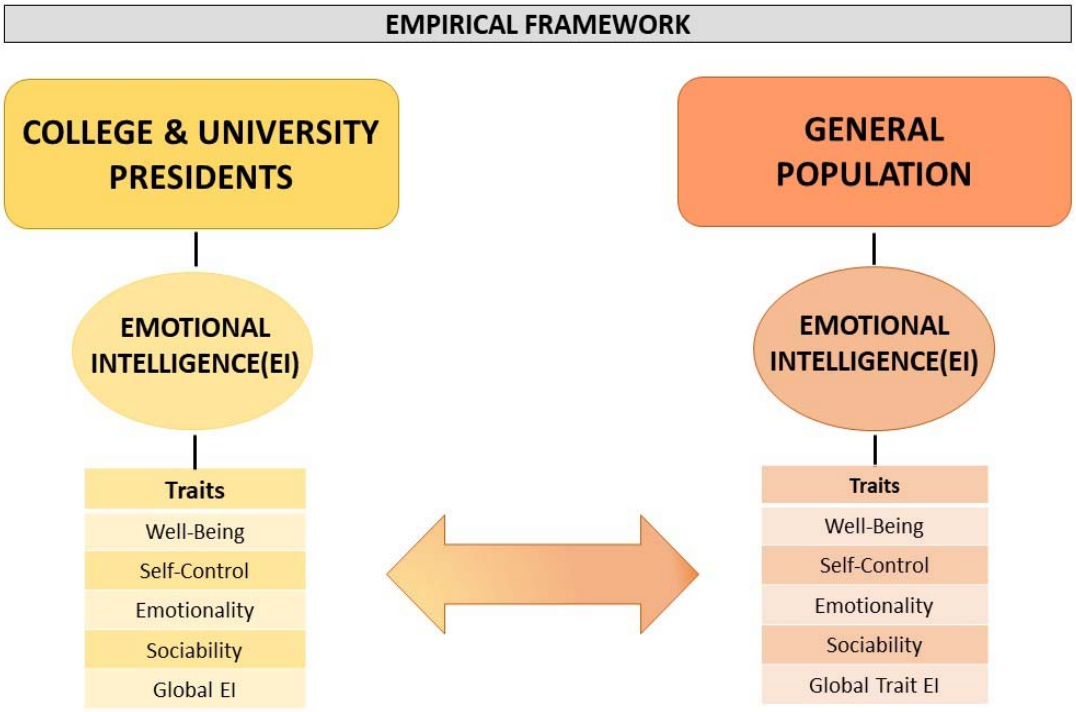
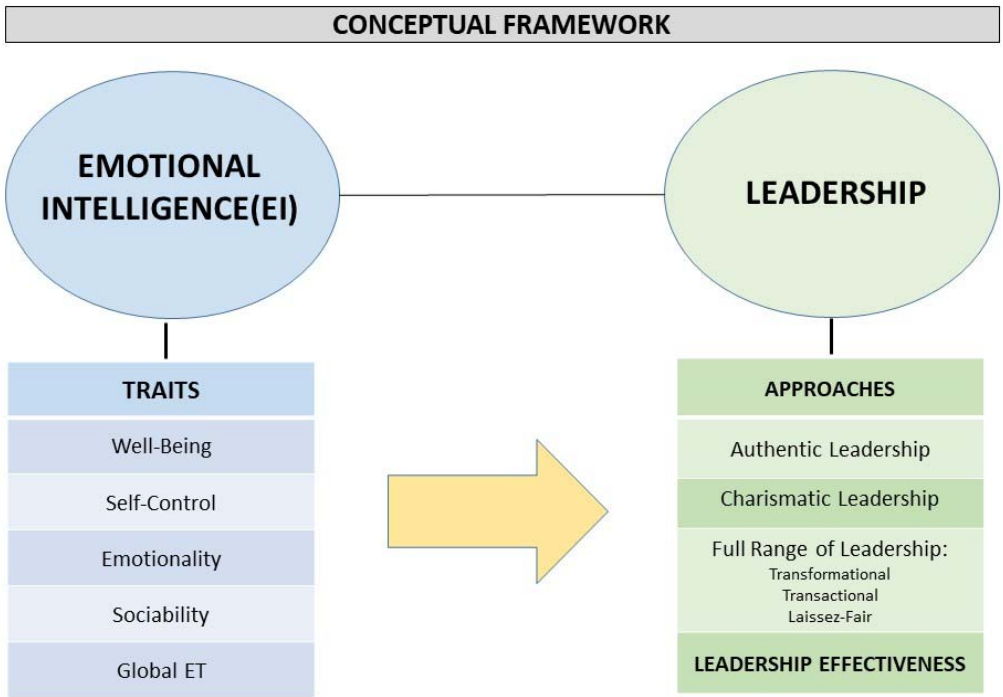


Figure 1.2 **Graphic Presentation of Conceptual Framework**



The empirical evidence shows that emotional intelligence and effective leadership are linked (Amram, 2009; Bar-On, 1997; George, 2000; Golden, 2015; Goleman, 1995/2006; Goleman, Boyatzis, & McKee, 2002; Higgs, 2002; May-Vollmar, 2017; Mayer & Salovey, 1995; Rosete, 2007; Rosete & Ciarrochi, 2005), and further that emotional intelligence is predictive of effective leadership (Rosete & Ciarrochi, 2005). These understandings were central to the study, which was framed on three theoretical foundations. The three theoretical foundations were: (a) the model of trait emotional intelligence, advanced by Petrides (Petrides, 2009b, 2010, 2017; Petrides & Furnham, 2000b, 2001, 2003; Petrides, Pérez-González, & Furnham, 2007; Petrides, Pita, & Kokkinaki, 2007); (b) the definition of leadership as a process of influence (Birnbaum, 1987; Yukl, 1998/2013); and, (c) the concept of effective leadership, as posited by George (2000) and the Kouzes & Posner (1987/2017) Five Practices of Exemplary Leadership Model. Following is an overview of the three theoretical foundations.

Trait Emotional Intelligence Theory and Model

The first and primary theoretical foundation for the study was the trait emotional intelligence theory and model advanced by Petrides (Petrides, 2009a, 2009b, 2010, 2017; Petrides & Furnham, 2000b, 2001, 2003; Petrides, Pérez-González, & Furnham, 2007; Petrides, Pita, & Kokkinaki, 2007). Central to the trait emotional intelligence theory is the concept of self-efficacy (Bandura, 1977; 1997; Petrides, 2009b). The trait emotional intelligence theory explicitly articulates the "inherent subjectivity of emotional experience" (Petrides, 2017.p. 2) and is the only operational emotional intelligence model to do so (Petrides, 2010, 2017). The trait emotional intelligence model comprises four main factors (well-being, self-control, emotionality, and sociability), fifteen facets

positioned within the factor dimensions, and an overarching global trait emotional intelligence score. The model is operationalized through the Trait Emotional Intelligence Questionnaire (TEIQue), a consistently psychometrically validated self-report measure of emotion-related dispositions and self-perceptions (Petrides, 2009b, 2017; Petrides, Pita, & Kokkinaki, 2007). More information about the trait emotional intelligence theory, model, and measurement are presented in Chapter 2.

Definition of Leadership as Influence

"Influence is the *essence* (italics in original) of leadership" (Yukl, 1998/2013, p. 406; Birnbaum, 1987). This definition of leadership is the second component of the theoretical foundation for the study. Leadership is the process of directly and indirectly "influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives" (Yukl, 1998/2013, p. 7)**.** This perspective views leadership "not [as] domination, but the art of persuading people to work toward a common goal" (Goleman, 1995/2006, p. 49). Emotional intelligence—which includes intrapersonal, interpersonal, and communication skills—is necessary to influence people and to develop cooperative relationships, create social networks, facilitate teamwork, constructively resolve conflicts, and achieve identified goals (Yukl, 1998/2013). Emotional intelligence is especially relevant to leadership as influence since this definition of leadership is an emotion-laden process" (George, 2000, p. 6).

Concept of Effective Leadership

The third and final theoretical foundation for the study is the concept of effective leadership, as put forward in the Five Practices of Exemplary Leadership Model developed by Kouzes and Posner (1987/2017). The Kouzes & Posner model specifies

five leadership practices that are necessary for effective leadership: (i) Model the way, (ii) Inspire a shared vision, (iii) Challenge the process, (iv) Enable others to act, and (v) Encourage the heart. The empirical and theoretical literature streams evince a positive and predictive relationship between emotional intelligence and leadership effectiveness (Amram, 2009; Bar-On, 1997; Golden, 2015; Goleman, 1995/2006; Goleman, Boyatzis, & McKee, 2002; Heifetz & Linsky, 2002; Higgs, 2002; May-Vollmar, 2017; Rosete, 2007; Rosete & Ciarrochi, 2005; and Yukl, 1998/2013).

Statement of Methodology

The research study was a foundational descriptive quantitative study with a survey research design. The data collection instrument was the Trait Emotional Intelligence Questionnaire Short Form (TEIQue-SF) (Petrides, 2009b). The TEIQue-SF is a well-known and psychometrically validated self-reporting instrument that has been translated into 26 languages (Petrides, 2009b). The TEIQue-SF offers a snapshot of an individual's overall trait emotional intelligence as well one's sociability, emotionality, self-control, and well-being. The TEIQue-SF and a short demographic questionnaire were administered as a single instrument online via SurveyMonkey™.

The study sample frame comprised the 1,562 presidents at Carnegie-classified baccalaureate, master's, and doctoral institutions listed in the Higher Education Directory® (HigherEd Directory). The directory provided contact information for the presidents, including names and email addresses. A single stage census strategy was used, with a final sample of 1,296 presidents who were all recruited via personalized emails.

An *a priori* (prospective) assessment was conducted to identify the minimum sample size necessary to achieve statistical validity for the study. For the two-tailed one sample *t*-test, the minimum sample size required was 34 participants. This was calculated using G*Power 3, Version 3.1.9.2 (Faul, Erdfelder, Lang, & Buchner, 2007), with a significance level of .05 ($\alpha = .05$), a power of .80 (1-β), and a medium effect size ($d = 0.5$). The calculation is presented in Appendix B. Additionally, an aspirational response rate of 20% was set for the study. With a 23% response rate, the aspirational response rate goal was achieved. Further, with a final sample of 300 participants, the necessary sample size of 34 participants for statistical validity was substantially surpassed.

The collected data set was analyzed using Creswell's (2014) protocol. Next, a descriptive statistical analysis of the demographic data was conducted. Additionally, the trait emotional intelligence data set was electronically uploaded to SPSS Statistics Version 23 and scored according to the TEIQue-SF protocol. Descriptive statistics and analysis were conducted to answer the research questions. To answer the first research question, the means and standard deviations for the continuous variables—the presidents' TEIQue-SF well-being, self-control, emotionality, and sociability emotional intelligence factor scores and the global trait emotional intelligence score—were determined and reported. To answer the second question, a two-tailed one sample *t*-test and a chi-squared goodness of fit test were conducted to understand the score distributions between the college and university presidents and the normative sample (representing the general population). Prior to conducting the *t*-test, the assumptions of the *t*-test were assessed and Cronbach's alpha statistical analysis (1951) was conducted. Additionally, frequency

distribution and percentages were calculated for demographic categorical variables (i.e. age, gender, etc.) for the college and university presidents group.

Delimitations

Some boundaries were set in advance to make the study and literature review manageable within a dissertation framework. First, the population of interest was presidents of colleges and universities. The study was delimited to presidents at Carnegie Classified baccalaureate, master's, and doctoral institutions.

Second, the theory of trait emotional intelligence (Petrides, 2009a, 2009b, 2010, 2017; Petrides & Furnham, 2000b, 2001, 2003) consists of an overarching global trait and four trait emotional intelligence factors, and the four factors encompass fifteen facets of emotional intelligence. To measure the college and university presidents' trait emotional intelligence, this study utilized the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) instrument. This instrument was the best fit for the study, as discussed in Chapter 3. Utilizing the TEIQue-SF instrument delimited the data collection to the four factors, global trait of emotional intelligence, and some general information about the fifteen facets. Hence, detailed information about the fifteen facets was not obtained.

Third, there are many emotional intelligence theories, models, and measurements by which the models are operationalized. The review of this literature was delimited to the four emotional intelligence theories (and their related models and measurements) that are identified in the literature as the most prominent and salient. These theories are: Ability Theory of Emotional Intelligence (Mayer & Salovey), Emotional-Social

Intelligence Theory (Bar-On), Emotional Intelligence and Emotional Competence Theory (Goleman & Boyatzis), and Trait Emotional Intelligence Theory (Petrides & Furnham).

Fourth, the leadership literature review was delimited to: a) seminal perspectives and salient points of consensus about leadership relative to its connection with emotional intelligence, b) addressing the major leadership approaches for which empirical evidence has demonstrated a connection with emotional intelligence, and c) reviewing the literature about emotional intelligence and its relationship to leadership effectiveness.

The four delimiting parameters of this study—bounding the size of the population of interest, the breadth of the data collection, the literature review of the emotional intelligence theories, and the review of the leadership literature—were set in advance to make the study and literature review manageable within a dissertation framework.

Limitations

This study faced two potential limitations. First, there are potential limitations when using online and self-administered surveys. Second, the nature of the role and schedules of the college and university presidents was a potential limitation. Strategies to counter these potential limitations and maximize the response rate were implemented and are presented in Chapter 3.

Definition of Key Terms

The following key terms, perspectives, and definitions are used throughout this document:

Emotion: Van Brakel (1994) presented a table with more than 20 definitions of emotion and comments about the differences in the definitions. For the purposes of this study, the following definition will be used. "A complex personal response to a

subjective cognitive state, resulting in transitory changes in bodily responses, expressive behaviours and motivated actions" (Davey, 2006, p. 305). Further, "the functionalist approach describes a group of theories that individually explain the purpose of emotion as it relates to fulfilling a goal or initiating an action (Barrett & Campos, 1987). According, emotions serve a major role in life by organizing and regulating our behavior, cognitive processing, and physical health…Another factor in the functionalist approach is that as emotion develops, it becomes more susceptible to external social experience while also coming under voluntary control" (Davey, 2006, p. 187).

Emotionality factor: Consisting of the four facets of empathy, emotional perception, emotional expression, and relationships, the emotionality factor indicates the extent to which one perceives one's own and other people's emotions, expresses one's own emotions, and engages these qualities to develop and sustain relationships with other people (Petrides, 2009b).

Emotional intelligence: Emotional intelligence is a multifaced construct (Zeidner, Matthews, Roberts, 2012) and there is not consensus in the literature about the definition of emotional intelligence. For the purposes of this study, emotional intelligence is defined as "a constellation of emotional perceptions" (Petrides, 2017, p. 2) that inform a person's identification, assessment, and management of emotions of one's self, others, and groups (Serrat, 2017, p. 330).

Global Trait: The overall score on the TEIQue instruments, the "global EI score is a broad index of general emotional functioning" (Petrides, 2009b) and is the highest level at which the TEIQue instruments measure trait emotional intelligence.

Intelligence: "Many different definitions of intelligence exist, but most agree that intelligence is an individual's capacity to solve problems, or a logical reasoning ability used to negotiate in the world (Kline, 1991). …Another key point is that intelligence tests, and researchers concerned with intelligence, are focused on individual differences between people in their cognitive ability" (Davey, 2006, p. 203).

Leadership: In Birnbaum's (1989) study of college and university presidents, he stated their common definition leadership was a "process of influence directed towards the achievement of goals" (p. 11). More specifically, "leadership is the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives" (Yukl, 1998/2013, p. 7)**.**

Nomological network: This idea was put forward by Cronbach and Meehl (1955) who posited that construct validity required a nomological network. A nomological network includes the theoretical framework for what will be measured, an empirical framework for how the measurement will be conducted, and linkages between the frameworks (Trochim, 2006/2018); and the vernacular that arises in the context of associated scientific meanings and theoretical constructs (Mayer, Roberts, & Barsdale, 2008).

Organizational culture: The patterns of shared values, beliefs, assumptions, and artifacts of an organization (Schein, 1985/2010). Additionally, in accordance with the theory of cultural dynamics, organization members use symbols and the

processes of symbolization and interpretation "co-occur in a continuous production and reproduction of culture" (Hatch, 1993, p. 661).

Personality: "A branch of individual differences which seeks to understand how people vary in their 'personal style'" (Davey, 2006, p. 340) and

Personality trait: "The nomothetic approach emphasizes generality and seeks to identify universally valid personality dimensions. It is the dominant approach in the field and has been endorsed and developed by some of the greatest psychologists of all time. Major trait theories the nomothetic tradition include Eysenck's [1953] three factor model and the Big Five model of personality [Costa & McCrae, 1992; Goldberg, 1990]" (Davey, 2006, p. 342).

President: This individual is the highest-ranking officer of a college or university, and is appointed by a governing body, usually a board of directors, regents, or trustees.

Self-control factor: Comprising the three facets of emotional regulation, impulsiveness, and stress management, the self-control factor reflects the extent to which an individual has control over one's own urges and desires, regulates external pressures, and manages stress (Petrides, 2009b).

Sociability factor: Encompassing the three facets of emotional management, assertiveness, and social awareness, the sociability factor "emphasizes social relationships and influences" (Petrides, 2009b, p. 61) with a focus "on the individual as an agent in social contexts" (p. 61). "Individuals with high scores are better at social interaction, are good listeners, and can communicate clearly and confidently with people from diverse backgrounds. Those with low scores

believe they are unable to affect others' emotions and are less likely to be good negotiators and networkers" (p. 61).

Trait Emotional Intelligence: "A constellation of emotional self-perceptions located at the lower levels of personality hierarchies and measured via the trait emotional intelligence questionnaire (Petrides, Pita, & Kokkinaki, 2007)" (Petrides, 2010, p. 137).

Well-being factor: Made up of the three facets of optimism, happiness, and self-esteem, the well-being factor reflects an individual's "general sense of well-being, extending from past achievements to future expectations" (Petrides, 2009b, p. 61).

Chapter Summary

To provide context for this study, the chapter began with a brief overview of the current higher education environment and the unique role of college of and university presidents. Second, the problem statement was presented. Third, the statement of purpose and research questions were put forward. Fourth, the potential significance of the study was discussed. Fifth, the conceptual framework was identified, followed by the conceptual underpinnings and theoretical foundations of the study. Next, the methodology used to implement the study was summarized and the delimitations and limitations of the study were identified. Finally, the chapter concluded with definitions of key terms used in this document. The next chapter presents and synthesizes the relevant scholarly literature.

Chapter 2: Literature Review

Overview

To lay the theoretical, conceptual, and empirical platform for the study, this chapter presents a review of the literature. First, emotional intelligence is addressed. This section begins with information about emotional intelligence as a relatively new construct, followed by a presentation of the theoretical foundations of emotional intelligence, which include the emotional domain, intelligence domain, and personality domain. Next, the four prominent approaches to emotional intelligence are described—including the theory, models, and measurements of each approach, as well as the leading concerns posited about each approach in the scholarly literature. Additionally, the selection of the trait emotional intelligence approach (Petrides & Furnham, 2001, 2001; Petrides, 2017) as the core component of the framework for this study is discussed.

Second, emotional intelligence and leadership are addressed. This begins with an overview of the leadership construct. Next, the leadership approaches which have been empirically linked to emotional intelligence, and their respective connections to emotional intelligence, are described. Also, leadership effectiveness is discussed and its connection to emotional intelligence is described.

Third, the higher education is context is described. This begins with a description of the categories of higher education institutions. Next, leadership and the higher education environment is reviewed. This includes descriptions of the external environment and the key internal factors with which college and university presidents must effectively engage. Finally, the chapter concludes with the connections about emotional intelligence and leadership by college and university presidents.

Emotional Intelligence

During the past 30 years, many theories, models, and measurements of emotional intelligence have been developed and investigated. As part of this, the scholarly discourse was, and continues to be, robust and rigorous. The discourse has included conceptual, theoretical, historical, empirical, methodological, psychometric arguments and sometimes intense point-counterpoint debates (e.g. Antonakis, 2003; Antonakis, Ashkanasy, & Dashborough, 2009; Antonakis & Dietz, 2010; Ashkanasy & Daus, 2005; Cherniss, 2010a, 2010b; Conte, 2005; Laborde & Allen, 2016; Landy, 2005; Legree, Mullins, & Psotka, 2016; Locke, 2005; Mayer, Caruso, & Salovey, 2016; Petrides, 2010; Petrides, Mikolajczak, Mavroveli, Sanchez-Ruiz, Furnham, & Pérez-González, 2016; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003a, 2003b; Schutte & Malouff, 2016).

Emotional Intelligence Construct

Over the years, research about emotional intelligence flourished and continues to do so today. There is now substantial scientific evidence that emotional intelligence predicts and has other important applications in clinical, health, education, leadership, organizational, relationships, vocational, and workplace realms, among others (Barchard, Brackett, and Mestre, 2016; Petrides et al., 2016; Rosete & Ciarrochi, 2005). Also, in the popular literature there are abundant reports about the importance of emotional intelligence (e.g. Bradberry, 2016; Goleman & Boyatzis, 2017; Hunckler, 2017; Toomey, 2017). Through the concurrent processes of scholarly discourse and scientific research, combined with the enthusiasm among practitioners, "emotional intelligence has emerged as a core construct in mainstream psychology and beyond" (Siegling, Saklofske, & Petrides, 2015, p. 381).

Regarding emotional intelligence as a construct, Kuhn (1962/2012) articulated the signs of scientific revolution as "proliferation of competing articulations, the willingness to try anything, the expression of explicit discontent, the recourse to philosophy, and to debate over fundamentals" (Kuhn, 1962/2012, p. 91). Goleman (2001) asserted the scientific evolution of the emotional intelligence paradigm demonstrated this process, and others state there has been a zeitgeist (Goleman, 1995/2006; Mayer, Salovey, & Caruso, 2000; Zeidner, Matthews, & Roberts, 2009). Spector and Johnson (2006/2013) and Cherniss (2010b) opined that during the past three decades in the social sciences, perhaps no construct has produced more controversy than emotional intelligence, and Zeidner et al. (2009) expressed that emotional intelligence has emerged as "one of the most high-powered modern constructs" (p. xi).

The emotional intelligence construct is multifaceted (Zeidner, Matthews, & Roberts, 2012) and posts "that individuals differ in the extent to which they attend to, process, and utilize affect-laden information" (Petrides & Furnham, 2003, p. 39). It is difficult to put forward an operational definition of emotional intelligence that is accepted by all, as has been expressed by Oatley (2004a), Petrides (2017), Van Rooy and Viswesvaran (2004), and Zeidner, Matthews, & Roberts (2009), among others. In addition to some conceptual differences, the varying names given to emotional intelligence are another part of the reason it has been difficult for scholars to agree on a single difference. In the literature, emotional intelligence has also been referred to as emotional literacy, emotional-social intelligence, the emotional quotient, personal intelligence, social intelligence, and interpersonal intelligence (Bar-On, 2000; Dulewicz & Higgs, 2000; Van Rooy & Viswesvaran, 2004).

Additionally, there is not consensus on the definition of core components emotional intelligence. As reported by Oatley (2004a), Van Brakel (1994) presented a table with more than 20 definitions of emotion and comments about the differences in the definitions. Further, Oatley posited, "it is not definitions that are centrally at issue, but concepts. Newton's contributions to the physics of motion was not to define it but to understand it" (2004a, p. 217). The following review of the literature seeks to provide insight for an understanding of emotional intelligence and does so by addressing the theoretical foundation of emotional intelligence; the prominent theories, models, and measures of emotional intelligence; and, two recent important research advancements.

Theoretical Foundation

Scientific concepts and a vernacular arise in the context of associated scientific meanings, theoretical constructs, and theoretical frameworks (Mayer, Roberts, & Barsdale, 2008; Trochim, 2006)—what Cronbach and Meehl (1955) referred to as a nomological network. Three domains in psychology encompass the core nomological network and theories that constitute the theoretical foundation of emotional intelligence. The engaged domains are the emotional, intelligence, and personality domains (Bar-On, 2000; Goleman, 1995/2006; Mayer, DiPaolo, & Salovey, 1990; Mayer & Salovey, 1993; Petrides & Furnham, 2000b). As explicitly stated by Mayer and Salovey (1995), the emotional intelligence construct is the nexus of the emotional, intelligence, and personality domains. The relevant core concepts, vernacular, models, and theories from these three domains—as identified in the literature by the emotional intelligence scholars—are presented in the following sections.

Emotional domain. Scholars have traced conceptions and written descriptions of emotion back to ancient Greece (e.g. Goleman, 1995/2006; Mayer & Salovey, 1995, 2005; Oatley, 2004b; Wakeman, 2009; Zeidner et al., 2009). More than 2,300 years ago, Aristotle expressed, "To experience emotions at the right times, on the right occasions, toward the right persons, for the right causes, and in the right manner is the mean, or the supreme good, and this is characteristic of virtue" (Aristotle, *Nicomachean Ethics*, c350 BC, translated by Welldon, 1897, p. xix). Mayer and Salovey, in their 1995 seminal emotional intelligence article, quoted Aristotle numerous times as part of their theoretical groundwork. For example, Mayer and Salovey (1995) cited Aristotle to support their positions that sometimes happiness demands "more sophisticated behavioral patterns" (p. 198), happiness must include "proindividual and prosocial activity" (p. 199), "good emotional construction and regulation requires flexibility in processing" (p. 199). Goleman (1995/2006), in a description of emotional intelligence, suggested that "Were he alive today, Aristotle, so concerned with emotional skillfulness, might well approve" (p. 269).

Over time, views and research about emotions have generally changed on a spectrum—with intelligence and reason prioritized and viewed as superior on one end of the spectrum, with the valuing and supporting of emotional expression on the other end of the spectrum (Cooper, 2005; Goleman, 1995/2006; Mayer, Salovey, & Caruso, 2004, 2008; Oatley, 2004b). The pull and tension between the emotions and intelligence value spectrum has been longstanding (Brackett, Rivers, & Salovey, 2011; Goleman, 1995/2006; Lloyd, 1979; Mayer, Salovey, & Caruso, 2000; Mayer, Salovey, Caruso, & Cherkasskiy, 2011; Zeidner et al., 2009). "The split between emotion and intelligence is

ancient. Throughout the ages, attempts at reconciliation have been made, but with mixed success (Averill & Sundararajan, 2006)" (Averill, 2007. p. 49). The spectrum of perspectives and the historical development and discourse in the emotional domain literature has been well-chronicled by numerous scholars (e.g. Averill, 2007; Averill & Sundararajan, 2006; Chopra & Kanji, 2010; Cooper, 2005; Kise, 2014; Oatley, 2004b; Salovey, Mayer, & Caruso 2002; Zeidner et al., 2009).

Scientific understanding about emotions and the mechanics of emotional life are rooted in the work of Darwin (Bar-On, 2006; Goleman, 1989; Mayer, Salovey, Caruso, & Sitarenios, 2001; Petrides, 2017). Darwin (1872/1965) posited that emotions are part of the adaptive, evolutionary, and survival process and that humans internally experience and universally express emotions (Bar-On, 2006, 2010; Mayer et al, 2001; Nylund & Raelin, 2015; Petrides, 2017). Emotional intelligence scholars have referenced Darwin's work as seminal in the development of emotional intelligence models and theory (Bar-On, 2006, 2010; Goleman, 1995/2006; Mayer et al, 2001; Petrides, 2017).

In the contemporary literature, the following foundational concepts were identified by the emotional intelligence scholars and thus comprise the contemporary nomological network for emotional intelligence in the emotional domain. First, emotions are perceived as an individual's interpretation of their place and engagement with the world (Goleman, 1995/2006; Lindebaum, 2009; Mayer, Caruso, & Salovey, 2000; Solomon, 1993). Bar-On (1997), Goleman (1995/2006), Mayer et al. (1990), Petrides & Furnham (2000b), and Solomon (1993), posited that emotions are fundamental judgements about ourselves and the values, ideals, and structures through which we live. As Cooper and Sawaf (1997) explicitly and succinctly expressed, emotions "contain our

histories, every line and verse of every experience, deep understanding, and relationship in our lives" (p. xxviii). Second, emotions are viewed as personal evaluations and judgements, not passive reactions or responses (Colman, 2015; Goleman, 1995/2006; Markus & Kitayama, 1991; Solomon, 1993). Third, emotional intelligence scholars have concurred that social situations and environments are subjective and construed differently by each person and emotions are pivotal in this process (Bar-On, 2006, 2010; Goleman, 1995/2006; Markus & Kitayama, 1991; Mayer & Salovey, 1993; Solomon, 1993; Petrides, 2010). Additionally, as emphasized by Goleman (1995/2006), Mayer, Caruso, & Salovey (2000), and Mayer et al. (2008), the emergence of an emotion involves "coordinated changes in physiology, motor readiness, behavior, cognition, and subjective experience (Izard, 1993; Parrot, 2002; Simon, 1982)" (Mayer et al., 2008, p. 510). Further, there is concurrence in the emotional intelligence literature that emotions can distort a person's basic reasoning and decision-making (Antonakis, 2003; Goleman, 1996/2006; Mayer et al., 1990; Oaksford, Morris, Grainger, & Williams, 1996; Petrides, 2010; Shafir & LeBoeuf, 2002).

The concepts, perspectives, and theories described in this section were identified by the emotional intelligence scholars as core to the emotional domain nomological network and theoretical foundation for emotional intelligence. These concepts, perspectives, and theories were engaged and built upon by the emotional intelligence scholars during the development of emotional intelligence theories, models, and measurements. The next section addresses the intelligence domain as part of the theoretical foundation of emotional intelligence.

Intelligence domain. At least since the ancient Greek philosophers nearly 2,400 years ago, the human mental power—referred to in the literature as intelligence, intellect, rationality, reason, the mind—has been viewed as a paramount element of the human condition (Cianciolo & Sternberg, 2004; Ellis, Abrams, & Abrams, 2009; H. Gardner, 1983/2011; Mayer, Salovey, & Caruso, 2000; Plato, c. 390 BC). Plato, in *The Republic* (c390 BC), proffered that human behavior has three guiding forces—reason, emotion, and appetite—with reason designated as the highest value (Ellis, Abram, & Abram, 2009). In the literature, historical and contemporary discourse about intelligence concepts, theories, and measurements has been well-chronicled (e.g. Brody, 2013; Chopra & Kanji, 2000; Cianciolo & Sternberg, 2004; M. Gardner, 2012; Landy, 2006/2013; Mackintosh, 2011; Matthews, Zeidner, & Roberts, 2002; Matthews, Zeidner, & Roberts, 2007; Mayer, Salovey, Caruso, Cherkasskiy, 2011; Mayer, Salovey, Caruso, & Sitarenios, 2001; Zeidner et al., 2009). Following is a review of intelligence domain concepts and theories identified in the literature by the emotional intelligence scholars as being seminal to the conceptual and theoretical development of emotional intelligence or particularly germane to the scholarly discourse about emotional intelligence.

The Theory of General Intelligence, also known as the Two Factor Theory, was postulated by Spearman (1904). The Theory of General Intelligence articulates that mental intelligence has two factors—first, the general factor (called g) that underlies all mental intelligence, and second, the specific factors (called s) that are unique to an individual's performance on any intelligence test (Brody, 2013; Colman, 2015; Mackintosh, 2011; Spearman, 1904). In the extensive body of literature about g, key fundamental assertions include:

g permeates performance on all mental or intellectual tasks, *g* does not vary much across a person's lifespan, and *g* is the factor with the greatest psychological significance (Brody, 2013; Cianciolo & Sternberg, 2004; Mackintosh, 2011; Matthews et al., 2002; Matthews et al., 2007; Spearman, 1904; Zeidner et al, 2009).

Brody (2013) asserted that after more than 100 years, *g* is still considered "the most important theoretical construct in contemporary research on individual differences in intelligence" (p. 161) and "one of the most controversial constructs in psychology" (p. 170). Further, Brody (2013) and Zeidner et al. (2009) explicitly articulated that fundamental facets of *g* are inconsistent with the notion and measurement of emotional intelligence. Also, scholars such as Kise (2014) and Zeidner et al. (2009) suggested that Binet (1905)—a seminal intelligence testing pioneer whose collaborative work laid the foundation for contemporary intelligence quotient (IQ) tests (Mackintosh, 2011)—was aware factors besides general intelligence (*g*) might be important to social functioning.

In their seminal emotional intelligence article, Salovey and Mayer (1990), discussed Spearman's theory of intelligence and *g* (general intelligence). Salovey and Mayer expressed that they "consider Spearman's unifactorial, "*g*," view of intelligence as a *model* (italics in original) of intelligence" (1990, p. 187). Further, Salovey and Mayer stated emotional intelligence "may not necessary conform to the "g" model…and this should not reflect on its classification as a type of intelligence" (1990, p. 187). This perspective was an important component of the theoretical foundation of emotional intelligence, and the topic of *g* has been part of scholarly discourse about emotional intelligence (e.g. Averill, 2007; Brody, 2013; Landy, 2006; Schulte, Ree, & Carretta,

2004; van der Linden, Pekaar, Bakker, Dunkel, Schermer, Vernon, & Petrides, 2017; Van Rooy, Dilchert, Viswesvaran, & Ones, 2006; Zeidner et al., 2009).

The work of Thorndike (1920) has been identified (Bar-On, 2000; Goleman, 1995/2006; Landy, 2005; Landy, 2006/2013; Mayer & Salovey, 1993; Petrides & Furnham, 2001; Petrides, Furnham, & Frederickson, 2004; Salovey & Mayer, 1990) as a theoretical anchor for the seminal conceptualization and some models of emotional intelligence. A pioneer in intelligence theory and measurement, Thorndike (1920) proposed a concept of three intelligences: mechanical intelligence, abstract intelligence, and social intelligence. Social intelligence was defined as "the ability to understand and manage men and women, boys and girls—to act wisely in human relations" (Thorndike, 1920, p. 228). Additionally, Thorndike (1920) discussed the importance of measuring intelligences and the challenges associated with measuring social intelligence. In the emotional intelligence literature, scholars (e.g. Bar-On, 2006; Bar-On, 2007; Burns, Bastian, & Nettelbeck, 2007; Goleman, 1995/2006; Mayer & Salovey, 1993; Petrides & Furnham, 2001; Salovey & Mayer, 1990; Vachon & Bagby, 2007; Zeidner et al., 2009) have emphasized Thorndike's concept of social intelligence as a keystone in the theoretical foundation for emotional intelligence, and often cited Thorndike (1920) as the first to introduce the social intelligence concept.

Landy (2006/2013) has pointed out that the social intelligence term and concept were postulated earlier by Dewey (1909):

> The moral has been conceived in too goody-goody a way. Ultimate moral motives and forces are nothing more or less than *social intelligence* (italics in the original)—the powers of observing and comprehending social

> situations—and *social power* (italics in the original)—trained capacities of control—at work in the service of social interests and aims… The moral trinity of the school (includes) the demand for social intelligence, social power, and social interests. (p. 43)

Landy (2006/2013) asserted that Thorndike often credited Dewey with guiding his own thinking in psychology and education. Dewey (1909) put forward the social intelligence concept in the context of education, morality, and curricular revision (Goleman, 1995/2006; Landy, 2006/2013; whereas the concept suggested by Thorndike (1920) was in the context of cognitive intelligence and positioned as a human attribute (Landy, 2006/2013). Additionally, Landy (2006/2013) reported that although Thorndike was a prolific writer and is among the best known theoretical and applied psychologists, Thorndike only mentioned social intelligence in two writings: in his 1920 article in the popular and nonacademic *Harper's Magazine*, and as a note in a 1926 collaborative text about tasks included in an intelligence test being proposed by Thorndike and his colleagues. Landy (2006/2013) asserted that Thorndike's use of the term 'social intelligence' was a metaphor to encourage researchers and the public from relying on only one type of intelligence test for making inferences about someone's intelligence. Thus, Landy (2006/2013) questioned the use of the social intelligence as a theoretical anchor for emotional intelligence.

Wechsler (1939/1944/1958), renowned for his intelligence tests and seminal book titled *The Measurement of Adult Intelligence,* put forward this definition of intelligence:

> *Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his*

> *environment* (italics in the original). It is global because it characterizes the individual's behavior as a whole; it is an aggregate because it is composed of elements or abilities which, though not entirely independent, are qualitatively different. (1944/1958, p. 3).

Wechsler's definition of intelligence has often been referenced by emotional intelligence scholars (e.g. Barnes, 2015; Bar-On, 2006; Colman, 2015; Davids, 2016; Hertwig, 2016; Mayer & Salovey, 1993; Mayer, Salovey, Caruso, Cherkasskiy, 2011; Rude, 2013; Salovey & Mayer, 1990) as they laid the theoretical groundwork for definitions and models of emotional intelligence. Though as Landy (2006/2013) pointed out, Wechsler also expressed the following perspective in that same book: "Our point of view is that social intelligence is just general intelligence applied to social situations" (1944/1958, p. 88-89).

More recently, Gardner (1983/2011) put forward and continued to evolve the Theory of Multiple Intelligences. The multiple intelligences postulated by Gardner (2011) included: (a) linguistic, (b) musical, (c) logical-mathematical, (d) spatial, (e) body-kinesthetic, and (d) personal intelligences. The personal intelligences are intrapersonal and interpersonal (Gardner, 2011). Conceptually, intrapersonal intelligence is the knowing of one's own feelings and involves the detection and symbolization of "complex and highly differentiated sets of feelings (Gardner, 2011, p. 253). Interpersonal intelligence is the capacity to turn outward to other individuals, and Gardner defined this as "the ability to notice and make distinctions among other individuals, and in particular, among their moods, temperaments, motivations, and intentions" (2011, p. 253). Gardner's theory (1983/2011)—especially the concepts of intrapersonal and interpersonal

intelligence—has been cited by emotional intelligence scholars (Bar-On, 2006; Goleman, 1995/2006; Mayer & Salovey, 1993; Petrides & Furnham, 2001; Petrides, Furnham & Frederickson, 2004; Salovey & Mayer, 1990) as influential to their conceptual and theoretical development of emotional intelligence. Further, Gardner's Theory of Multiple Intelligences (1983/2011) has been called a "manifesto" (Goleman, 1995/2006, p. 38) that "represents a complete repudiation of the theory of *g*" (Brody, 2013, p. 175).

The vernacular, concepts, models and theories addressed in this section were identified by the emotional intelligence scholars as core to the intelligence domain nomological network and theoretical foundation for emotional intelligence. These concepts, models, and theories were engaged and built upon by the emotional intelligence scholars during the development of emotional intelligence theories and models (Bar-On, 1997; Bar-On, 2006; Cooper & Sawaf, 1997; Goleman, 1995/2006; Goleman, Boyatzis, & McKee, 2013; Mayer, Roberts, & Barsdale, 2008; Mayer & Salovey, 1995; Petrides, 2017), or as particularly germane to the scholarly discourse about emotional intelligence. Interestingly, Mayer and Salovey (1993) wrote that "emotional intelligence could have been labeled 'emotional competence,' but we chose intelligence (italics in original) in order to link our framework to a historical literature on intelligence" (p. 433). The personality domain—as the third part of the theoretical foundation of emotional intelligence—is addressed next.

Personality domain. Personality psychology seeks to discover and understand how people differ and why, how much they differ, how consistent are the differences, and can the differences be measured (Ellis, Abrams, Abrams, 2009). Personality has been defined as "the sum total of the behavioural and mental characteristics that are distinctive

of an individual" (Colman, 2015, p. 564). In the literature, historical and contemporary discourse about personality concepts, theories, and measurements has been well-chronicled (e.g. Ellis et al., 2009; Matthews, Deary, & Whiteman, 1998/2003/2009). In the emotional intelligence literature, the following foundational historical and contemporary perspectives and theories were identified by emotional intelligence scholars and thus comprise the nomological network and theoretical foundations for emotional intelligence in the personality domain.

The confirmed history of personality psychology has been dated back to ancient Greece (Ellis et al., 2009; Matthews et al., 1998/2009). In *The Republic* (c. 390 BC), Plato viewed "the human soul as the seat of personality" (Ellis et al., 2009, p. 3), and his student Aristotle "referred to the seat of personality as the **psyche** (bold in the quote)" (Ellis et al., 2009, p. 3). In his *Nicomachean Ethics (c350 BC;* translated by Welldon, 1897), Aristotle discussed emotions and presented a concept of and slate of human dispositions—referred to as traits, characteristics, or qualities in the contemporary personality psychology vernacular (Colman, 2015). Aristotle discussed individual differences in these dispositions and viewed the dispositions as determinants of behavior (Matthews et al. (1998/2009).

In Goleman's seminal book (1995/2006) and in an early emotional intelligence article by Mayer and Salovey (1995), these leading emotional intelligence theorists wrote positively about Aristotle's views. In Salovey and Mayer's (1990) seminal article postulating the theory of emotional intelligence, they referenced the "contributions of emotionality to personality" (p. 190), empathy as a "central characteristic of emotionally intelligent behavior" (p. 194), and "individual differences in processing styles" (p. 191).

Additionally, in their 1995 article Mayer and Salovey quoted Aristotle several times to support several of their theoretical positions—and explicitly articulated linkages between positions and conclusions by Aristotle and Freud—who has been described as "arguably the most influential personality theorist even in the twenty-first century" (Ellis et al., 2009, p. 14). For example, Mayer and Salovey (1995) cited Aristotle and Freud to support their propositions that sometimes "people should optimize their pleasures by forgoing short-term pleasures for longer ones" (p. 198), "personality dynamics must balance pleasure with reality" (p. 199), and that "the individual must work in cooperation with others to yield the greatest personal and social good" (p. 198). Collectively, these points indicate the personality nomological network and theoretical foundation for emotional intelligence included concepts, vernacular, and theories posited by Aristotle and Freud.

Moving into the more contemporary personality theory literature, Freud's psychoanalytic theories have been identified as "the single most culturally influential Psychological doctrines of the twentieth century" (Davey, 2006, p. 43). The psychoanalytic theory of personality introduced and advanced by Freud was that the essence of personality is comprised of three self-regulating and independent unconscious elements—the id, ego, and superego—which combine to create the complex behavior of human beings (Ellis et al., 2009). Additionally, Freud viewed emotions as paramount. For example, Freud (1921) wrote in his book *Delusion and Dream*, as reported by Chopra and Kanji (2010):

> We remain on the surface so long as we treat only memories and ideas. The only valuable things in psychic life are, rather, the emotions. All

> psychic powers are significant only through their fitness to awaken the emotions. Ideas are repressed only because they are connected with the liberation of emotions (Freud, 1921, p. 159).

Also, Freud's principle of reality—which is about delaying gratification—as well as Freud's views on under- and over-emotionality were specifically addressed by Mayer and Salovey (1995) as conceptual underpinnings and theoretical groundwork for their perspective on emotional intelligence and the regulation of feelings. Goleman (1995/2006) remarked about the "brilliant insights of Freud" (p. 38). Further, and more than twenty years later, Petrides (2017) directly identified Freud's work and the psychoanalytic school of thought as a theoretical foundation for emotional intelligence.

The humanistic school of thought put forward a different perspective of human personality. The essential premise of the humanistic perspective is that people are inherently good and strive to realize their full personal potential, also referred to as maximum personal development or self-actualization (Ellis et al., 2009). Within this perspective, Maslow (1943) formulated his "positive theory of motivation" (p. 371)—a hierarchy of stages/needs through which people move to ultimately achieve the final stage of self-actualization. Subsequently, in the first edition of his seminal book titled *Motivation and Personality,* Maslow (1954) expanded on his concept of positive psychology, discussed emotion, and described building emotional strength. In the second edition (1970) of that book, Maslow added that emotions had not been "studied sufficiently" (p. 283) and he

listed more than a page of emotion-related questions and topics for further study—including "the emotional aspects of cognition" (Maslow, 1970, p. 283).

Bar-On (2001) discussed Maslow's theory of human motivation and concept of self-actualization and stated that researchers continue to be "astounded by Maslow's perceptive powers and intuitive genius" (p. 86). Bar-On (2001) further articulated that Maslow's work was fundamental to "fully understand" (p. 88) the definition and role of self-actualization in the Bar-On model of emotional intelligence. Additionally, scholars (e.g. Bar-On, 2010; Mayer & Cobb, 2000; Salovey, Mayer, & Caruso, 2002/2009; Salovey, Mayer, Caruso, & Yoo, 2008) extensively discussed the connection between emotional intelligence and the concept of positive psychology, which was introduced by Maslow (1954). Common characteristics between emotional intelligence and positive psychology are also present in the emotional competence framework articulated by Goleman (1995/2006; 1998b) and the trait emotional intelligence model articulated by Petrides and Furnham (2000b) and Petrides (2009).

In addition to the psychoanalytic and humanistic schools of personality psychology, the trait personality perspective is another component of the theoretical foundation of some of the conceptions and models of emotional intelligence. The essential premise of the trait personality perspective is that through factor analysis, differences among people can be categorized in a series of distinct personality traits (Colman, 2015; Davey, 2006; Ellis et al., 2009). Personality traits are characteristics, dispositions, or distinguishing qualities that are fairly stable and consistent over time and across situations (Colman, 2015;

Davey, 2006; Matthews et al., 2009). This perspective is connected to the emotional and social intelligence theory, model, and operationalizing measurement developed and presented by Bar-On (1997; 2000); the emotional intelligence competencies theory, model, and operationalizing measure developed and presented by Goleman (1995/2006) and Goleman, Boyatzis, and McKee (2013); the trait emotional intelligence theory, model, and measure developed and presented by Petrides and Furnham (2000b) and Petrides (2009); and, the emotional intelligence competencies model put forward by Cherniss (2010b), among other emotional intelligence approaches and models proffered by other scholars.

The personality vernacular, perspectives, models and theories addressed in this section were identified in the literature by the emotional intelligence scholars and engaged by the scholars for the theoretical framework of the emotional intelligence construct, theories, models, and measures. Further, as explicitly stated by Mayer and Salovey (1995), it is the intersection of the emotional, intelligence, and personality domains that marks the emotional intelligence construct. The salient theories, models, and measurements of the emotional intelligence construct are presented in the next section.

Theories, Models, and Measurements

Overall, the emotional intelligence construct "posits that individuals differ in the extent to which they attend to, process, and utilize affect-laden information" (Petrides & Furnham, 2003, p. 39). As with other constructs, such as leadership, there is not a formal consensus in the literature on the definition of emotional intelligence. As pointed out by Petrides (2017, p. 2), "in fact, there is arguably as much consensus about the emotional

intelligence construct as there is about the concept of general intelligence, a topic that has certainly seen its own share of conflict and controversy."

Many emotional intelligence theories—that is, generalized statements aimed at explaining the phenomenon—have been put forward since the inception of the emotional intelligence construct via the seminal conceptualization of emotional intelligence by Salovey and Mayer (1990), the seminal study by Mayer, DiPaolo, and Salovey (1990), and the best-selling popular literature book by Goleman (1995) titled *Emotional Intelligence*. In the literature now, four emotional intelligence theories are identified as the most prominent and salient. These theories are:

- Ability Emotional Intelligence (Mayer & Salovey)
- Emotional-Social Intelligence (Bar-On);
- Emotional Intelligence and Emotional Competence (Goleman & Boyatzis)
- Trait Emotional Intelligence (Petrides & Furnham).

Each of the four theories has an articulated model—a purposeful representation of the theory—and a measurement by which the model is operationalized.

Although the theories, models and measures of emotional intelligence have distinctive and sometimes controversial differences, which are addressed in upcoming sections, the literature has identified some meaningful ways in which the they complementary. As reported by Van Rooy and Viswesvaran (2007), cross-sectional research has shown that "emotional intelligence naturally increases with age, even when this construct is measured by different assessment modalities based on different conceptual models (Bar-On, 1997b, 2000; Mayer, Caruso, & Salovey, 1999)" (p. 263). Cherniss (2010b) identified these fundamental premises the theories and models share:

(a) “emotions play an important role in life” (p. 111); (b) people have differing capacities to perceive, process, and manage emotions; and, (c) the differences influence individual thinking, adaptation, and behavior. Also, the emotional intelligence models and measurements all cover, to some extent, these intrapersonal and interpersonal matters: (a) emotion perception, (b), emotion regulation, (c) emotion understanding, and (d) emotion utilization (Ciarrochi, Chan, & Caputi, 2000; Petrides, 2000; Petrides & Furnham, 2003; Stein, Papadogiannis, Yip, Sitarenios, 2009). Additionally, Rude (2013) noted another common theme is empathy, which Salovey and Mayer defined in their seminal emotional intelligence article as “the ability to comprehend another’s feelings and to experience them oneself (1990, p. 195). Further, research on emotional intelligence has indicated that people with high emotional intelligence “tend to be more socially competent, to have better quality relationships, and to be viewed as more interpersonally sensitive than those lower in emotional intelligence (Brackett, Rivers, Shiffman, Lerner, & Salovey, 2006; Brackett, Warner, & Bosco, 2005; Lopes, Brackett, Nezlek, Schütz, Sellin, & Salovey, 2004; Lopes, Salovey, Côté, & Beers, 2005; Lopes, Salovey, & Straus, 2003)” (Mayer, Salovey, & Caruso, 2008, p. 511). Lastly, the theoretical and empirical literature have shown that “it is both important and possible to educate people to be emotionally intelligent” (Bar-On, 2007, p. 11; Goleman, 1998; Petrides, 2017; Rude, 2013).

The four most prominent emotional intelligence theories are presented in the next section. Their respective models are described, along with the strengths and concerns expressed in the literature. Also, discussed are the measurements that operationalize the theories and models, as well as the strengths and concerns about the measurements put forward in the often-fierce point counter-point scholarly discourse. The review of the

literature about approaches to emotional intelligence is delimited to the scholarly literature and the four most prominent emotional intelligence approaches.

Ability Theory of Emotional Intelligence. This section addresses the landmark first theory of emotional intelligence that was daringly postulated in the scholarly literature—the ability theory of emotional intelligence. The review begins with the theory's definition of emotional intelligence, key points about the theory, and highlights in the evolution of the theory. Second, the model that represents the theoretical conceptualization is presented. Key aspects of the model are described, two diagrams illustrate its evolution, and the strengths and salient concerns from the scholarly discourse about the theory and model are presented. Third, the primary measurements used to operationalize the theory and model are presented. This includes brief descriptions of the measurements, and the strengths and examples of the salient empirical issues expressed in the literature.

The ability theory of emotional intelligence was boldly proffered in the scholarly literature by Salovey & Mayer (1990). At the time, the theory defined emotional intelligence as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990, p. 189). Key points in the originally postulated theory were that people have different abilities for problem solving in areas related to emotion, and when "people approach life tasks with emotional intelligence, they should be at an advantage for solving problems adaptively" (Salovey & Mayer, 1990, p. 200). The first study (Mayer, DiPaolo, & Salovey, 1990) that explored a component of this theory of intelligence found there was a general ability to perceive emotions visually, and that was

strongly associated with showing empathy. From the ability theory perspective, empathy is considered a trait or disposition, and emotional intelligence "is considered a special class of mental attributes, either cognitive capacities parallel but separate from traits (e.g. McCrae & Costa, 1996), or as a distinct class of traits referred to as ability or cognitive traits (e.g. Cattell & Warburton, 1967; p, 10; Mayer, 1995, 859-854)" (Caruso, Mayer, & Salovey, 2002, p. 61).

For proposing a new construct connecting emotion and intelligence, Mayer and Salovey (1993) received criticism in anonymous reviews of their articles and a symposium in which they discussed the emotional intelligence construct. The concerns raised were that intelligence "was an inappropriate and misleading metaphor" (Mayer & Salovey, 1993, p. 434), the emotional intelligence construct was a re-description of social intelligence, and the construct falsely cast dispositions as abilities. These early criticisms continue to be part of the ongoing scholarly discourse about emotional intelligence. Additionally, Mayer and Salovey (1993) noted they received an objection that they were "'rocking the boat' by connecting a heretofore less controversial area (emotion) with a controversial one (intelligence)" (p. 434). That Mayer and Salovey were making a connection between emotion and intelligence was important.

Over the years, Mayer, Salovey, and colleagues continued to evolve the theory. As part of this, Mayer and Salovey (1997) expanded the definition of emotional intelligence:

> Emotional intelligence involves the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings which they facilitate thought; the ability to understand emotion

and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth (p. 10).

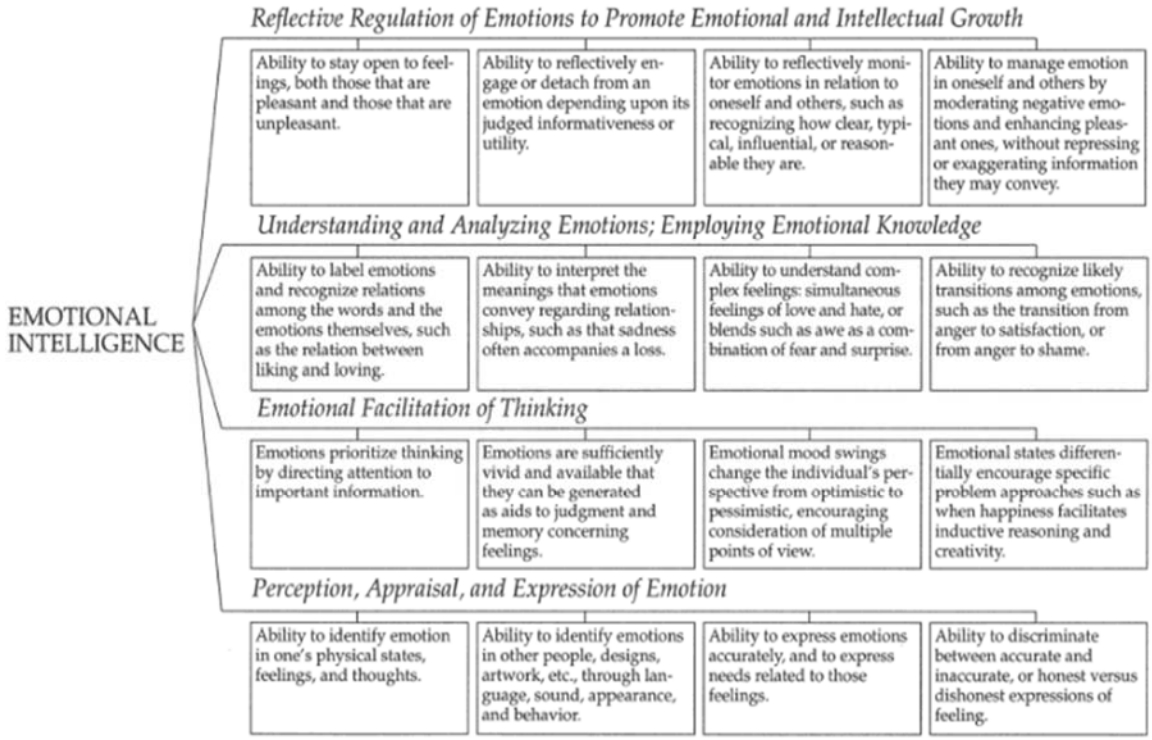
Nearly a decade later, to help elucidate the theory of emotional intelligence, Mayer and Salovey (2016) identified seven principles as underpinning the ability theory of emotional intelligence:

- Principle 1: Emotional intelligence is a mental ability (p. 290);
- Principle 2: Emotional intelligence is best measured as an ability (p. 291);
- Principle 3: Intelligent problem solving does not correspond neatly to intelligent behavior (p. 291);
- Principle 4: A test's content—the problem-solving area involved—must be clearly specified as a precondition for the measurement of human abilities (p. 291);
- Principle 5: Valid tests have well-defined subject matter that draws out relevant human mental abilities (p. 292);
- Principle 6: Emotional intelligence is a broad intelligence (p. 292); and,
- Principle 7: Emotional intelligence is a member of the class of broad intelligences focused on hot information processing (p. 292).

Hot intelligences "concern abilities involving the processing of highly charged and personally significant information, such as emotions, personality, and social relations" (Schneider et al., 2016, p. 1). Examples of hot intelligences include personal intelligence and social intelligence (Mayer, Caruso, & Salovey, 2016). Cool information processing (i.e. intelligence) involves impersonal features of information and impersonal memories (Schneider, Mayer, & Newman, 2016).

Four-Branch Model of Emotional Intelligence. To purposefully represent the ability theory of emotional intelligence, a model was developed (Mayer & Salovey, 1997) (Figure 2.1). The focus of four-branch model of emotional intelligence is "a person's skill in recognizing emotional information and carrying out abstract reasoning using this emotional information" (Caruso, Mayer, & Salovey, 2002, p. 306).

Figure 2.1 **Four-Branch Model of Emotional Intelligence (1997)**



Note. Figure 1.1, p. 11, in Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence. In P. Salovey & D. J. Sluyter (Eds.). *Emotional development and emotional intelligences*. New York, NY: BasicBooks

The name of the model was derived from its four-branch hierarchical structure, although in the literature it also has been referred to as the ability model. The four branches, (Mayer & Salovey, 1995, 1997; Salovey & Mayer, 1990) from the highest to lowest level were:

- Branch 4: Reflective regulation of emotions to promote emotional and intellectual growth;
- Branch 3: Understanding and analyzing emotions, employing emotional knowledge;
- Branch 2: Emotional facilitation of thinking; and,
- Branch 1: Perception, appraisal, and expression of emotion,

Each branch represented and described a mental ability, or intelligence, and a related set of skills (Mayer & Salovey, 1997) focused on emotion related information processing and measured with ability-based scales (Mayer, Salovey, Caruso, & Sitarenios, 2004). These mental abilities (branches) were viewed as developing from childhood into adulthood (Mayer, Roberts, & Barsdale, 2008) with each ability having a distinct developmental trajectory (Mayer, Salovey, & Caruso, 2008). Additionally, strength in the lower basic mental abilities (branches) was required before the higher level mental abilities (branches) could be achieved (Mayer, Salovey, & Caruso, 2008).

Caruso, Mayer, & Salovey (2002) asserted the four-branch (i.e. ability) model has four core strengths. First, the model concentrated on how emotions facilitate thinking, problem-solving, and adaptive behavior. Second, the model supported the concept of emotional intelligence as being skill-based…[and] did not emphasize personality dispositions or traits per se" (Caruso et al., 2002, p. 61). Third, the model was

empirically validated. Fourth, the model offered insights to understanding leadership and potentially predicting of effective leadership. Additionally, Daus and Ashkanasy (2005) contend that this model "behaves psychometrically just as an intelligence should; and it demonstrates solid convergent and discriminant validity to support its claims to be an intelligence" (p. 454).

In the literature, a broad range of concerns about the ability theory and four-branch model of emotional intelligence have been expressed. Theoretical, opinion, and empirical concerns were raised. Following are select examples of concerns that illustrate the nature of the scholarly discourse about the ability theory and model of emotional intelligence.

One of the most prominent points of criticism has been the identification of emotional intelligence as a type of intelligence. For example, Locke (2005) argued the ability theory of emotional intelligence is conceptually "invalid because it is not a form of intelligence" (p. 425). Locke (2005) expressed that intelligence is about a person's ability to formulate concepts and grasp abstractions, and he posited that being aware of one's own emotions is a matter of choosing to focus inward and does not require any type of intelligence beyond general intelligence. A second example comes from, Izard (2001) and Zeidner, Matthews, and Roberts (2009), who contended that often emotional responses depend on "automatically generated, socially selected, adaptive emotional responses that are thought to be influenced by an individual's temperament" (Zeidner et al, 2009, p. 83)—and temperaments are personality dispositions, not intelligence. Additionally, Zeidner et al. (2009) argued that emotional responses "evolve and/or are learned with minimal cognitive involvement" (p. 83). A third example is Antonakis

(2009) who argued that utilizing emotions during decision-making is not intelligence, rather it "is simply the natural use of emotions for normal adaptive functioning: it occurs implicitly and it is automatized" (p. 255).

Aspects of the development of the four-branch model are another area of concern raised in the literature. For example, concern was expressed about the lack of attention to the concept of emotional knowledge. Izard (2001) pointed out that emotional knowledge was a related construct and "hot topic in the 1980s and 1990s" (p. 250). However, the conceptual development of the ability theory and four-branch model of emotional intelligence did not reference or engage the emotional knowledge developmental research or construct despite its conceptual and operational overlap with the first and fundamental branch of perception: appraisal, and expression of emotion. A second example relevant to the development of the model was specific to the four branches, which Mayer and Salovey (1997) defined as hierarchically structured. Van Rooy, Whitman, and Viswesvaran (2010) asked if the lower branches are in fact prerequisites for the higher branches—"is perception of emotion a prerequisite for management of emotions" (p. 151). Van Rooy et al. contended that "at a minimum, the incremental validity of the higher branches over the lower branches needs to be demonstrated" (p. 151).

A third area of concern cited in the literature had to do with the model's connection with personality dispositions (i.e. traits). Hughes and Evans (2016) posited that the ability model needs to integrate personality, specifically trait emotional intelligence. In particular, Hughes and Evans (2016) focused on the emotion regulation branch of the model, the highest order branch, and cited that "personality traits (e.g. trait emotional intelligence) shape individual preferences, attentional focus, interpersonal

behavior, and motives, all of which are likely to influence the choice of emotion regulation strategy (e.g. Côté, DeCelles, McCarthy, Kleef, & Hideg, 2011)" (p. 331). To illustrate their point, Hughes and Evans (2016) proffered that the frequency of positive emotional interpretations could differ between two individuals with equally high ability emotional intelligence but different levels of trait optimism.

A final concern about the ability theory of emotional intelligence was the "'curse of emotion' phenomenon" (Antonakis, 2009, p. 250). Antonakis (2009) opined the 'curse of emotion' phenomenon would be common since "the more individuals are aware of their own emotional states, the more they believe others are aware of these states, and the more they will be bogged down by these emotional states" (p. 250). Collectively, the concerns expressed in the literature by these scholars exemplify the kinds of concerns that were being expressed about the ability theory and four-branch (i.e. ability) model. Partially in response to the scholarly discourse, the four-branch model of emotional intelligence continued to evolve. In 2016, the model (Table 2.1) was substantively revised by Mayer, Caruso, & Salovey in these ways:

- Added more instances of problem-solving (p. 293);
- Mental abilities involved in emotional intelligence remain to be determined (p. 293);
- Ability emotional intelligence is a broad, hot intelligence and invites comparisons with personal and social intelligences (p. 294);
- Ability emotional intelligence is positioned with other hot intelligences (p. 295); and,
- Ability emotional intelligence employs specific forms of problem solving (p. 296).

Table 2.1 **Four Branch Model of Emotional Intelligence (2016)**

The Four Branches	Types of Reasoning
4. Managing emotions	• Effectively manage others' emotions to achieve a desired outcome[b] • Effectively manage one's own emotions to achieve a desired outcome[b] • Evaluate strategies to maintain, reduce, or intensify an emotional response[b] • Monitor emotional reactions to determine their reasonableness • Engage with emotions if they are helpful; disengage if not • Stay open to pleasant and unpleasant feelings, as needed, and to the information they convey
3. Understanding emotions	• Recognize cultural differences in the evaluation of emotions[c] • Understand how a person might feel in the future or under certain conditions (affective forecasting)[c] • Recognize likely transitions among emotions such as from anger to satisfaction • Understand complex and mixed emotions • Differentiate between moods and emotions[c] • Appraise the situations that are likely to elicit emotions[c] • Determine the antecedents, meanings, and consequences of emotions • Label emotions and recognize relations among them
2. Facilitating thought using emotion[d]	• Select problems based on how one's ongoing emotional state might facilitate cognition • Leverage mood swings to generate different cognitive perspectives • Prioritize thinking by directing attention according to present feeling • Generate emotions as a means to relate to experiences of another person[c] • Generate emotions as an aid to judgment and memory
1. Perceiving emotion	• Identify deceptive or dishonest emotional expressions[b] • Discriminate accurate vs. inaccurate emotional expressions[b] • Understand how emotions are displayed depending on context and culture[c] • Express emotions accurately when desired • Perceive emotional content in the environment, visual arts, and music[b] • Perceive emotions in other people through their vocal cues, facial expression, language, and behavior[b] • Identify emotions in one's own physical states, feelings, and thoughts

Note. [a]The bullet-points are based on Mayer and Salovey (1997) except as indicated in superscripts b and c. Within a row, the bulleted items are ordered approximately from simplest to most complex, bottom to top. The four-branch model depicts the problem-solving areas of emotional intelligence and is not intended to correspond to the factor structure of the area.
[b]An ability from the original model was divided into two or more separate abilities.
[c]A new ability was added.
[d]Note that the Branch 2 abilities can be further divided into the areas of *generating emotions to facilitate thought* (the bottom two bulleted items) and *tailoring thinking to emotion* (the top three bulleted items).

Note. Table 1 in Mayer, J. D., Caruso, D. R., & Salovey, P. (2016). The ability model of emotional intelligence: Principles and updates. *Emotion Review*, 8(4), 290-300.

Measurement: Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT).

This section addresses the measurements that operationalized the four-branch model of the emotional intelligence. The ability emotional intelligence measurement has been described as a crucial differentiator from the other emotional intelligence models (Petrides, 2009). In this section, a brief chronology about the development and evolution of the measurements is presented, followed by an overview of the current measurement, MSCEIT V2.0. Then, the strengths of the measurement are identified and the salient concerns and issues identified in literature are presented.

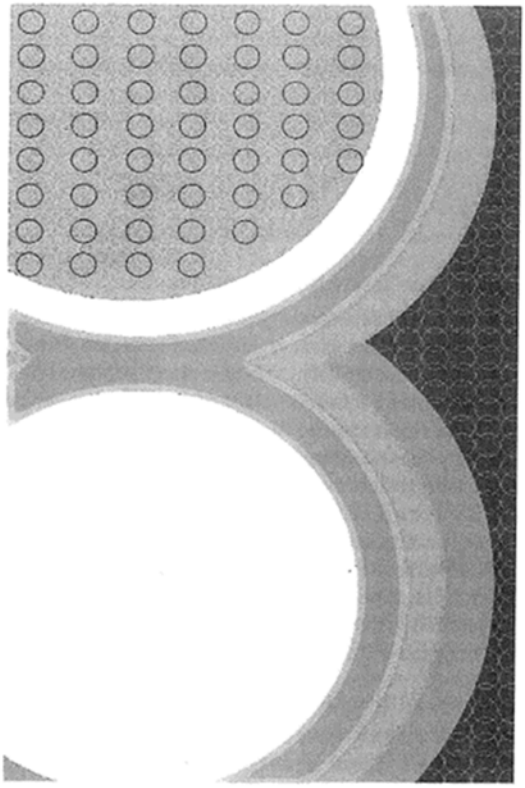
The first ability-based measure for the four-branch (i.e.) ability emotional intelligence model was Mayer, Caruso, and Salovey's (1999) Multifactor Emotional Intelligence Scale (MEIS). The MEIS was rooted in a decade of theoretical and empirical work (Mayer, Caruso, Salovey, & Sitarenios, 2001). The test was revised into the similar yet more reliable Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), which subsequently was revised into the MSCEIT V2.0 (Mayer, Salovey, Caruso, & Sitarenios, 2003) utilized today. The MSCEIT V2.0 was developed to provide a more psychometrically sound measure of ability-based emotional intelligence in response to the scholarly "debate over the scoring, reliability, and factor structure" (Mayer et al. 2003, p. 97).

The MSCEIT V2.0 is a 141-item scale—less than one third of the items on the MEIS test—that may be completed on paper or online (Mayer, Salovey, Caruso, & Sitarenios, 2003). Both the MSCEIT and MSCEIT V2.0 instruments are available through Multi-Health Systems (MHS) Assessments (https://www.mhs.com/). The MSCEIT V2.0 and takes about 45 minutes to complete (Brackett, Rivers, & Salovey, 2011).

The MSCEIT V2.0 measures the four branches of ability emotional intelligence through a series of performance tasks (Mayer et al., 2003). This performance-based approach is important because it is a completely different approach than the measures of the other models of emotional intelligence. The first branch, perceiving emotions, is measured with faces tasks (participants indicate the extent specific emotions are present in a series of faces) and pictures tasks (participants use cartoon faces to rate emotions

present in a series of landscapes and abstract designs). A sample abstract design from the MSCEIT is presented in Figure 2.2.

Figure 2.2 **Sample Abstract Design from the MSCEIT**



Note. Figure 15.1 on page 330 of Mayer, J. D., Caruso, D. R., & Salovey, P. (2000). Selecting a measure of emotional intelligence. In R. Bar-On & J. D. Parker (Eds.). *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace*, (pp. 320-342). San Francisco, CA: Jossey-Bass.

The second branch, facilitating thought, is measured with sensations tasks (participants match sensations with emotions, for example how hot or cold is envy) and facilitation tasks (judging moods linked to cognitive behaviors, for example whether joy assists with party planning). The third branch, understanding emotions, is measured with blends tasks (identifying emotions that combine to form other emotions, like malice is a combination of envy and aggression) and changes tasks (selecting emotions that result

from the intensification of other emotions). Finally, the fourth branch, managing emotions, is measured with emotion management tasks (judging which actions would be effective in obtaining a specific outcome) and emotional relationships tasks (judging which actions to use in management another person's feelings) (Mayer et al., 2003).

The MSCEIT V2.0 has a maximal-performance design, unlike the measures of the other emotional intelligence models, and Mayer, Salovey, Caruso, & Sitarenios (2003) contended that there are correct answers to the test. The correct answers were identified objectively via two methods: general and expert consensus scoring. In the general consensus scoring method, the participant's answers are scored against the consensus scores of the normative sample (Brackett, Rivers, & Salovey, 2011). For the expert consensus scoring, the same process is utilized except with a sample of experts. The MSCEIT V2.0 experts sample was a group of 21 psychologists and philosophers from the International Society for Research on Emotions (ISRE) who provided their expert judgement and endorsed and answered the MSCEIT V2.0 questions (Brackett, Rivers, & Salovey, 2011; Mayer et al., 2003. The experts' pooled responses provide the correct answers for the test (Mayer, Salovey, & Caruso, 2008).

Mayer et al. (2003), Mayer, Roberts, and Barsdale (2008), and Brackett, Rivers, and Salovey (2011) argue that the MSCEIT V2.0 is an intelligence test in these ways:

- The factor structure is congruent with the four branches of the theoretical model;
- The four abilities have expected convergent and discriminant validity;
- Emotional intelligence develops with age and experience; and,
- The abilities are measured objectively.

Scholarly discourse in the literature has countered that the MSCEIT is fundamentally different from cognitive intelligence tests (Brody, 2004; Roberts, Schulze, O'Brien, MacCann, Reid, & Maul, (2006). Brody (2004) argued that cognitive ability tests measure performance and assess the ability to solve problems, whereas the MSCEIT V2.0 assesses knowledge of emotions, and he stated, "this distinction is fundamental" (p. 234). Additionally, Brody (2004), Conte (2005), Matthews, Zeidner, and Roberts, (2002), and Roberts, Zeidner, and Matthews (2001) emphasized that a primary benchmark for an intelligence task is the presence of a veridical correct answer, and these scholars stressed that the MSCEIT V2.0 does not meet this benchmark. The MSCEIT V2.0, as well as the earlier versions of the test, uses general consensus and expert consensus scoring to engineer a "correct" answer by polling and then assesses the extent to which the test-taker's response matches the majority opinion. "Consensus scoring techniques are 'in direct contrast to traditional measures of intelligence where an objective measure of truth is considered' (Matthews et al., 2002, p. 186)" (Conte, 2005, p. 435). Siegling et al. (2015) pointed out that consensus and expert scoring could also be affected by "vocabulary size (Wilhelm, 2005), conformity to social norms (Matthews et al., 2006), theoretical knowledge about emotions (Austin, 2010), stereotypical judgements (O'Sullivan, 2007)" (p. 383). Additionally, Roberts et al. (2001) identified psychometric and empirical limitations in using consensus scoring.

Another major concern with the MSCEIT V2.0, as well as the previous versions of the test, is the inherent subjectivity of emotional experience (Petrides, 2009, 2017; Roberts, Zeidner, & Matthews, 2001; Siegling et al., 2015; Watson, 2005). For the

interpersonal components of an emotional intelligence assessment, only the person answering the question is only available to the individual being assessed.

In the literature, numerous other concerns with the MSCEIT V2.0 have been identified. The concerns included: conceptual and logical inconsistencies, unstable factor structures, weak predictive and construct validity, latent trait issues, less than optimal reliability, post facto hypothesizing to explain results, partial support for the four branches (factors), and proportion scoring (Brody, 2004; Conte, 2005; Fiori & Antonakis, 2011; Legree, Mullins, & Psotka, 2016; Maul, 2012; O'Sullivan & Ekman, 2004; Palmer, Gignac, Manocha, & Stough, 2005). Lastly, although reliability at the total scale and branch levels was found to be good for the MSCEIT V2.0, most of the subscales were found to have relatively low reliability (Palmer et al., 2005).

To summarize, this section has addressed the first theory of emotional intelligence postulated in the scholarly literature—the ability emotional intelligence theory. The review encompassed the theory's definitions of emotional intelligence, key points about the theory, highlights in the evolution of the theory. The model representing the purposeful conceptualization of the theory was presented, and its strengths and the salient concerns from the scholarly discourse were presented. Third, the primary measurements used to operationalize the theory and model were presented, including its strengths and examples of the concerns expressed in the literature. The next section addresses the emotional and social intelligence theory postulated by Bar-On (1997).

Emotional-Social Intelligence Theory. This section addresses the theoretical framework for the emotional-social intelligence model postulated by Bar-On (2000, 2006, 2017) and the Emotional Quotient-Inventory (EQ-i) he developed (1997). First,

the theoretical framework for the Bar-On Model of Emotional-Social Intelligence (ESI) is presented. Then the definition of ESI utilized by the model is put forward and the model is described. Finally, the Bar-On EQ-I and its other related measurements are discussed, including the strengths of and concerns about the measurements as expressed in the literature.

The theoretical framework for the ESI model has five core components (Bar-On, 2000, 2006, 2010, 2017). The seminal theory in Bar-On's theoretical framework is Darwin's work on the important role of emotional expression for survival and adaptation (1872/1965). Building from Darwin, the ESI theory "stresses the importance of emotional expression and views the outcomes and socially intelligent behavior in terms of effective and successful adaptation" (Bar-On, 2006, p. 14). The second core theoretical component of the ESI theory is the concept of social intelligence postulated by Thorndike (1920), particularly the importance of social intelligence for human performance (Bar-On 2006, 2017). The definition of general intelligence put forward by Wechsler (1958), especially his ideas about the influence of non-cognitive and conative factors on intelligent behaviors (Bar-On, 2006, 2017) is another core component of the theoretical framework for the ESI theory. Another theoretical cornerstone is the alexithymia condition described by Sifneos (1967) based on his clinical observations of patients (Bar-On, 2006, 2017). Alexithymia— the inability to identify, recognize, express, or describe one's feelings—lies in the personality domain and is an affect and cognitive disturbance (Colman, 2015). The next cornerstone of the ESI theory is the concept of psychological mindedness posited by Appelbaum (1973) and described as "insightfulness, reflectiveness, introspectiveness, capacities for self-observation, self-

appraisal and self-awareness" (p. 35). The fifth and final component of the ESI theoretical framework is the theory of multiple intelligences and the concepts of intrapersonal and interpersonal intelligences, put forward by Gardner (1983). Although the theoretical framework for the ESI model and EQ-i measurement is grounded in the three emotional intelligence domains of emotion, intelligence, and personality, Bar-On (2006) emphasized that the EQ-i was not developed to measure personality traits or cognitive capacity.

Bar-On Model of Emotional-Social Intelligence. The creation of the Bar-On model of emotional-social intelligence (ESI) was largely informed by his development of the Bar-On Emotional Quotient-Inventory (EQ-i) (Bar-On, 2000, 2006). In Bar-On's descriptions of the ESI model, he described the development of the measurement tool and the reliability and validity of the measurement instrument. As emphasized by Schulze, Wilhelm, and Kyllonen (2007, p. 210), "the underlying theory was derived post-hoc to fit the empirically derived subscales."

According to the Bar-On ESI model, emotional-social intelligence is "a cross-section of interrelated emotional and social competencies, skills, and facilitators that determine how effectively we understand and express ourselves, understand others and related with them, and cope with daily demands" (Bar-On, 2006, p. 14). The model, presented in Table 2.2, consists of five key components:

1. The ability to recognize, understand, and express emotions and feelings;
2. The ability to understand how others feel and relate with them;
3. The ability to manage and control emotions;
4. The ability to manage change, adapt, and solve problems of a personal and interpersonal nature; and,

5. The ability to generate positive affect and be self-motivated (Bar-On, 2000, 2006).

Each component includes closely related competencies, skills and facilitators (Bar-On, 2000). According to the model, a person's intrapersonal ability is fundamental to the other emotional and social competencies, skills, and facilitators (Bar-On, 2006).

Table 2.2 **Bar-On Model of Emotional-Social Intelligence**

ESI Components	EQ-i Scales	Competencies & Skills Assessed
Intrapersonal	Interpersonal	Self- awareness and self-expression:
	Self-Regard	*To accurately perceive, understand, and accept oneself*
	Emotional Self-Awareness	*To be aware of and understand one's emotions*
	Assertiveness	*To effectively and constructively express one's emotions and oneself*
	Independence	*To be self-reliant and free of emotional dependency on others*
	Self-Actualization	*To strive to achieve personal goals and actualize one's potential*
Interpersonal	Interpersonal	Social awareness and interpersonal relationship:
	Empathy	*To be aware of and understand how others feel*
	Social Responsibility	*To identify with one's social group and cooperate with others*
	Interpersonal Relationship	*To establish mutually satisfying relationships and relate well with others*
Stress Management	Stress Management	Emotional management and regulation:
	Stress Tolerance	*To effectively and constructively manage emotions*
	Impulse Control	*To effectively and constructively control emotions*
Adaptability	Adaptability	Change management:
	Reality-Testing	*To objectively validate one's feelings and thinking with external reality*
	Flexibility	*To adapt and adjust one's feelings and thinking to new situations*
	Problem-Solving	*To effectively solve problems of a personal nature and interpersonal nature*
General Mood	General Mood	Self-Motivation:
	Optimism	*To be positive and look at the brighter side of life*
	Happiness	*To feel content with oneself and life in general*

Note. Adapted from R. Bar-On. (2006). The Bar-On model of emotional-social intelligence (ESI). *Psicothema*, 18, Supplement, 13-25.

Measurement: Bar-On Emotional Quotient Inventory (EQ-i). This section addresses the measurements that operationalize the Bar-On Model of ESI—the Emotional Quotient-Inventory (EQ-i) and the 360 EQ-i. A brief chronology about the development and evolution of the measurements is presented, followed by an overview of the

measurements. Then, the strengths of the measurements are identified and the salient concerns expressed in the literature are presented.

The development of the Emotional Quotient-Inventory (EQ-i) had an instrumental role in the creation of the Bar-On Model of Emotional-Social Intelligence (ESI) The EQ-i measurement was developed in six major stages over a period of 17 years beginning in the early 1980s. Bar-On (2000, 2006) explicitly reported these stages:

- Stage 1: Identification and clustering of emotional and social competencies thought to impact effectiveness and psychological well-being, began in 1983 and was based on a review of the literature and the scholar's clinical and academic experience;
- Stage 2: Definition of the individual clusters of competencies, skills, and facilitators;
- Stage 3: Generation of approximately 1,000 items based on the scholar's clinical and academic experience, a review of the literature, and input from healthcare practitioners;
- Stage 4: Determination of the 15 primary scales and 133 items for the measurement instrument based on theoretical considerations and factor analysis statistical findings;
- Stage 5: Norming the final measurement instrument in 1996 with more than 8,300 adults;
- Stage 6: Continuation of the norming and validation of the instrument.

It has been noted that the development process for the EQ-i was "an extensive program of development work in many countries across the world" (Zeidner, Matthews, & Roberts,

2009, p.113). More importantly, the process of developing the EQ-i measurement was instrumental to the creation of the Bar-On Model of ESI (Bar-On, 2000, 2006).

The EQ-i is "a self-report measure of emotionally and socially competent behavior that provides an estimate of one's emotional and social intelligence" (Bar-On, 2000, p. 364). The EQ-i assesses specific abilities "considered the *essence* (italics in original), or *core components* (italics in original), of emotional and social intelligence" (Bar-On, 2000, p. 373). The instrument comprises 133 items and utilizes a five-point Likert scale ranging from "'very seldom or not true of me' to 'very often true or true of me'" (Bar-On, 2000). The EQ-i self-report instrument takes about 40 minutes to complete, has been translated into to more than 30 languages, and is utilized around the world (Bar-On, 2006; Bharwaney, Bar-On, MacKinlay, 2007/2011). The test generates emotional quotient (EQ) scores for the five composite scales, the fifteen subscales, and an overall score (see Table 2.2) (Bar-On, 2006, 2006; Bharwaney et al. 2007/2011). In addition to the EQ-i self-report instrument, shorter versions of the measurement instrument have been developed, including 125- and 51-item versions for adults, and 60- and 30-item youth versions; and, a multi-rater 360-degree assessment was developed (Bharwaney et al., 2007/2011). All versions of the test are published by Multi-Health Systems (MHS) Assessments. For academic/research purposes there is a reduced per-participant fee.

The EQ-I measurement was the first test of emotional intelligence published by a psychological test publisher—Multi-Health Systems Assessments (Bar-On, 1997a), the first to be peer-reviewed by the Buros Institute for Mental Measurement (1999), and the first to be published in the *BUROS Mental Measurement Yearbook* (Plake & Impara,

1999). The rigorous development process provided psychometric properties for the EQ-I (Bar-On, 2006). The EQ-i has undergone extensive psychometric testing, and this has been well-chronicled (Bar-On, 1997b, 2000; Geher, 2004; Plake & Impara, 1999). Additionally, assessing the validity of a concept by examining the psychometric properties of the scales designed to measure the concept is a common approach in psychology, and particularly in the areas of emotional and social intelligence (e.g. Bar-On, 2006; Newton, Day, & Catano, 2000; Petrides & Furnham, 2000b; Salovey, Mayer, Goldman, Turvey, & Palfai, 1995; Van Rooy & Viswesvaran, 2004). Bharwaney et al. (2077/2011) summarized EQ-i psychometric research findings, which have shown the EQ-i:

- Possesses good reliability and is "very consistent and stable" (p. 22);
- Possesses good construct validity, based on 14 studies and an overall construct validity coefficient of 0.58; and,
- Possesses a fairly high predictive validity, based on 25 studies with more than 23,000 individuals worldwide and an average validity coefficient of 0.56.

The above reliability and validity findings for the EQ-i, the rigorous development process of the measurement, and the international utilization of the measurement are considered key strengths of the Bar-On EQ-i.

In the literature, a range of concerns about the Bar-On ESI model and EQ-i measurement have been expressed. Theoretical, opinion, and empirical concerns were raised. Following are three examples of salient concerns that illustrate the nature of the scholarly discourse about the Bar-On ESI model and EQ-i measurement.

One of the salient concerns expressed in the literature is about the instability of the dimensional/factor structure of the ESI model and its EQ-i measurement (Conte, 2005; Conte & Dean, 2006/2013; Livingstone & Day, 2005; Matthews et al., 2002, 2007; Palmer, Manocha, Gignac, & Stough, 2003; Petrides & Furnham, 2001). Bar-On (1997a, 1997b, 2000, 2006) developed and described the ESI model and its EQ-i measurement as having a hierarchical structure consisting of five composite factors, fifteen subfactors, and an overall factor. However, using a normative sample of nearly 4,000 participants in the United States and Canada, Bar-On (2000) found the results of an exploratory factor analysis showed that a thirteen-factor structure "afforded the most meaningful interpretation theoretically" (p. 369). Further, using the same data set, Bar-On (2006) found the results of a confirmatory factor analysis "clearly suggest a ten-factor structure" (p. 371). These findings contradict the ESI model and EQ-i measurement posited by Bar-On (1997a, 1997b, 2000, 2006). Additionally, a study by Palmer, Manocha, Gignac, and Stough (2003) identified "several anomalies in the factor analysis methodology utilized by Bar-On (1997a), and his interpretation of the results that render the dimensional structure of the EQ-i unclear" (p. 1191). Further, Palmer et al. (2003) conducted a series of exploratory and confirmatory factor analyses and found evidence for a general factor and six primary factors, rather than the five primary factors posited by Bar-On (1997a, 1997b, 2000, 2006). However, when Petrides and Furnham (2001) utilized a confirmatory factor analysis methodology, that study found the EQ-i measure to be unifactorial. Further, the Livingstone & Day (2005) study found that confirmatory factor analyses "did not support" (p. 772) the factor structure posited by Bar-On (1997a, 1997b, 2000, 2006). Thus, empirically supported concerns about the validity of the

dimensional/factor structure of the ESI model and its EQ-i measurement have been surfaced in the literature (e.g. Conte, 2005; Conte & Dean, 2006/2013; Livingstone & Day, 2005; Matthews et al., 2002, 2007; Palmer et al., 2003; Petrides & Furnham, 2001).

Another concern raised in the literature is about the "substantial" (Brackett & Mayer, 2003b, p. 11) overlaps between the EQ-i and general intelligence, and the EQ-i and personality (e.g. Conte, 2005; Conte & Dean, 2006/2013; Daus, 2006/2013; Matthews, Zeidner, & Roberts, 2007; Zeidner, Roberts, and Matthews, 2008). Bar-On (2000, 2006) emphasized the EQ-i was not developed to measure cognitive intelligence or personality, contending that "six studies…indicate that there is only minimal overlap between the EQ-i and tests of cognitive (academic) intelligence" (Bar-On, 2006, p. 17). However, as highlighted by Conte (2005), Gowing (2001) found the average correlation among EQ-i subscales resembled correlations among components of traditional intelligence tests (Conte, 2005, p. 5). Also, Matthews, Emo, Roberts, & Zeidner (2006) contend that Bar-On's (2000) "near zero correlations might be construed by some as problematic since the EQ-i was intended to measure a type of intelligence" (p. 14). Further, as noted by Daus (2013), the EQ-I "suffers from substantial overlap with the Big Five" (p. 309) personality dimensions. This has been empirically evinced by studies such as Brackett & Mayer (2003b), Grubb & McDaniel (2007), and Matthews et al. (2002) which found the EQ-i had high correlations with the Big Five personality traits. According to Zeidner, Roberts, and Matthews (2008), the EQ-i measurement is "the most egregious example" (p. 66) of an emotional intelligence measure overlapping with standard personality traits. Further, as Conte and Dean (2006/2013) highlighted, many of the conclusions drawn by Bar-On (1997b) regarding the predictive value of the ESI

model and the EQ-i measurement were based on unpublished studies. "Few peer-reviewed studies have examined whether the EQ-i provides incremental predictive validity above the contribution of established predictors such as the Big Five personality dimensions and general mental ability" (Conte and Dean, 2006/2013, p. 64-65).

A third important concern raised in the literature is about the fakability of the EQ-i short form measurement (Grubb & McDaniel, 2007). The study had 229 participants complete the measurement in both honestly and as "faking a good condition" (Grubb & McDaniel, 2007, p. 43). Results of the study showed that when faking, participants were able to increase their scores by .83 SD. Even though indexes of the measurement were able to identify 31% of the participants who faked their responses, the majority of the participants were able to increase their scores with fake responses and were not identified as doing so (Grubb & McDaniel, 2007). As stated by Grubb and McDaniel (2007, p. 43), "the relative ease with which respondents can substantially raise their scores limits the value" of this emotional intelligence measurement.

This section has addressed the theoretical framework for the emotional-social intelligence model postulated by Bar-On (2000, 2006, 2017) and the Emotional Quotient-Inventory (EQ-i) he developed (1997a, 1997b). First, the theoretical framework for the Bar-On Model of Emotional-Social Intelligence (ESI) was presented. Next, the model representing the purposeful conceptualization of the theory was described, including presentation of the model's definition of emotional-social intelligence and identification of the key components comprising the model. Then, the Bar-On EQ-I (1997a, 1997b), the primary measurement that operationalizes the theory and model was presented. The strengths of the model and measurement were described, and the section concluded by

presenting the three salient concerns expressed in the literature about the model and measurement. The next section addresses the emotional intelligence and competency theories, models, and measurements.

Emotional Intelligence and Emotional Competence Theories. This section begins by reviewing the emotional intelligence and emotional competence theories postulated by Goleman (1995/2006, 1998b)—including definitions and the theoretical and empirical scaffolding for the theories. Second, the model that represents the theoretical conceptualizations of both theories is presented. Third, the measurement used to operationalize the model is put forward and described. Additionally, concerns about the theories, models, and measurement—as expressed in the literature—are addressed.

Goleman (1995/2006) is widely acknowledged for popularizing the term and general concept of emotional intelligence. The theory of emotional intelligence postulated by Goleman is woven throughout popular literature 1995 book, which "was on the New York Times bestseller list for a year-and-a-half, with more than 5,000,000 copies in print worldwide in 40 languages. …and named one of the 25 'Most Influential Business Management Books' by *TIME Magazine*" (danielgolemaninfo.com). Goleman published numerous other emotional intelligence-related books in the popular literature stream as well as articles in the *New York Times* and *Harvard Business Review*, among other popular publications. Further, *The Harvard Business Review* called Goleman's 1998 article *What Makes a Leader* (Goleman,1998a) among its ten must read essential articles (*Harvard Business Review*, 2010). The practitioner and business community perceived this this acclaim in the popular literature as a strength, and as Landy (2005) noted, "the enthusiasm of the business community…seems to be playing a large role in

the staying power of the construct. There is nothing wrong with that enthusiasm" (p. 412). Additionally, as noted by Zeidner, Matthews, and Roberts (2009), Goleman's 1995 book "sets out a comprehensive account of emotional intelligence and its relevance to society" (p. 10).

However, Landy (2005) also called out the "tension between more academic researchers (e.g. Salovey, Caruso, and Mayer) and the more commercial researchers (e.g. Goleman)" (p. 412.) For example, "Mayer (1999) cautioned the 'popular literature' implication…appears overly enthusiastic at present and unsubstantiated by reasonable scientific standards (p. 50)" (Landy, 2005, p. 412). Further, as asserted by Antonakis (2000), there are "some (e.g. Goleman, Boyatzis, & McKee, 2002), who seem to care more about selling books than advancing science" (p. 247).

The scaffolding for the emotional intelligence theory postulated by Goleman (1995) has five core components. The first component is the premise is that "all emotions are, in essence, impulses to act, the instant plans for handling life that evolution has instilled in us" (Goleman, 1995/2006, p. 6). In support of this premise, Goleman (1995/2006) referenced Darwin's theory of evolution and the Latin roots of the word emotion. Emotion in Latin is from the verb "motere" which means to move or set in motion, plus the 'e' prefix which in Latin means out, from, or moving away (Goleman, 1995/2006; Online Latin Dictionary, 2018).

The second component of the scaffolding for the theory of emotional intelligence is a neuroscience and biological perspective—that emotions have distinctive neurological and physiological shifts and states that occur in the human body during different kinds of emotional responses (Goleman, 1995/2006). Additionally, the theory contends these

physical responses are shaped in part by one's life experiences, environment, and culture. The neurobiology work by LeDoux (e.g. 1986, 1987), such as his research in the area of "neural pathways by which the brain interprets the emotional significance of environmental events" (LeDoux, 1986, p. 237), provided a theoretical and empirical foundation for this aspect of the emotional intelligence theory postulated by Goleman (1995/2006).

The third scaffolding component of the emotional intelligence theory is the concept that people have inborn temperaments—personality dispositions or traits. Additionally, although temperaments are predetermined by neurochemistry, the theory contends that a person's temperaments are influenced by life experiences beginning in early childhood. As theoretical and empirical support for this, Goleman (1995/2006) referenced the research and work of Kagan (e.g. Kagan, Snidman, & Arcus, 1992) in the area of neurochemistry, nature, development, and dimensions of human temperaments. For example, Kagan et al. (1992) posited that:

> although very young infants are neither shy with strangers nor fearful in unfamiliar places, the presumption that the two temperamental types vary in reactivity of several circuits originating in the amygdala provides a clue as to which responses might serve as predictors of inhibited and uninhibited behavior in the second year (p. 172).

The fourth scaffolding component for the emotional intelligence competency theory is that a person's emotional learning and competence begins during infancy, is impacted by parenting. Additionally, Goleman (1995/2006) asserted there are common and crucial windows of opportunity during a person's lifetime—beginning in infancy and

through to adulthood—in which a person's emotional development may be nurtured, enhanced, or hampered. As theoretical and empirical support for this, Goleman (1995/2006) referenced the research and findings of Brazelton (e.g. 1992). According to Brazelton (1992), "by school age, family and caregivers have already prepared the child for success or failure. The community has already helped or hindered the family's capacity to nurture the child's development" (p. 6).

The final component of the scaffolding for the emotional intelligence and competence theory is Gardner's theory of multiple intelligences, and in particular the concept of personal intelligence (Gardner 1983/2011). The concept of personal intelligence has two dimensions—intrapersonal and interpersonal intelligences. Intrapersonal has to do with introspection and self-reflection, while interpersonal is outward looking and has to do with sensitivity to others. Goleman referred to Gardner's theory as a "manifesto" (Goleman, 1995/2006, p. 38).

In the theory of emotional intelligence, Goleman (1995) defined emotional intelligence as "the other characteristics" (p. 34)—the characteristics that are not part of general intelligence (i.e. *g* or IQ). More specifically, emotional intelligence includes:

> Abilities such as being able to motivate oneself and persist in the face of frustration, to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think, to empathize and to hope (p. 34).

Empirical support for his theory of emotional intelligence is provided by Goleman (1995). Subsequently, Goleman (1998b) postulated a second theory—the theory of emotional competence. The framework for this theory is "based on a content analysis of

capacities that have been identified through internal research on work performance in several hundred companies and organizations worldwide (Goleman, 1998b)" (Emmerling 2008, p. 72).

According to Goleman (1998b), an emotional competence is "a learned capability based on emotional intelligence that results in outstanding performance at work" (p. 24). To further distinguish the difference between emotional intelligence and emotional competence, and to emphasize the perspective that emotional competence can be learned, Goleman (2006) stated:

> While our emotional *intelligence* (italics in original) determines our potential for learning the fundamentals of self-mastery and the like, our emotional *competence* (italics in original) shows how much of that potential we have mastered in ways that translate into on-the-job capabilities" (Goleman, 2006, p. xv).

The idea of utilizing competencies to predict work performance "reflects a tradition" (p. 73) in the scholarly literature, and Emmerling (2008, p. 73) cited these examples: Boyatzis, 1982; Bray, Campbell, & Grant, 1974; Kotter, 1982; Luthans, Hodgetts, & Rosenkrantz, 1988; McClelland, 1973; and McClelland, Baldwin, Bronfenbrenner, & Strodtbeck, 1958, among others. Goleman's building on the theoretically and empirically established concept of competencies has been considered a strength of the framework of the theories and model of emotional intelligence and competence (Emmerling, 2008).

The conceptualizations of the emotional intelligence and emotional competence theories are represented in a model (Goleman, 1998b). The formulation of the model and

the definitions of emotional intelligence and emotional competence have continuously evolved in the literature over the years. This is briefly described in the next section.

Emotional Intelligence and Emotional Competence Model. In this section, the most salient iterations of the model and definitions of emotional intelligence and emotional competence are presented. The initial model of emotional competence (Goleman, 1998b) is presented in Table 2.3. The model is composed of five emotional intelligence capacities—self-awareness, self-regulation, motivation, empathy, and social skills—and twenty-five emotional competencies. Goleman (1998b) described five characteristics that are shared by the five emotional intelligence capacities:

1. *Independent*: Each makes a unique contribution to job performance;
2. *Interdependent*: Each draws to some extent on certain others, with many strong interactions;
3. *Hierarchical*: The emotional intelligence capacities build upon one another;
4. *Necessary, but not sufficient*: Having an underlying emotional intelligence ability does not guarantee people will develop or display the associated competencies; and,
5. *Generic*: The general list is to some extent applicable to all jobs (p. 25-28).

In the 1998 model of emotional competence, the emotional competencies are clustered based on their respective underlying emotional intelligence capacity. Goleman (1998b) emphasized the competencies can be assessed and improved through learning. Additionally, the competencies have two levels. The first level comprises threshold

competencies, the minimal level to get a job done. The second level are distinguishing competencies, those competencies that set star performers apart and that are required for

Table 2.3 **Model of Emotional Competence (1998)**

Personal Competence *These competencies determine how we manage ourselves*	**Social Competence** These competencies determine how we handle relationships
Self-Awareness *Knowing one's internal states, preferences, resources, and intuitions* ▪ ***Emotional awareness:*** Recognizing one's emotions and their effects ▪ ***Accurate self-assessment:*** Knowing one's strengths and limits ▪ ***Self-confidence:*** A strong sense of one's self-worth and capabilities **Self-Regulation** *Managing one's internal states, impulses, and resources* ▪ ***Self-control:*** Keeping disruptive emotions and impulses in check ▪ ***Trustworthiness:*** Maintaining standards of honesty and integrity ▪ ***Conscientiousness:*** Taking responsibility for personal performance ▪ ***Adaptability:*** Flexibility in handling change ▪ ***Innovation:*** Being comfortable with novel ideas, approaches, and new information **Motivation** *Emotional tendencies that guide or facilitate reaching goals* ▪ ***Achievement drive:*** Striving to improve or meet a standard of excellence ▪ ***Commitment:*** Aligning with the goals of the group or organization ▪ ***Initiative:*** Readiness to act on opportunities ▪ ***Optimism:*** Persistence in pursing goals despite obstacles and setbacks	**Empathy** *Awareness of others' feelings, needs, and concerns* ▪ ***Understanding others:*** Sensing other's feelings and perspectives, taking an active interest in their concerns ▪ ***Developing others:*** Sensing others' development needs and bolstering their abilities ▪ ***Service orientation:*** Anticipating, recognizing, and meeting customers' needs ▪ ***Leveraging diversity:*** Cultivating opportunities through different kinds of people ▪ ***Political awareness:*** Reading a group's emotional currents and power relationships **Social Skills** *Adeptness at inducing desirable responses in others* ▪ ***Influence:*** Wielding effective tactics for persuasion ▪ ***Communication:*** Listening openly and sending convincing messages ▪ ***Conflict management:*** Negotiating and resolving disagreements ▪ ***Leadership:*** Inspiring and guiding individuals and groups ▪ ***Change catalyst:*** Initiating or managing change ▪ ***Building bonds:*** Nurturing instrumental relationships ▪ ***Collaboration and cooperation:*** Working with others toward shared goals ▪ ***Team capabilities:*** Creating group synergy in pursuing collective goals

Note. Adapted from Table 1, p. 26-27, in D. Goleman, (1998). *Working with emotional intelligence.* New York, NY: Bantam Books.

exceptional performance. Following competency cluster analyses and an integration of other research and work by Boyatzis and Goleman, a reformulated and descriptive definition of emotional intelligence was put forward (Boyatzis, Goleman, & Rhee, 2000):

> Emotional intelligence is observed when a person demonstrates the competencies that constitute self-awareness, self-management, social awareness, and social skills at appropriate times and ways in sufficient frequency to be effective in the situation (p. 344).

Boyatzis et al. (2000) noted the term emotional intelligence could be misleading and convey a connection with *g*—general intelligence—and reiterated that the theory of emotional intelligence deals with noncognitive abilities.

Based on the cluster analysis and other statistical analyses by Boyatzis, the model of emotional intelligence and emotional competence was refined. The reformulated model (Goleman, 2001) is presented in Table 2.4. In this new model, the five emotional intelligence capacities were consolidated into four domains: self-awareness, self-management, social awareness, and relationship management (Boyatzis et al., 2000; Goleman, 2001). The 25 competencies were collapsed to 20, and the competencies are synergistically clustered to support facilitate each other (Boyatzis et al., 2000; Goleman, 2001). Additionally, the domains and competencies fall into two categories: a) recognition of emotions in oneself and others, and b) regulation of emotions in oneself and others (Boyatzis et al., 2000; Goleman, 2001).

Table 2.4 **Model of Emotional Intelligence and Competence (2001)**

	Self Personal Competence	**Other** Social Competence
Recognition	**Self-Awareness** - Emotional self-awareness - Accurate self-assessment - Self-confidence	**Social Awareness** - Empathy - Service orientation - Organizational awareness
Regulation	**Self-Management** - Self-control - Trustworthiness - Conscientiousness - Adaptability - Achievement drive - Initiative	**Relationship Management** - Developing others - Influence - Communication - Conflict management - Leadership - Change catalyst - Building bonds - Teamwork & collaboration

Note. Adapted from Figure 3.1 in D. Goleman, (2001). An EI-based theory of performance. In C. Cherniss & D. Goleman (Eds.). *The emotionally intelligent workplace*, (pp. 27-44).

The emotional intelligence and competencies model continued to evolve over the years. In 2017 (Table 2.5) Goleman and Boyatzis described emotional intelligence as having four domains: self-awareness, self-management, social awareness, and relationship management. Within these domains, the 25 competencies were collapsed to 12 and described as "learned and learnable capabilities that allow outstanding performance at work or as a leader" (Goleman & Boyatzis, 2017 p. 2).

Table 2.5 **Model of Emotional Intelligence and Competence (2017)**

SELF-AWARENESS	SELF-MANAGEMENT	SOCIAL AWARENESS	RELATIONSHIP MANAGEMENT
Emotional self-awareness	Emotional self-control	Empathy	Influence
	Adaptability		Coach and mentor
	Achievement orientation	Organizational awareness	Conflict management
	Positive outlook		Teamwork
			Inspirational leadership

Note. From p. 3 of D. Goleman & R. E. Boyatzis. (2017). Emotional intelligence has 12 elements. Which do you need to work on? *Harvard Business Review*. Originally published on HBR.org, February 6, 2017.

A strong utility for the emotional intelligence and competencies across a broad array of domains—and at the individual, organizational, and societal levels—has been asserted by Goleman (e.g.1995, 1998a, 1998b, 2001, 2006) and Goleman, Boyatzis, and McKee (e.g. 2013, 2017). For example, at the individual level Goleman has linked his conception of emotional intelligence and competencies to predicting and improving individual occupational performance, career success, leadership effectiveness, academic achievement, social learning, parenting, romantic love and positive personal relationships, mental health, physical health, and overall life success, among other areas. Effective leadership is one area in particular that Goleman has emphasized as having a crucial connection to emotional intelligence. Goleman (1998b) asserted that "effective leaders are alike in one crucial way: they all have a high degree of emotional intelligence" (p. 94). Further, Goleman declared, "IQ and technical skills are important, but emotional intelligence is the sine qua non of leadership" (1998b, p. 93) and his model "redefines what it means to be smart" (1995, jacket cover).

Concerns have been raised in the scholarly literature about the emotional intelligence and competencies models put forward by Goleman. Three examples are briefly described here. One example is concern about the broad and shifting definition and conceptualization of emotional intelligence and competencies (e.g. Antonakis, 2009; Conte & Dean, 2006/2013; Kise, 2014; Landy, 2005; Locke, 2005; Mayer, 2001; Zeidner, Matthews, & Roberts, 2002). The quotes utilized here illustrate the intensity of the scholarly discourse. The "loose description of the concept" (Mayer, 2001, p. 8) and the "convoluted and vague definitions" (Kise, 2014, p. 15) of emotional intelligence put forward by Goleman are "moving targets" (Conte, 2005, p. 419). As expressed by

Matthews, Zeidner, and Roberts (2007), Goleman (1995) "defined EI as a laundry list of virtually every positive quality of character *except* (italics in original) for cognitive intelligence" (p. 5) When describing Goleman's linkage between emotional intelligence and effective leadership, Locke (2005) argued that conceptually it is "preposterously all-encompassing" (p. 428) and "so all-inclusive as to make the concept unintelligible" (p. 430). Further, scholars (e.g. Jordan, Ashton-James, and Ashkanasy, 2006/2013; Murphy & Sideman, 2006/2013) reported concern about the lack of psychometric empirical support for the theories and models Goleman has put forward.

Another concern emphatically expressed by some scholars has to do with the "hyperbolic claims" (Antonakis, 2009, p. 247) that Goleman has attributed to the theories and models he put forward. For example, Goleman (1998a) claimed:

> It's not that IQ and technical skills are irrelevant. They do matter, but mainly as 'threshold capabilities'; that is, they are the entry level requirements. …My research, along with other recent studies, shows that emotional intelligence is the sine qua non of leadership. (p. 94)

Scholars countered that there is insufficient empirical support for the claims, that the qualitative anecdotal evidence and the unpublished studies referenced by Goleman are not adequate to support the claims he put forward (e.g. Antonakis, 2009; Conte, 2005; Conte & Dean, 2006/2013; Landy, 2006; Locke, 2005; Matthews, Zeidner, & Roberts, 2002/2003; Mayer, Salovey, & Caruso, 2000; Salovey, Mayer, & Caruso, 2002/2009; Van Rooy & Viswesvaran, 2004; Zeidner, Matthews, and Roberts, 2004). For example, Murphy & Sideman (2006/2013) argued the "bold claims have not, to date, held up well to empirical tests" (p. 294). Further, Jordan, Ashton-James, and Ashkanasy (2006/2013)

posited the "extravagant claims have been made in the popular press (e.g. Goleman, 1995, 1998). …have done considerable harm to the field, because they lead many people to regard emotional intelligence as a fad and a confidence game" (p. 204).

A third prominent concern raised in the literature is the number of iterations of the emotional intelligence and competencies model that have been put forward (e.g. Conte, 2005; Kise, 2014; Landy, 2005; Zeidner, Matthews, and Roberts, 2009). As expressed by Landy (2005), "it would be lovely if the concepts and the measurement instruments would settle down for a bit. …Coherent theory is unlikely to emerge when conceptual foundations are in flux" (p. 419).

Measurement: Emotional Competence Inventory (ECI). To operationalize the model of emotional intelligence and competence, the Emotional Competency Inventory (ECI and ECI-2) and an Emotional and Social Competency Inventory (ESCI) were developed. Interestingly, on Goleman's website (*danielgolemaninfo.com,* 2018), the measurement he lists is the is the ESCI yet the ESCI technical manual link leads the *ECI Technical Manual* (Wollf, 2005, for the Hay Group). Like the emotional intelligence and competence models, the inventory instrument has also undergone numerous iterations over time. The measurement is designed to assess the emotional competencies of individuals and organizations (Boyatzis & Sala, 2004; Hay Group, 2018; Wolff, 2005, for the Hay Group). The inventory provides "detailed and focused feedback about individual strengths and areas for improvement" (Hay Group, 2018, p. 2). Additionally, the inventory may be used to assess an organization and work unit by aggregating the assessments of individuals within the group (Hay Group, 2018). Use of the measurement is limited to accredited users, and accreditation courses are offered by the Hay Group.

The initial inventory was created by Goleman and Boyatzis in 1998 and leveraged a self-assessment questionnaire Boyatzis had developed in 1991 (Boyatzis, Goleman, & Rhee, 2000). Boyatzis and Goleman rewrote items for the noncognitive competencies (Boyatzis et al., 2000). In 1999, the inventory instrument was revised with the Hay Group and utilized "their database of competency assessment information from hundreds of companies" (Boyatzis et al., 2000). Over the years, the inventory measurement has continued to evolve. Reasons for changes in the inventory have included:

- Access to competency assessment data from hundreds of companies associated with the Hay Group (Boyatzis et al., 2000, p. 346);
- Need for psychometric improvements – intercorrelations were too high, "this resulted in a loss of factor differentiation and threatened the concept of EI having various components" (Wolff, 2005, p. 2);
- Competence cluster analyses (Boyatzis et al., 2000);
- Relationship of clusters within the model (Boyatzis et al., 2000);
- Reduction in number of items, based on client feedback about the length of the instrument (Wolff, 2005);
- Need to increase validity (Wolff, 2005); and,
- Change from a 1-7 to 1-6 ratings scale (Wolff, 2005).

The measurement is a multi-rater measurement—that is, a self-report questionnaire and a 360-degree feedback instrument. The current version (ECI-2.2) has 72 items, covering 18 competencies, and it is recommended there be a minimum of four feedback raters (Wolff, 2005). The feedback raters may include manager ratings, direct report ratings, peer ratings, and client ratings (Urch Druskat, Sala, & Mount, 2013). The

instrument's internal consistency reliability (Cronbach's alpha) "has been found to be good for 'total other's ratings" (Wolff, 2005, p. 1). The reliability ratings reported in technical manual (Wolff, 2005, p. 1) are:

- Conflict Management – 0.47;
- Emotional Self-Awareness – 0.87;
- Inspirational Leadership – 0.76;
- Transparency – 0.68; and,
- Overall average – 0.63.

Regarding the reliability and validity of the measurement, Conte (2005) stressed that there have been few independent, peer-reviewed or published reliability and validity assessments, and without these, the strong reliability and validity reported by Boyatzis, Goleman, Hay/McBer and colleagues are "tentative at best" (p. 434).

Two concerns about the emotional competence measurement are prominently raised in the scholarly literature. First, there is concern about the frequency of changes in the models and the measurement instruments. Table 2.6 presents the 1998 and 2017 models compared to three versions of the ECI measurement. Zeidner, Matthews, and Roberts (2009) described the numerous changes as "indecisiveness" (p. 121). Scholars (e.g. Conte, 2005; Conte & Dean, 2006/2013; Landy, 2005; Zeidner, Matthews, and Roberts, 2009) expressed that the numerous iterations of the model and the measurement created empirical challenges. Meta-analyses, longitudinal research designs, and other aggregations of results are "impossible when measures continually change" (Landy,

Table 2.6 **Comparison of Two Models and Three Measurements** *(continued on next page)*

MODELS		MEASUREMENTS		
1998 Model	**2017 Model**	**ECI original**	**ECI 2.1**	**ECI 2.2**
Self-Awareness	***Self-Awareness***	***Self-Awareness***	***Self-Awareness***	***Self-Awareness***
Emotional awareness	Emotional self-awareness	Emotional self-awareness	Emotional self-awareness	Emotional self-awareness
Accurate self-assessment		Accurate self-assessment	Accurate self-assessment	Accurate self-assessment
Self-confidence		Conscientious-ness	Self-confidence	Self-confidence
Self-Regulation	***Self-Management***	***Self-Management***	***Self-Management***	***Self-Management***
Self-control	Emotional self-control	Self-control	Self-control	Emotional self-control
Trustworthiness	Adaptability	Trustworthiness	Trustworthiness	Transparency
Conscientiousness	Achievement orientation	Self-confidence	Conscientious-ness	
Adaptability	Positive outlook	Adaptability	Adaptability	Adaptability
Innovation		Change catalyst		
Motivation	***Social Awareness***			
Achievement drive	Empathy	Achievement orientation	Achievement orientation	Achievement
Commitment	Organizational awareness			
Initiative		Initiative	Initiative	Initiative
Optimism				Optimism

MODELS		MEASUREMENTS		
1998 Model	**2017 Model**	**ECI original**	**ECI 2.1**	**ECI 2.2**
Empathy		***Social Awareness***	***Social Awareness***	***Social Awareness***
Understanding others		Empathy	Empathy	Empathy
Developing others		Organizational awareness	Organizational awareness	Organizational awareness
Service orientation		Service orientation	Service orientation	Service orientation
Leveraging Diversity				
Social Skills	***Relationship management***	***Social Skills***	***Social Skills***	***Social Skills***
Influence	Influence	Leadership	Leadership	Inspirational leadership
Communication	Coach & Mentor	Communication	Communication	
Conflict management	Conflict management	Influence	Influence	Influence
Leadership		Trustworthiness	Change catalyst	Change catalyst
Change catalyst		Conflict management	Conflict management	Conflict management
Building bonds		Building bonds	Building bonds	
Collaboration & cooperation	Teamwork	Teamwork & collaboration	Teamwork & collaboration	Teamwork & collaboration
Team capabilities	Inspirational leadership		Developing others	Developing others

Note. Adapted and expanded from Zeidner, M., Matthews, G., & Roberts, R. R. (2009). *What we know about emotional intelligence.* Cambridge, MA: The MIT Press, p. 120-121.

2005, p. 419) and the operational definition "(i.e. the actual measurement instruments) are moving targets" (p. 419).

The second prominent concern is about the lack of available psychometric, discriminant, predictive, and incremental peer reviewed evidence to support the measurement. This concern has been expressed by Antonakis, Ashkanasy, and Dasborough (2009), Conte (2005), Conte and Dean (2006/2013), Jordan, Ashton-James, and Ashkanasy (2006/2013), Matthews, Zeidner, and Roberts, (2002), and Murphy and Sideman, (2006/2013), among others. As emphasized by Conte and Dean, "all of the empirical criterion-related validity studies cited are unpublished technical reports, working papers, online articles, theses, or dissertations" (2013, p. 63). Additionally, for proprietary reasons, datasets for the validity tests are "closely guarded" (Landy, 2005, p. 413) by Goleman, his colleagues, and the Hay Group. The datasets nor evidence are available to other researchers for reanalysis, replication, or verification (Conte, 2005; Conte & Dean, 2006/2013; Landy, 2005; Matthews, Zeidner, & Roberts, 2002). Further, Conte and Dean (2006/2013) asserted that the "ECI does not deserve serious consideration until peer-reviewed empirical studies using this measure are conducted" (p. 63).

In this section, the emotional intelligence and emotional competence theories postulated by Goleman (1995/2006, 1998b) were presented—including definitions and the theoretical and empirical scaffolding for the theories. Second, the model that represents the theoretical conceptualizations of both theories was discussed. Then, the measurement used to operationalize the model is put forward and described. Additionally, concerns about the theories, models, and measurement—as expressed in the

literature—were described. The next section addresses the trait emotional intelligence theory, model, and measurement.

Trait Emotional Intelligence Theory. This section begins by introducing the trait emotional intelligence approach, including the definition of trait emotional intelligence and the impetus for establishing the trait emotional intelligence approach. Next, the theoretical foundations of the trait emotional intelligence theory postulated by Petrides and Furnham (e.g. Petrides & Furnham, 2001; Petrides, 2017) and empirical studies supporting the theory are reviewed. Third, conceptualization of the trait emotional intelligence theory as a model is presented, including the formulation, components, and strengths of the model. Then, the measurement used to operationalize the model is put forward and described. Additionally, concerns expressed in the literature about the theory, model, and measurement—as well as the empirical studies countering the concerns--are identified. Finally, the reasons why the trait emotional intelligence approach was the best fit for this study are put forward.

Trait emotional intelligence emphasizes the "inherent subjectivity of emotional experience (Petrides, 2010, p. 137) and views trait emotional intelligence facets as personality traits rather than mental abilities, competencies, skills, or facilitators. This has been corroborated by research which found that genes associated with the development of individual differences in the Big Five personality traits are also associated with the development of individual differences in trait emotional intelligence (Vernon, Villani, Schermer, & Petrides, 2008). According to trait emotional intelligence theory, there is not an emotionally intelligent archetype "that leaders, mangers, and employees should strive to emulate in order to succeed" (Petrides, 2010, p. 138). Rather,

the trait emotional intelligence theory posits that "certain emotion profiles will be advantageous in some contexts but not in others" (Petrides, 2010,p. 138).

Formally, trait emotional intelligence was defined as "a constellation of emotional self-perceptions located at the lower levels of personality hierarchies and measure via the trait emotional intelligence questionnaire" (Petrides, 2010 ,p. 137; Petrides, Pita, & Kokkinaki, 2007). When describing the conceptualization of trait emotional intelligence, Petrides and Furnham (2001) proactively anticipated a criticism that would arise in the literature and acknowledged that use of the label 'emotional intelligence' was semantically inconsistent because intelligence is an ability and not a trait. Petrides and Furnham (2001) suggested a more appropriate label for trait emotional intelligence would be emotional self-efficacy. However, Petrides and Furnham chose to retain the term emotional intelligence for three reasons: a) to be "explicitly linked to the extant literature on emotional intelligence" (Petrides & Furnham, 2001, p. 427); b) they viewed scientific operationalization to be more important than labeling; and, c) to prevent more confusion (e.g. Petrides & Furnham, 2001; Petrides, Furnham, & Frederickson, 2004). Despite this, concerns about use of the term 'trait emotional intelligence' as "problematic" (Roberts, MacCann, Guil, and Mestre, 2016, p. 334) still arise in the literature.

Petrides (2010) explicitly stated the "impetus for the development of the trait emotional intelligence" (p. 136) theory, model, and measurement came from the main limitations of then leading emotional intelligence models—ability emotional intelligence (Mayer & Salovey), emotional and social intelligence (Bar-On), and emotional intelligence and competence (Goleman). Trait emotional intelligence was conceptualized

from content analyses (Petrides & Furnham, 2000b, 2001) of the previous literature on models of emotional intelligence. The purpose of the analyses was to discern the core emotional intelligence facets common across many models, excluding facets that were present in only model. Petrides and Furnham conducted the analyses (2000, 2001) within the parameters of "classical psychometric scale development" (Petrides, Furnham, & Mavroveli, 2007, p. 151). Petrides (2010) posited that trait emotional intelligence has the following advantages over the other approaches:

- Recognizes the subjective nature of emotional experience;
- Engages "mainstream theories of differential psychology" (p. 138);
- Is not tied to proprietary data or commercialized tests; and,
- Is "readily extendable into cognate areas (e.g. social intelligence) rather than restricted to a single idiosyncratic model" (p. 138);
- Has stayed consistent over the years; and,
- Enjoys widespread empirical engagement and support; and,
- Has "consistently replicated findings from numerous studies that are theoretically driven, methodologically sophisticated, and independently conducted" (p. 138).

Additionally, that the trait emotional intelligence facets are personality traits, rather than mental abilities, has been corroborated by research that showed the same genes are implicated in the development of individual differences in the Big Five personality and trait emotional intelligence (Petrides, 2017).

The theoretical foundation for the trait emotional intelligence theory has four core components. First, the theoretical roots for trait emotional intelligence are embedded in differential psychology, and primarily within the personality framework (Petrides, 2010;

Petrides& Furnham, 2001). In particular, Petrides and Furnham (2000b, 2001) emphasized that the trait emotional intelligence theory they put forward followed the Eysenckian theory (Eysenck, 1953; Eysenck & Eysenck, 1985). According to the Eysenck theory of personality, personality traits are viewed as broad behavioral elements that define who we are as individuals. Traits are genetically inherited and are hierarchical. Higher order traits are broad primary characteristics, which determine the lower order traits. The lower order traits make up our habitual behaviors and our specific responses. Petrides and Furnham stated, "following the Eysenckian view (e.g. Eysenck & Eysenck, 1985), we regard traits as *dispositions* (italics in original) and distinguish them from abilities" (Petrides & Furnham, 2001, p. 246). Additionally, the Petrides, Pita, and Kokkinaki (2007) study empirically showed trait emotional intelligence is located at the lower levels of the personality hierarchy.

Two other theoretical foundations of trait emotional intelligence are the concepts of social intelligence which was introduced by Thorndike (1920) and the concept of personal intelligence postulated by Gardner (1983). Fundamentally, the concept of social intelligence is about the importance of understanding and acting wisely in human relations, and a person's ability to interact well with others (Thorndike, 1920). Additionally, Thorndike addressed the importance of and challenges with scientifically measuring social interactions.

The concept of personal intelligence was introduced and developed by Gardner 1983/2011. Personal intelligence has two dimensions—intrapersonal and interpersonal intelligences. The core capacity of intrapersonal knowledge is "access to one's own feeling life—one's range of affects or emotions…. At its most advanced level,

intrapersonal knowledge allows one to detect and symbolize complex and highly differentiated sets of feelings" (Gardner, 1983/2011, p. 253). The other personal intelligence, interpersonal knowledge, is outward facing and is about other individuals. "The ability to notice and make distinctions among motivations and intentions" (Gardner, 1983/2011, p. 253) is the core capacity of interpersonal intelligence.

The fourth theoretical foundation of trait emotional intelligence is the theory of self-efficacy (Bandura, 1977). Bandura postulated that a person's "perceived self-efficacy influences performance" (Bandura, 1977, p. 194) and "people's beliefs about their personal efficacy constitute a major aspect of their self-knowledge" (Bandura, 1997, p. 79). According to Bandura, among the principal source of information from which self-efficacy beliefs are constructed are physiological and affective states from which people judge their capableness, strength, and vulnerability" (1997, p. 79). Petrides and Furnham often referred to trait emotional intelligence as "trait emotional self-efficacy" (e.g. Petrides & Furnham, 2001, p. 427; Petrides, Pita, & Kokkinaki, 2007, p. 273; Petrides, Mikolajczak, Mavroveli, Sanchez-Ruiz, Furnham, & Pérez-González, 2016, p. 335). According to Petrides et al. (2016), trait emotional intelligence "concerns our perceptions of our emotional abilities, that is, how good we believe we are in terms of understanding, regulating, and expressing emotions in order to adapt to our environment and maintain well-being" (p. 335).

There is an emerging body of work about the concept of a general factor of personality (GFP) and this is relevant to the trait emotional intelligence theory and model advanced by Petrides and Furnham (e.g. Petrides, 2009a, 2009b, 2010, 2017; Petrides & Furnham, 2000b, 2001, 2003). First, studies conducted and reported by Rushton, Bons,

Ando, Hur, Irwing, Vernon, Petrides, & Barbaranelli (2009) and by Veselka, Aitken, Schermer, Petrides, Vernon (2000) have shown that a GFP exists and can be extracted from combined personality-trait EI data sets (Petrides, Mikolajczak, Mavroveli, Sanchez-Ruiz, Furnham, & Pérez-Gonzàlez, 2016). Petrides et al. (2016) contend that this corroborates the view that trait emotional intelligence "ought to be integrated into multilevel personality hierarchies, somewhere between the highly specific traits at their base and the broad general factor at their apex" (p. 336).

More importantly, in 2017, van der Linden, Pekaar, Bakker, Dunkel, Schermer, Vernon, and Petrides conducted "the most extensive meta-analysis on the relationships between personality and emotional intelligence" (p. 46). The study examined the relationship between the GFP and emotional intelligence, and the relationship between the Big Five and emotional intelligence (2017). The previous meta-analysis addressing the correlation between the Big Five and emotional intelligence was conducted years ago (Van Rooy & Viswesvaran, 2004) with a limited number self-rating studies (k = 24) and did not include trait emotional intelligence (the TEIQue) among the measures used in the study (Van Rooy & Viswesvaran, 2004). Since then many more emotional intelligence studies with more sophisticated instruments have been published in the scholarly literature. The van der Linden et al. (2017) meta-analysis had a total sample of $k = 142$ data sources (N = 36,628). In the sample, there were 47 studies using the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), 24 studies using the Bar-On Emotional Quotient Inventory (EQ-i), 22 studies using the Trait Emotional Intelligence Questionnaire (TEIQue), 18 studies using the Wong and Law Emotional Intelligence Scale (WLEIS), three studies using the Situational Test of Emotion Management (STEM)

and the Situational Test of Emotion Understanding (STEU), and two studies that used custom-made ability emotional intelligence measures. In the meta-analysis, in addition to the TEIQue studies, the EQ-I and WLEIS studies were also categorized as trait emotional intelligence.

The van der Linden et al. (2017) meta-analysis had two major findings. First, the study found "a large overlap between the GFP and trait emotional intelligence ($r \approx .85$)" (p. 36). Second, the study found "a positive, but more moderate correlation with ability EI ($r \approx .28$)" (p. 36). This study showed that high GFP individuals with a high GFP score higher on emotional intelligence. Most importantly though, "the findings also suggest that the GFP is very similar, perhaps even synonymous, to trait EI [emotional intelligence]" (van der Linden et al., 2017, p. 36).

As evinced above, the trait emotional intelligence theory advanced by Petrides (e.g. Petrides, 2009a, 2009b, 2010, 2017; Petrides & Furnham, 2000b, 2001, 2003; Petrides, Pérez-González, & Furnham, 2007; Petrides, Pita, & Kokkinaki, 2007; Petrides, Furnham, & Mavroveli, 2007) is theoretically and empirically well-grounded. The theory is represented in a model. The model is presented next.

Trait Emotional Intelligence Model. The model of trait emotional intelligence is based on the psychometric empirical work of Petrides and Furnham (2000b, 2001) and represents the theory of emotional intelligence they put postulated. Petrides and Furnham conducted a content analysis of the then existing models of emotional intelligence—including the four-branch (ability) model of emotional intelligence, the model of emotional-social intelligence, and the emotional intelligence and competence model,

among others. Based on their findings and analysis, they developed the trait emotional intelligence model.

The model comprises an overarching global trait score, four main factors, and fifteen facets. The four factors are: emotionality, self-control, sociability, and well-being. Each factor is composed of several emotion-related facets. The model has two auxiliary facets—adaptability and self-motivation. These are not tied to any factor and feed directly into the global trait score. The factors and facets address self-perceptions and dispositions, that is, how individuals view themselves (Petrides, 2009b). The model of trait emotional intelligence is straight-forward and has remained consistent over the years. The trait emotional intelligence model is graphically presented in Figure 2.3.

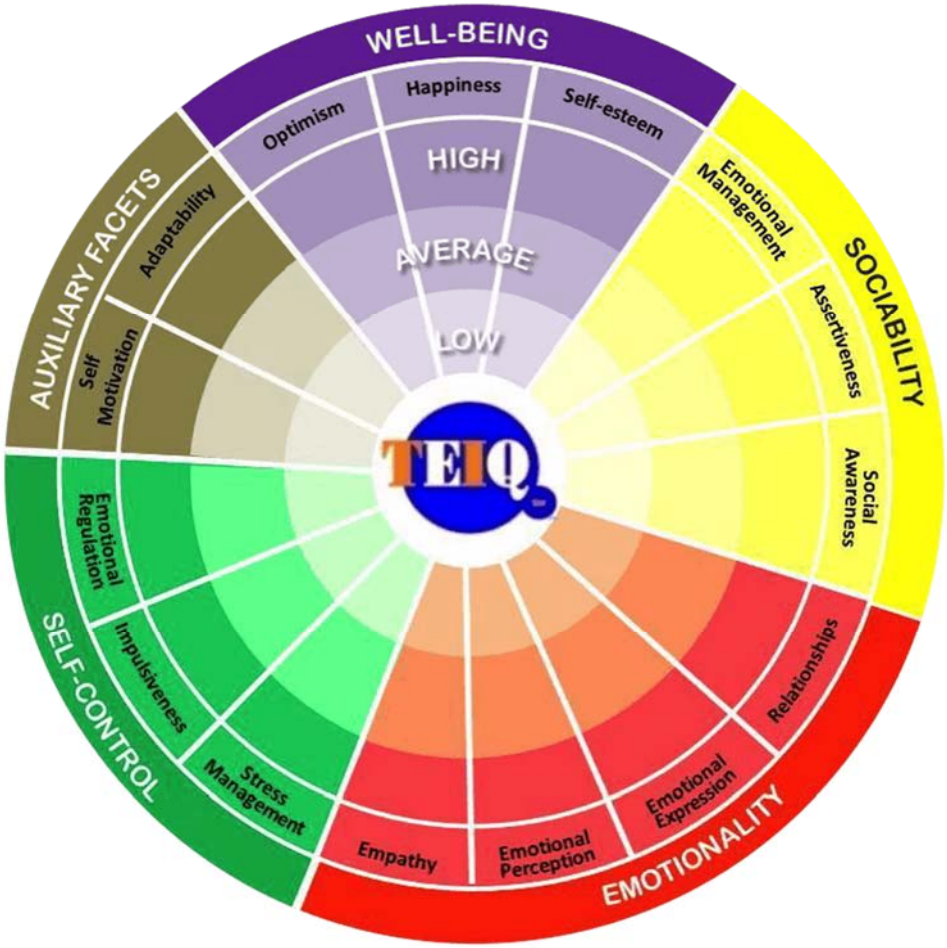
Following is a brief overview of the trait emotional intelligence factors and facets. The well-being factor (Petrides, 2009b) is composed of three facets: optimism, happiness, and self-esteem. The well-being factor is negatively associated with anxiety, depression, and somatic complaints. Generally, high scores on the well-being factor reflect a generalized sense of well-being and extends from past achievements to future expectations. Low scores generally reflect a low self-regard and general disappointment about life.

Sociability is the second factor (Petrides, 2009b) and focuses on the individual as an agent in social contexts, with an emphasis on social influences and relationships. This factor is composed of three facets: emotional management, assertiveness, and social awareness. In general, individuals with high scores are better at social interactions, are good listeners, and communicate clearly and confidently. In contrast, generally

individuals with low scores believe they are unable to affect others' emotions and are less sure what to do or say in social situations.

Emotionality is the third factor in the trait emotional intelligence model (Petrides, 2009b). Four facets make up the emotionality factor: empathy, emotional perception, emotional expressions, and relationships. Generally, high scores reflect being in touch with one's own and other people's feelings and perceiving and expressing emotions to develop and sustain close relationships. Conversely, low scores generally reflect difficulty in recognizing one's own emotions and expressing one's feelings to others.

Figure 2.3 **Trait Emotional Intelligence Model**



Note. From page 63 in Petrides, K. V. (2009b). Petrides, K. V. (2009b). *Technical manual for the Trait Emotional Intelligence Questionnaires (TEIQue)* (4th printing). London, England: London Psychometric Laboratory. Retrieved from: http://www.psychometriclab.com/Home/Links/19

The fourth factor is self-control and it consists of three facets: emotional regulation, impulsiveness, and stress management (Petrides, 2009b). In general, individuals with high scores had a healthy control over urges and desires, and are good at regulating external pressures and stress, without being repressed or overly expressive. Generally, individuals with low scores find it difficult to manage stress and are prone to impulsive behavior.

The model of trait emotional intelligence has two auxiliary factors: self-motivation and adaptability (Petrides, 2009b). In general, individuals with high scores in self-motivation tend to be determined, persevering, and driving by a need to produce high-quality work. Also, generally these individuals do not need external rewards because they are motivated from within and have a strong sense of achievement. In contract, generally individuals with low scores in self-motivation tend to need external incentives and encouragement to get things done and are more likely to give up when faced with adversity.

The adaptability factor has to do with changes in environment, contexts, and conditions (Petrides, 2009b). Generally, individuals with high scores are flexible in their approach to work and life, and may even like novelty and regular change. In contrast, generally individuals with low scores are resistant to change, have fixed ideas and views, and find it difficult to modify their work- and life-style.

Finally, the trait emotional intelligence model includes a global trait emotional intelligence assessment or score (Petrides, 2009b). Global trait emotional intelligence is a broad index. It reflects an individual's overall emotional functioning.

Central to the trait emotional intelligence model is the concept of self-efficacy, (Bandura, 1997; Petrides, 2009b). The model explicitly articulates the "inherent subjectivity of emotional experience" (Petrides, 2017) and is the only emotional intelligence model to operationally do so (Petrides, 2010; 2017). According to Bandura (1997), "people's beliefs about their personal efficacy constitute a major aspect of their self-knowledge" (p. 79) and "perceived self-efficacy influences performance" (p. 194).

This section provided an overview of the of the trait emotional intelligence model. Descriptions of the four factors and the global trait that comprise the model, as well as a diagram of the model, were presented. Next, the operationalization of the model is addressed.

Measurement: Trait Emotional Intelligence Questionnaire (TEIQue). The trait emotional intelligence model is operationalized through the Trait Emotional Intelligence Questionnaire (TEIQue). The TEIQue provides "a comprehensive assessment of the emotional world of the individual" (London Psychometric Laboratory, 2018). The TEIQue is a consistent and psychometrically validated self-report measure of emotion-related dispositions and self-perceptions (Petrides, 2009b, 2017; Petrides, Pita, & Kokkinaki, 2007; Petrides, 2017). Additional forms of the TEIQue have been developed and psychometrically validated, including the TEIQue Short Form (TEIQue-SF), TEIQue 360-degree and 360-degree short form, TEIQue Adolescent Form (TEIQue-AF) and the adolescent short form (TEIQue-ASF), and the TEIQue Childrens Form (TEIQue-CF) and short form (TEIQue-CSF) (Petrides, 2009b; London Psychometric Laboratory, 2018). It is important to note that the theory of trait emotional intelligence "does not view other-

ratings as supplementary indicators of trait emotional intelligence, but rather as measures of rated (italics in original) trait emotional intelligence" (Petrides, 2009a, p. 96).

While the other three leading emotional intelligence measurements—MSCEIT, Bar-On EQ-I, and ECI—have been commercialized, the TEIQue has not. Rather, the TEIQue, in all of its forms, is an integral part of the academic research program on trait emotional intelligence at the London Psychometric Laboratory at the University College London. The TEIQue has been translated into 26 languages, and all of the forms and translations of the TEIQue are available free of charge for research purposes, unlike the other leading emotional intelligence measurements (London Psychometric Laboratory, 2018). Due to space limitations, the rest of this section will focus on the full-form TEIQue.

The TEIQue is a self-report instrument that may be completed online or on paper. There are 153 items, and it takes about 25 minutes to complete the questionnaire. Measuring trait emotional intelligence through self-reporting is necessary due to the inherently subjective nature of emotions and emotional experience—only the individual can know what that individual perceives, thinks, or feels (Petrides & Furnham, 2001; Petrides, Pita, & Kokkinaki, 2007; Petrides, Furnham, & Mavroveli, 2007; Robinson & Clore, 2002; Watson, 2000). Further, self-perceptions "have a strong influence on cognition, behavior, and mental health, irrespective of whether they are accurate or not (Bandura, 1997; Beyer & Bowden, 1997; Taylor & Brown, 1988)" (Petrides, 2009b, p. 15).

The TEIQue and its affiliated "instruments and materials are among the most extensively validated psychological assessments available" (London Psychometric

Laboratory, 2018). Petrides (2009b) articulated that the influential account put forward by Cronbach and Meelh (1955) underpins the validation of the TEIQue and its affiliated instruments. The TEIQue "shows strong evidence of criterion, concurrent, discriminant, incremental, predictive, and ultimately, construct validity" (Petrides, 2009b, p. 26). Extensive psychometric information supporting this statement is presented in the Technical Manual for the Trait Emotional Intelligence Questionnaire (TEIQue) (Petrides, 2009b).

Petrides and colleagues proactively identified a potential criticism of the TEIQue. That was, concern had been expressed in the literature about self-report measurements of emotional intelligence having little to no incremental validity over the basic personality dimensions (e.g. Davies, Stankov, & Roberts, 1998; MacCann, Roberts, Matthews, and Zeidner, 2004; Mayer, Caruso, and Salovey, 2000). When conducting studies, Petrides and colleagues examined this matter. Petrides, Furnham, and Mavroveli (2007) and Petrides (2009b) reported that a substantive body of evidence that showed trait emotional intelligence does have "incremental validity vis-à-vis a wide range of criteria over the Big Five, the Giant Three, and other relevant variables, like alexithymia and optimism" (Petrides, 2009b, p. 15). Studies cited as evidence of the incremental validity included Extermera and Fernández-Berroca (2005), Furnham & Petrides (2003), Palmer, Donaldson, and Stough (2002), Petrides, Frederickson, and Furnham (2004), Petrides, Pérez-González, and Furnham (2007), Petrides, Pita, and Kokkinaki (2007), Saklofske, Austin, and Minski (2003), and Van der Zee and Wabeke, 2004.

Andrei, Siegling, Aloe, Baldaro, and Petrides (2016) reported that discourse in the scholarly literature is still debating how to conceptualize and operationalize emotional

intelligence (e.g. Fiori, 2009; Ybarra, Kross, & Sanchez-Burks, 2014). Also, Andre et al. (2016) called out criticisms ascribed to trait emotional intelligence arguing that it is conceptually redundant with personality traits and thus has weak utility (e.g. Antonakis, 2003, 2004; Conte, 2005; Harms & Credé, 2010; MacCann, Matthews, Zeidner, & Roberts, 2003; Schulte, Ree, & Carretta, 2004; Van Rooy, Alonso, & Viswesvaran, 2005). Joseph and Newman (2010) described mixed-based emotional intelligence models—a group in which they included Petrides and Furnham's Trait Emotional Intelligence model—as an "umbrella term for a broad array of constructs that are connected only by their non-redundancy with cognitive intelligence" (p. 55). Additionally, Schlegel, Grandjean, and Scherer (2013) argued that the concepts of trait emotional intelligence, social effectiveness, and emotional effectiveness were redundant and evidence was needed to show that trait emotional intelligence was distinctive and had incremental validity.

Two recent research studies counter this criticism. First, Andrei et al. (2016) conducted a meta-analysis to "address systematically concerns about the uniqueness and utility of trait emotional intelligence" (p. 261). In their article, Andrei et al. (2016) focused "exclusively on studies in which trait EI is measured through the Trait Emotional Intelligence Questionnaire (TEIQue)" (p. 261). For the meta-analysis, "24 articles reporting 114 incremental validity analyses of the TEIQue were reviewed" (Andrei et al., 2016, p. 261) and "data from 18 studies (providing 105 effect sizes) were pooled" (p. 261). The study found that "TEIQue scores predicted or explained incremental criterion various in 84.2% of analyses" (Andrei et al, 2016, p. 271). Also, although the overall meta-analytic effect size was small at .06, "the overall effect size confirms the

distinctiveness and theoretical importance of trait emotional intelligence (Andrei e t al., 2016, p. 272). Additionally, the "results of the meta-analysis revealed that the incremental validity of the TEIQue remains significant" (Andrei et al., 2016, p. 272).

Second, the major meta-analysis conducted by van der Linden, Pekaar, Dunkel, Schermer, Vernon, and Petrides (2017) examined the relationship between the general factor of personality (GFP) and emotional intelligence, and the relationship between the Big Five personality traits and emotional intelligence. The findings of the van der Lindenet al. (2017) meta-analysis findings showed the GFP "overlaps with trait and ability" (p. 46) emotional intelligence and suggested "the GFP is very similar, perhaps even synonymous, to trait EI [emotional intelligence]" (p. 36).

In this section, a description based on the scholarly literature about the Trait Emotional Intelligence Questionnaire (TEIQue) was put forward. Additional details about the instrument are presented in the Chapter 3 data collection section. Second, this section identified potential criticism of the TEIQue that was proactively identified by Petrides and his colleagues, and the body of evidence countering the potential criticism was discussed. Third, criticism ascribed to trait emotional intelligence in the literature and the two recent research studies countering the criticism were described. The following section addresses the selection of the trait emotional intelligence as the best approach for this study.

Selection of the Trait Emotional Intelligence Approach for the Study. From the four prominent approaches to emotional intelligence and based on the scholarly literature, there are five primary reasons why the Petrides and Furnham trait emotional intelligence approach was identified as the best fit for this study. First, the trait emotional intelligence

theory and model (Petrides &Furnham, 2000b, 2001) encompasses the core emotional intelligence facets from across the other models. Petrides and Furnham (2000b, 2001) conceptualized the trait emotional intelligence theory and model through a content analysis of the previous models of emotional intelligence, including the Four-Branch (Ability) Model (Mayer & Salovey, 1997), Emotional-Social Intelligence Model (Bar-On, 2000), and the Emotional and Intelligence Competence Model (Goleman, 1998), among others. The analysis discerned the core emotional intelligence facets common across the different models and excluded facets that were present in only one model (Petrides & Furnham, 2000b, 2001).

Second, the trait emotional intelligence approach recognizes and emphasizes that emotional experiences are inherently subjective (Petrides, 2010), and is the only emotional intelligence model to articulate and operationally do so (Petrides, 2010; 2017). Trait emotional intelligence has been described as emotional self-efficacy, building on Bandura's concept of self-efficacy. According to Bandura (1997), a person's beliefs about her/his personal efficacy constitutes a considerable part of her/his self-knowledge and "influences performance" (p. 194).

A third reason the trait emotional intelligence approach was selected for this study is that the definition, model, and measurement of trait emotional intelligence have remained relatively consistent over the years and the measurement has consistently been found to have psychometrically good reliability and validity. In contrast, the ability emotional intelligence approach put forward by Mayer, Salovey, and Caruso had numerous changes over the years. The definition of ability emotional intelligence changed (Mayer and Salovey, 1990, 1997). The Mayer and Salovey (1997) Four-Branch

Model of ability emotional intelligence was substantively revised by Mayer, Salovey, and Caruso in 2016. Additionally, the measurement operationalizing the model had two substantial revisions: the Multifactor Emotional Intelligence Scale (MEIS) developed by Mayer, Caruso, & Salovey in 1997 was replaced by the more reliable Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEI), which was replaced in 2003 by the more psychometrically sound Mayer-Salovey-Caruso Emotional Intelligence Test Version 2.0 (MSCEIT V2.0). Further, the emotional intelligence and competence approach put forward by Goleman and Boyatzis also had numerous changes over the years. There have been at least three different models: (1) the Goleman (1998b) Model of Emotional Competence had five emotional intelligence characteristics and 25 competencies; (2) the Goleman (2001) Model of Emotional Intelligence and Competencies had four emotional intelligence domains and 20 competencies; and, (3) the Goleman and Boyatzis (2017) Model of Emotional Intelligence and Competencies had four differently named emotional intelligence domains and 12 competencies. In comparison, the consistency of Petrides and Furnham's trait emotional intelligence definition, model, and measurement have been stable over the years. This stability provides a stronger conceptual and empirical base for this study, related future studies, and comparisons between these and other studies.

A fourth reason why the trait emotional intelligence approach was selected for this study is the trait emotional intelligence factors and facets are directly connected to personality rather than mental abilities (e.g. a type of intelligence). Conceptual and empirical concerns have been raised in the literature about emotional intelligence as mental abilities (e.g. Antonakis, 2009; Brody, 2004; Conte, 2005; Izard, 2001; Locke, 2005; Zeidner, Matthews, & Roberts, 2009) and there has been minimal empirical

evidence to counter the concerns. Also, Hugh and Evans (2016) posited that the ability emotional intelligence approach needs to integrate personality, citing that "personality traits (e.g. trait emotional intelligence) shape individual preferences, attentional focus, interpersonal behavior, and motives, all of which are likely to influence the choice of emotional regulation strategy (e.g. Côté, DeCelles, McCarthy, Kleef, & Hideg, 2011)" (p. 331). Additionally, research has shown the same genes are implicated in the development of personality and trait emotional intelligence (Petrides, 2017). Further, a major psychometric meta-analysis study—conducted in 2017 by van der Linden, Pekaar, Bakker, Dunkel, Schermer, Vernon, and Petrides--suggested the general factor of personality (GFP) "is very similar, perhaps even synonymous, to trait EI [emotional intelligence]" (van der Linden et al., 2017, p. 36).

Finally, the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) instrument which operationalizes the trait emotional intelligence model further solidified the trait emotional intelligence approach as the best fit for the study. In the scholarly literature, this instrument has shown consistently good psychometric reliability and validity. The TEIQue-SF is a well-known and commonly used instrument in the scholarly literature. Also, it is the best fit for the population. The instrument and the characteristics that make it a strong fit for this study are discussed in detail in the data collection section of Chapter 3.

For the five reasons presented above, the trait emotional intelligence approach was the best fit for this study. These five reasons are grounded in the scholarly literature, including both the conceptual and empirical streams. Next is a recap of the key topics addressed in this section about the emotional intelligence literature.

Summary

This section reviewed the scholarly literature about emotional intelligence, which is one of the two constructs of this study. First, emotional intelligence as a relatively new construct was discussed. Second, the theoretical foundations of emotional intelligence—which include the emotional, intelligence, and personality domains—were presented. Next, the four prominent approaches to emotional intelligence were described, including the theory, model(s), and measurement(s) of each approach, as well as the leading concerns about each approach. Finally, the selection of the trait emotional intelligence approach (Petrides & Furnham, 2001, 2001; Petrides, 2017) as the core component of the framework for this study was discussed. The following section reviews the literature about leadership, which is the second construct of the study, and its connection to emotional intelligence.

Emotional Intelligence and Leadership

This section begins by introducing the leadership construct, as well as identifying delimitations of the leadership literature review. Next the literature about the connection between emotional intelligence and leadership is presented. This includes the conceptual and theoretical literature for major leadership approaches and perspectives, and empirical evidence demonstrating the connections with emotional intelligence.

Leadership Construct

The psychological study of leadership has been occurring for more than 100 years and the resulting literature is massive (Kaiser, Hogan, Craig, 2008; Kilburg & Donohue, 2011, Northouse, 1997/2012; Yukl, 198/2013). As numerous scholars have pointed out and reviews of the research on leadership have demonstrated (e.g. Bennis, 2007; Goethals & Sorenson, 2006; Hogan & Kaiser, 2005; Kilburg & Donohue, 2011; Northouse,

1997/2012; Vroom & Jago, 2007; Yammarino, 2000; and Yukl, 1998/2013), leadership does matter, both rational and emotional processes are viewed as essential aspects of leadership, and there is extensive complexity across the vast spectrum of theories and models of leadership. Thus, this literature review is delimited to: a) seminal perspectives and salient points of consensus about leadership relative to its connection with emotional intelligence, b) addressing the major leadership approaches for which empirical evidence has demonstrated a connection with emotional intelligence, and c) reviewing the literature about emotional intelligence and its relationship to leadership effectiveness.

As succinctly reported by Vroom and Jago (2007) "virtually all definitions of leadership share the view that leadership involves the process of influence" (p. 17). Yukl eloquently put it this way, "influence is the *essence* of leadership (italics in original)" (2013, p. 406). Second, all leaders have at least one follower (Northouse, 1997/2012; Yukl, 1998/2013), for "if no one is following, one cannot be leading" (Vroom and Jago, 2007p. 17). Further, Goleman emphasized that "leadership is not domination, but the art of persuading people to work toward a common goal" (1995, p. 149).

Seminal and salient core functions of leadership put forward in the scholarly literature include the following. Katz and Kahn (1978) considered the "essence of organizational leadership to be the influential increment over and above mechanical compliance with the routine directives of the organization" (p. 528). Barnard (1938/1968) expressed the distinguishing function of executive leadership to be "securing, creating, inspiring of 'morale' in an organization. This is the process of inculcating points of view, fundamental attitudes, loyalties to the organization or cooperative system" (Barnard, 1938/1968, p. 279). Many scholars (e.g. Bennis & Nanus,

1985, Kotter, 1990, Northouse, 1997/2012, and Yukl, 1998/2013) identified a core function of leadership to be influencing and producing adaptive and constructive change. Also, leadership has been inextricably linked to organizational culture (Schein, 1985/2010, Yukl, 1998/2012) and this affects how leaders influence others (Northouse, 2012, p. 337). A broader array of matters that leadership can influence, as collated by Yukl, includes:

- Choice of objectives and strategies to pursue;
- Motivation of members to achieve the objectives;
- Mutual trust and cooperation of members;
- Organization and coordination of work activities;
- Allocation of resources to activities and objectives;
- Development of member skills and confidence;
- Learning and sharing of new knowledge by members;
- Enlistments of support and cooperation from outsiders;
- Design of formal structures, programs, and systems; and,
- Shared believes and values of members (2013, p. 8)

Kaiser, Hogan, and Craig (2008), noted that although the majority of the leadership literature assumes that leaders affect the performance and effectiveness of organizations, there are some prominent alternative views in the scholarly literature. For example, Lieberson & O'Connor (1972) and Pfeffer (1977) argued that leadership has a minimal impact on organization performance in comparison to historical, organizational, and environmental forces. Others posited that leadership is romanticized and that attributing organizational outcomes to leadership is an oversimplification (e.g. Meindl &

Erhlich, 1987; Meindl, Ehrlich, & Dukerich, 1985). More recently, complexity theorists such as Marion and Uhl-Bien (2001) postulated that leadership is an emergent phenomenon involving complex, nonlinear interactions among variables in a dynamic system open to outside influences; and emphasized that leadership behaviors "*enable* organizational effectiveness, as opposed to *determining or guiding* effectiveness (italics in original)" (p. 389).

To better understand the connection between leadership and organizational performance and effectiveness, Kaiser, Kogan, and Craig (2008) reviewed ten meta-analytic studies that addressed leadership measurements over a twenty-year period. The Kaiser, Kogan, and Craig meta-analysis "included evaluations of over 280,000 leaders from 1,124 samples and 1,695 statistical tests" (2008, p. 97). Overall, the Kaiser, Kogan, and Craig (2008) meta-analysis data showed that leadership has a "substantial influence" (p. 104) on the organizational effectiveness, "for better or worse" (p. 96).

Two stand out findings reported by Kaiser, Kogan, and Craig (2008) showed there has been much interest in studying the interpersonal and social effects of leadership. First, raters' feelings and perceptions about the performance of people in leadership roles was the most common criterion measure for leadership performance. Second, researchers have examined leadership influence on group processes more often than the its impact on business outcomes. The demonstrated interest in the scholarly literature—as evinced by the Kaiser, Kogan, and Craig meta-analysis—about interpersonal, feelings, and influence aspects of leadership was echoed in another major state-of-the science literature review. Gooty, Connelly, Griffith, and Gupta (2010) conducted a qualitative review of affect, emotions, and emotional competencies in leadership theory and research published in ten

psychology journals, in book chapters, and in special issues of journals over the twenty-year period from 1990 to 2010. Gooty et al. (2010) found that "affect and emotion are deeply intertwined with the process of leading" (p. 979).

Leadership and Emotional Intelligence

"It is no secret in the leadership community that affect, emotional intelligence, moods, emotional contagion, and emotional labor are everywhere" (2015, p. 485) expressed Connelly and Gooty in their introduction to the special issue on leadership and emotions in *The Leadership Quarterly*. Sosik and Megerian (1999) and Prati, Douglas, Ferris, Ammeter, & Buckley (2003a) posited that emotionally intelligent leaders provide the impetus for individuals to collectively perform. Further, Mayer and Caruso (2002) stated that "people high in EI will build real social fabric within an organization, and between an organization and those it serves, whereas those low in EI may tend to create problems for the organization through their individual behaviors" (p. 4).

Goleman, Boyatzis, and McKee (2002) contended that the higher up an individual goes in an organization, the more important emotional intelligence becomes. Empirical evidence from three studies support this proposition. First, Dulewicz and Higgs (2003) re-examined findings from a previous study involving more than 1,000 board directors in the United Kingdom (Dulewicz, MacMillan, & Herbert, 1995) and re-analyzed the data on competencies related to emotional intelligence. The results showed that emotional intelligence competencies "are considered to be extremely important" (Dulewicz & Higgs, 2003, p. 193) according to that large sample of board directors. Dulewicz and Higgs (2003) posited that these findings support "Goleman's hypothesis that the higher one advances, the more important EI becomes" (p. 193). A second study reported by

Dulewicz, Young, and Dulewicz (2005) was a study with a sample of 261 Royal Navy officers and seamen within the Maritime Warfare School. The study examined intellectual (IQ), emotional (EQ) and managerial (MQ) competencies across the seven ranks of the sample. Results of a regression analysis and hierarchical regression analysis showed "EQ made a greater contribution to overall performance than IQ and MQ" (Dulewicz, Young, & Dulewicz, 2005, p. 81) and the authors posited that also supported the proposition that the higher up one goes in an organization, the more important emotional intelligence becomes. The third study was reported by in 2013, Goleman, Boyatzis, and McKee. They had analyzed data from nearly "500 competence models from global companies (including the likes of IBM, Lucent, PepsiCo, British Airways, and Credit Suisse First Boston) as well as from healthcare organizations, academic institutions, government agencies, and even a religious order)" (p. 249). The reported findings from their (unpublished) analysis "yielded dramatic results…revealed that EI-based competencies played an increasingly important role at higher levels of organizations, where differences in technical skills are of negligible importance" (Goleman, Boyatzis, & McKee, 2103, p. 250).

Numerous other studies have evinced connections between emotional intelligence and leadership. Following is an overview of five studies utilizing different methodologies, measurements, populations, sample sizes, and time periods that demonstrate connections between emotional intelligence and leadership. The first study was reported in 2000 by Barling, Slater, and Kelloway who conducted a study with 49 vice presidents, general managers, middle managers, and supervisors of a large pulp and paper organization, as well as at least three subordinates to complete 360-degree ratings

for each leader. The participants completed Bar-On's EQ-I (1997) measurement and the Multifactor Leadership Questionnaire (MLQ5X-Short). The completed questionnaires were submitted to Multi Health Systems, the commercial owner of the measurements, for scoring. Barling, Slater, and Kelloway (2000) reported that the results of their study showed "emotional intelligence is associated with three aspects of transformational leadership (namely idealized influence, inspirational motivation, and individualized consideration)" (p. 159). The study also found that laissez-faire leadership, as well as active and passive management by exception, did not have an association to emotional intelligence.

A second study reported by Bharwaney, Bar-On, and MacKinlay (2011) covered an unpublished "landmark study" (p. 8) conducted by Ruderman and Bar-On in 2003 at the Center for Creative Leadership in the United States. The study obtained data from 236 executives across North America. Each participant completed the EQ-I, and each individual's leadership ability was rated by seven to eight co-workers suing the Benchmarks 360-Degree multi-rater instrument developed by the Center for Creative Leadership to "rate successful leadership and the potential for very poor leadership" (Bharwaney et al., 2011, p. 9). The study "found that the overall correlation was .74 meaning that at least 55% of successful leadership is based on emotional intelligence" (Bharwaney et al., 2011, p. 9). The authors also noted that the emotional intelligence factors that showed the "strongest impact of leadership are empathy, interpersonal relationship, social responsibility, stress tolerance, and problem solving" (Bharwaney et al., 2011, p. 9).

A third study, conducted by Stein, Peter, Papadogiannis, Yip, and Sitarenios (2009), also utilized the EQ-I and involved 186 executives who were 27 to 59 years old and held the title of CEO, owner, president, or managing director of her/his company. The study found the executives scored significantly higher than normative population in eight of the fifteen EQ-i subscales. Additionally, "executives who possessed higher levels of empathy, self-regard, reality testing, and problem solving were more likely to yield high profit-earning companies" (Stein et al., 2009, p. 87). Interestingly, the study also found the executives had significantly lower scores than the general population in social responsibility and impulse control.

Rosete and Ciarrochi (2005) reported on their study which utilized the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) as well as the Wechsler abbreviated scale of intelligence (WASI). The study involved 41 senior executives from a large Australian public service organization, as well as their subordinates and director managers. All the executives completed the MSCEIT self-report ability instrument and the WASI, while their subordinates and direct managers completed 360-degree assessments. Rosete and Ciarrochi reported that "correlational and regression analyses revealed that higher EI was associated with higher leadership effectiveness, and that EI explained variance not explained by personality or IQ" (2005, p. 388).

The fifth study in this empirical evidence overview was a qualitative study using a critical incident analysis design was conducted with six field-based leaders in the educational domain (Johnson, Aiken, and Steggerda, 2005). Johnson, Aiken, & Steggerda reported that the study suggested "emotional and social qualities are linked to leadership competencies such as self-confidence, empathy, self-management, negotiating

conflicts, persistence, and the ability to engage in trusting, collaborative relationships that are necessary for leadership success" (2005, p. 250). Further, Johnson, Aiken, and Steggerda noted "what surfaced, too, is the recognition that emotions have the potential to serve as a resource…[and] are part of our added potential to learn as leaders" (2005, p. 248).

The final two studies in this review of empirical evidence demonstrating the connection between emotional intelligence and leadership utilized engaged the trait emotional intelligence model (Petrides & Furnham, 2000b, 2001) and the Trait Emotional Intelligence Questionnaire (TEIQue) full and short forms. The Siegling, Nielsen, and Petrides (2014) study was conducted at a multinational company in Denmark. A total of 300 employees were invited to participate, and 96 participants volunteered, a response rate of 32%. The age range of participants was 24-62 years and the tenure in their present position was an average of 7.88 years. Cognitive ability scores and leadership status data were obtained from participants' records from the human resources department. A leadership position in the company entails "directly supervising three or more employees whom the leader manages and appraises. Leaders have the right to hire and dismiss employees and are expected to drive company values and deliver top quartiles results" (Siegling, Nielsen, & Petrides, 2014, p. 66). The study participants completed either the full TEIQue or the TEIQue-SF—due to time constrains, the full form was replaced by the short form two weeks into the study. Both instruments yield global and factor scores. The study found that "leaders had significantly higher trait emotional intelligence scores than non-leaders" (Siegling, Nielsen, & Petrides, 2014, p. 66). Interestingly, "in contrast, the leaders and non-leaders did not differ on age or cognitive ability" (Siegling, Nielsen,

& Petrides, 2014 p., 66). The authors also noted the results "support the notion that leadership and management positions require high trait emotional intelligence" (Siegling, Nielson, & Petrides, 2014, p. 67). The second trait emotional intelligence study was reported by Siegling, Sfeir, and Smyth (2014). The study engaged a sample of 128 managers at a professional services firm in the United Kingdom. The participants completed the TEIQue-SF, and the overall sample had significantly higher scores than the normative sample on global trait emotional intelligence, self-control, and well-being" (Siegling, Sfeir, & Smyth, 2014, p. 61). Interestingly, the authors expressed that:

> Conceptually, trait emotional intelligence is particularly relevant to the occupational demands shared by managers from all kinds of backgrounds (e.g., demonstrating composure in high stress periods, dealing effectively with employee turmoil, being responsive to employees' needs)" (Siegling, Sfeir, & Smyth, 2014, p. 63).

While leadership and management are not interchangeable concepts (Kotter, 1990; Lunenburg, 2011), there is some conceptual overlap (Kotter, 1990; Young & Dulewicz, 2008).

Given the fundamental connection between leadership and followers, emotional intelligence is core to the connection with followers (Little, Gooty, & Williams, 2016; Walter, Cole, & Humphrey, 2011). For example, scholars (e.g. Ashkanasy & Humphrey, 2011; Gooty, Connelly, Griffith, & Gupta, 2010; Humphrey, Pollack, & Hawver, 2008; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003) have addressed the role of emotional intelligence in providing inspiration and a sense of meaning, identity, and commitment to followers; building and sustaining interpersonal relationships; and, investing in follower

outcomes such as citizenship behaviors, performance, and satisfaction. Caruso, Mayer, and Salovey (2002) expressed that a leader who can accurately identify and understand another person's emotions should be able to better grasp followers' needs and problems, and hence, formulate successful emotional responses (Caruso, Mayer, & Salovey, 2002). Leaders with high emotional intelligence can generate and maintain follower confidence, cooperation, and trust (George, 2000), and guide follower groups and teams through situations of ambiguity, conflict, and confusion (Humphrey, 2006; Pescosolido, 2002).

Leadership Approaches and Emotional Intelligence

This section provides a review of the major leadership approaches and perspectives for which empirical evidence has shown there to be a strong connection with emotional intelligence. Specifically, this section describes the theoretical foundations for authentic leadership, charismatic leadership, and transformational and transactional leadership. Also, empirical evidence demonstrating the strong connections to emotional intelligence is presented.

Authentic leadership. Central to authentic leadership is the authenticity and genuineness of leaders and their leadership (George, 2003; Luthans & Avolio, 2003; Eagly, 2005; Northouse, 2010; Yukl, 1998/2013). The literature describes a common set of characteristics among authentic leaders. Authentic leaders genuinely know themselves, have strong beliefs about the right thing to do, desire to serve others, value trusting relationships with others, and demonstrate self-discipline (Avolio & Gardner, 2005; Eagly, 2005; George, 2003; Northouse, 2010; Shamir & Eilam, 2005; Yukl, 1998/2013). Although there is not a standard accepted definition of authentic leadership in the literature (Northouse, 2010; Yukl, 1998/2013), three perspectives contribute to the

meaning of authentic leadership—the intrapersonal, developmental, and interpersonal perspectives (Northouse, 2010).

From what Northouse (2010) termed the intrapersonal perspective, the definition of authentic leadership asserted by Shamir and Eilam (2005) emphasizes the leader's self-concept and how that self-concept connects to actions. "Performing a leadership function and related activities are self-expressive acts for authentic leaders. It is part of what they feel to be their 'true' or 'real' self" (Shamir & Eilam, 2005, p. 396). Authentic leaders base their actions on their values and convictions (Shamir & Eilam, 2005). From the interpersonal perspective, authentic leaders have the following core characteristics: (a) the role of leader is central to their self-concept, (b) their beliefs are clear and consistent, (c) they are motivated by internal commitment, and (d) their behavior is self-expressive and based on their values and convictions (Shamir & Eilam, 2005; Northouse, 2010; Yukl, 1998/2013).

The second perspective about the definition of authentic leadership is the developmental viewpoint (Northouse, 2010), which was put forward and exemplified by the work Luthans and Avolio (2003); Avolio and Gardner (2005); Gardner, Avolio, Luthans, May, and Walumbwa (2005); and, Walumbwa, Avolio, Gardner, Wernsing, & Peterson (2008). From the developmental perspective, authentic leadership is grounded in and develops through the leader's personal life histories, positive psychological qualities such as self-esteem and optimism, may be nurtured, and can be triggered by major life events (Avolio & Gardner, 2005; Gardner et al., 2005; Northouse; 2010; Walumbwa et al., 2008). Additional key facets comprising the developmental perspective on the definition of authentic leadership include: leader self-awareness,

internalized moral perspective, relational transparency, and balanced processing (Gardner et al., 2005; Northouse, 2010; Walumbwa et al., 2008).

The third viewpoint about the meaning of authentic leadership is the interpersonal perspective (Northouse, 2010). This perspective proffers that authentic leadership is relational and created from the interactions between leaders and followers (Eagly, 2005; Northouse, 2010). Further, it is asserted authentic leadership "requires that followers accord leaders the legitimacy to promote a set of values on behalf of a community" (Eagly, 2005, p. 459).

Emotional intelligence and authentic leadership. Conceptually, emotional intelligence and authentic leadership share some similar attributes. First, authentic leaders have a "high degree of self-acceptance, which is similar to emotional maturity" (Yukl, 1998/2013, p. 351). Second, authentic leaders genuinely know themselves, demonstrate self-regulation, and are able to establish a connection with others (Avolio & Gardner, 2005; Eagly, 2005; George, 2003; Northouse, 2010; Shamir & Eilam, 2005; Yukl, 1998/2013). These attributes are conceptually similar to the emotional intelligence attributes of being emotionally self-aware and managing one's own as well as others' emotions (Bar-On, 1997; Goleman, 1995/2006; Petrides, 2009; Salovey & Mayer, 1990). Third, authentic leaders have positive psychological qualities such as self-esteem and optimism (Avolio & Gardner, 2005; Gardner et al., 2005; Northouse; 2010; Walumbwa et al., 2008). Similarly, emotional intelligence involves having a sense of well-being, self-esteem, and optimism (Bar-On, 1997; Goleman, 1995/2006; Petrides, 2009). Further, authentic leadership involves authentic and transparent interactions with followers (Eagly, 2005; Gardner et al., 2005; Northouse, 2010; Walumbwa et al., 2008).

Emotional intelligence involves the similar concepts of empathy, relationship management, social awareness (Bar-On, 1997; Goleman, 1995/2006; Petrides, 2009; Salovey & Mayer, 1990).

Empirically, the literature suggests there is a statistically significant relationship between emotional intelligence and authentic leadership (Jasso, 2016; Kiyani, Saher, Saleem, & Iqbal, 2013; Rodriguez, 2016). Three separate studies examined the relationship between emotional intelligence and authentic leadership using the same self-report measurement instruments—the Schutte Self-Report Emotional Intelligence Test (SSEIT) and the Authentic Leadership Questionnaire (ALQ). Following is a synopsis of the three studies.

Jasso (2016) explored the relationships between authentic leadership, emotional intelligence, and student success. The sample comprised first-time-in-college students (N=493) at a private school in San Antonio, Texas (Jasso, 2016). The study "showed all four emotional intelligence components had a significant effect on the total authentic leadership…(and) all four authentic leadership components correlated with three out for the four emotional intelligence components" (Jasso, 2016, p. ii).

The study by Kiyani, Saher, Saleem, and Iqbal (2013) also suggested a relationship between emotional intelligence and authentic leadership. The sample for the study comprised manager and non-managers (N=283) in software and telecom companies in Pakistan (Kiyani et al., 2013). The study found emotional intelligence was "significantly positively correlated with authentic leadership" (Kiyani et al., 2013, p. 400).

A third study, Rodriguez (2016), engaged a demographically diverse convenience sample of leaders (N=254) in southern Texas. The study findings suggested certain scales of emotional intelligence on the SSCEIT—perception of emotions, use of emotions, managing self emotions, and managing others' emotions—were predictors of authentic leadership (Rodriguez, 2016). Additionally, "overall authentic leadership was found to significantly predict all measures of emotional intelligence" (Rodriguez, 2016, p. iv).

However, Berardi (2015) found there was not a statistically significant relationship between emotional intelligence and authentic leadership. The Berardi (2015) study utilized a different self-administered measurement for emotional intelligence—the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). The study sample (N=168) comprised retired, separate, and active duty U.S. Navy SEALs (Berardi, 2015).

In sum, the literature suggests emotional intelligence and authentic leadership have conceptually similar attributes. Further, empirical studies found the relationship between emotional intelligence and authentic leadership to be statistically significant. The next section will review the literature around charismatic leadership and emotional intelligence.

Charismatic leadership. Weber (1922/1947) posited the seminal concept of the charismatic leader. That is, charisma is an extraordinary even superhuman quality, giving exceptional powers to a special individual and resulting in the person being treated as a divine or exemplary leader (Weber, 1922/1947; Northouse, 2010). Although there is not a consistently accepted definition of charismatic leadership in the literature (Northouse, 2010; Yukl, 1998/2013), "evidence of charismatic leadership is provided by

the leader-follower relationship, and a charismatic leader has profound and unusual effects on followers" (Yukl, 1998/2013, p. 312).

There are several "well-developed theoretical frameworks" (Jung & Sosik, 2006, p. 12) for charismatic leadership. While the charismatic leader's effect on followers is central to these frameworks, the theoretical frameworks engage different viewpoints. There are three primary perspectives—the behavior and trait perspective, the behavior and attribution perspective, and the self-concept and motivation perspective (Conger & Kanungo, 1998).

The behavior and trait perspective emphasizes that charismatic leadership behaviors and traits affect followers and social systems (Northouse, 2010; Shamir, House, & Arthur, 1993; Yukl, 1998/2013). House (1977) articulated a leading theoretical framework, which engaged a behavior and trait lens to describe characteristics of charismatic leaders, unique ways charismatic leaders act, and the subsequent effects on their followers (Northouse, 2010). Fundamental to the House (1977) framework was the idea that charismatic leadership involves an observable process. In the House (1977) framework, the four personality characteristics of charismatic leaders are dominance, self-confidence, strong moral values, and a desire to influence others (Jung & Sosik, 2006; Northouse, 2010). Additionally, specific behaviors of charismatic leaders were put forward by House (1977): (a) acting as strong role models for the beliefs and values they want their followers to adopt, (b) appearing competent to followers, (c) articulating ideological goals with moral overtones, (d) communicating high expectations for followers, (d) exhibiting confidence in followers' abilities to meet the high expectations, and (e) arousing task-relevant motives in followers to strengthen followers' sense of

affiliation or esteem (Jung & Sosik, 2006; Northouse, 2010). Further, the House (1977) theory postulated a set of effects on followers that directly resulted from charismatic leader behaviors. The effects on followers included: trust in the leader's ideology, belief similarity between the leader and followers, unquestioning acceptance, affection toward the leader, obedience, identification with the leader, emotional involvement, heightened goals, and increased sense of competence and confidence (Jung & Sosik, 2006; Northouse, 2010).

Conger and Kanungo (1987) called for a "deeper understanding" (p. 639) of charismatic leadership within organizations. For this, Conger and Kanungo engaged a behavior and attribution lens, viewing charismatic leadership "as both a set of dispositional attributions by followers and as a set of leaders' manifest behaviors…linked in the sense that the leaders' behaviors form the basis of the followers' attributions" (1987, p. 645). Conger & Kanungo (1987, 1988, 1998) proffered a slate of behavioral components of charismatic leaders.

Charismatic leaders act as reformers or agents of radical change, opposing the status quo with an idealized vision that is highly divergent from the status quo and makes them honorable heroes (Conger & Kanungo, 1987, 1988). They are effective at communicating their motivation to followers and articulating their vision as attractive and attainable (Conger & Kanungo, 1987, 1988). High personal risks are often taken by charismatic leaders as they transcend the normal order through extraordinary and unconventional means, and portray the status quo as negative or intolerable (Conger & Kanungo, 1987, 1988). Charismatic leaders are strategic and entrepreneurial—they realistically assess the environment, resources, and constraints, and implement creative

and innovative strategies (Conger & Kanungo, 1987, 1988). Additionally, Conger & Kanungo articulated that charismatic leaders exert personal power over their followers through behaviors that are elitist yet and imply concern for followers' needs (1987, 1988). In 1998, Conger and Kanungo refined their theory and posited that charismatic leaders are more effective than non-charismatic leaders.

The theoretical framework of charismatic leadership was further advanced by Shamir, House, and Arthur (1993) who proffered a "self-concept based motivational theory to explain the process by which charismatic leader behaviors cause profound transformational effects on followers" (p. 577) and that connects followers' identities to the collective identity of the organization (Shamir et al., 1993; Northouse, 2010). Key underpinnings of this perspective include the understanding that humans are self-expressive; motivated to maintain and improve their self-esteem and self-worth; self-concepts encompass the person's values and sense of identity; and, faith is a human motivator (Shamir et al., 1993).

The theory put forward by Shamir et al. (1993) postulates that charismatic leaders motivate their followers by emphasizing the symbolic and moral aspects of making an effort; enhancing followers' self-esteem and self-worth; articulating a vision and mission that "presents goals in terms of the values they represent" (p. 583); inspiring faith in a better future; establishing "personal commitment on the part of the leader and the followers to a common vision, mission, or transcendent goal" (p. 583). The charismatic leader implements these motivational processes through two primary leader behaviors: role modeling and frame alignment (Shamir et al., 1993). Additionally, a charismatic

leader's communication with followers affects the followers' alignment with the vision, mission, and goals, and mobilizes the followers to action (Shamir et al., 1993).

Agle (1993) conducted a study examining charismatic leadership and leadership effectiveness. The study population was chief executive officers (N=250), and the methodology involved in-depth case studies and as well as questionnaires completed by members of the leaders' senior management team (n=1,540). The study found that "charismatic chief executive officers are more effective" than their less charismatic counterparts (Agle, 1993 p. 169; Agle & Sonnenfield, 1994).

To examine and identify the personal attributes among charismatic leaders, Jung and Sosik (2006) conducted a multi-source field data study involving technology-driven organizations. The study population was corporate managers (N=218), who were rated by 945 of their subordinates and 218 of their superiors. The Jung & Sosik (2006) study findings "generally supported the common notion" (p. 22) that charismatic leaders are highly motivated to attain social power, actively engagement in impression management, have a high need for self-actualization, and are strong self-monitors.

An extensive number of other empirical investigations of the charismatic leadership phenomenon have been conducted utilizing an array of research methods. Among the studies were field surveys (e.g. Smith, 1982; Yukl & Van Fleet, 1982); case studies (e.g. 1993; Roberts & Bradley, 1988); longitudinal observational studies (e.g. Trice & Beyer, 1986); content and interpretive analyses of interviews (e.g. Bennis & Nanus, 1985; Howell & Higgins, 1990); semiotic analysis of speeches (e.g. Fiol, Harris, & House, 1999); quantitative research using historical materials such as speeches, diaries, and letters (House, Spangler, & Woycke, 1991; Schilling, 2010); and, laboratory

experiments (e.g. Howell & Frost, 1989; Puffer, 1990), among others. Additionally, the studies spanned a broad spectrum of populations, including top level corporate leaders (Bennis & Nanus, 1985); U.S. presidents (Fiol et al., 1999; House et al., 1991); presidents of alcoholic rehabilitation organizations (Trice & Beyer, 1986); leaders in the Canadian business, industry, and government sectors (Smith, 1982); military combat and noncombat leaders (Yukl & Van Fleet, 1982); emergent informal champions of innovations (Howell & Higgins, 1990); and, students who served as laboratory subjects (Howell & Frost, 1989; Puffer, 1990), among others. Space limitations prevent a detailed review of the findings of these studies.

According to House et al. (1991), the extensive body of empirical studies provide support for charismatic leadership theory in a wide range of populations using a wide variety of research methods (p. 365). Conger and Kanungo (1998) reported that "what is more remarkable than [the] flowering research is the relative uniformity of findings despite some differences in theoretical approaches" (p. 4). Collectively the array of empirical findings "indicate that leaders who engage in theoretical charismatic behaviors produce the theoretical charismatic effects" (Shamir et al., 1993, p. 578). Also, the empirical evidence indicates charismatic leaders "receive higher performance ratings, have more satisfied and more highly motivated followers, and are viewed as more effective leaders by their superiors and followers than other in positions of leadership" (Shamir et al., 1993, p. 578). Additionally, according to House et al. (1991), the social or organizational conditions in which charismatic leadership will be most effective are "situations that require a combination of high involved and active leadership and emotional commitment" (p. 391).

Emotional intelligence and charismatic leadership. Charismatic leadership has been suggested to be inherently emotional (Schilling, 2010; Walter & Bruch, 2007; Wasilewski, 1985). Charismatic leadership theories recognize the emotional needs and responses of followers (Conger & Kanungo, 1998; House, 1977) and the emotional aspects of leadership that are influenced (Shamir et al., 1993). Indeed, Middleton (2006) found emotional intelligence to be "significantly related to charismatic leadership emergence in developing leaders" (p. 295), and the empirical findings of Walter and Bruch (2007) "strong suggest that leaders' emotional intelligence constitutes a crucial prerequisite for the performance of charismatic leadership behaviors" (p. 73).

Charismatic leaders emotionally connect with their followers and leverage their followers' feelings to pursue a vision, mission, and/or goals (Ashforth & Humphrey, 1995; Avolio & Bass, 1988; Howell & Frost, 1989; Pirola-Merlo, Härtel, Mann, & Hirst, 2002; Shamir et al., 1993; Walter & Bruch, 2007). Further, Wasilewski (1985) and Walter and Bruch (2007) posited that a leader's charisma "crucially depends on their ability to evoke emotions in followers and to revoke and reframe these emotions so as to support the leader's cause (Walter & Bruch, 2007, p. 61). Interestingly, Mayer et al. (2004) found that individuals with higher emotional intelligence create higher quality vision statements than those with lower emotional intelligence. Also, Bono & Ilies (2006) showed that charismatic leaders express emotions which transfer to followers, and it has been posited leaders who have high emotional intelligence are well-positioned to recognize the extent to which they can raise the expectations of followers (Barling, Slater, & Kelloway, 2000; Walter & Bruch, 2007). Thus, emotionally intelligent leaders

can "rally their followers behind an intriguing and challenging vision, which constitutes a cornerstone of charismatic leadership" (Walter & Bruch, 2007, p. 61).

To summarize, the theoretical and empirical literature suggests emotional intelligence is inherent in charismatic leadership. Further, "both theoretical considerations and recent empirical findings suggest that leaders high on emotional intelligence are more likely to perform charismatic leadership behaviors than leaders low on emotional intelligence" (Walter & Bruch, 2007, p. 62). The next section will review the literature around transformational leadership and emotional intelligence.

Full Range of Leadership Model. Burns (1978) posited the seminal concepts of transforming and transactional leadership in his book on political leadership. Burns (1978) asserted that transforming leadership is a process through which "leaders and followers raise one another to higher levels of morality and motivation" (p. 20). In this view, transforming leadership is more than an influence process between people. As described by Yukl (1998/2013), transforming leaders inspire followers, "shape, express, and mediate conflict…mobilizing and channeling energy to achieve shared ideological objectives" (p. 348). In contrast, transactional leadership influences and motivates followers by focusing on their self-interests and the transactional exchange of benefits (Burns, 1978; Yukl, 1998/2013).

Bass (1985, 1990), extended this perspective and put forward an expanded conceptualization, asserting that transformational leaders "have better relationships…and make more of a contribution to the organization" (1990, p. 22) than leaders who only engage transactional leadership behaviors. According to Bass (1985, 1990), transformational leadership inspires followers to do more than expected in three ways,

succinctly presented by Northouse as: “a) raising followers’ levels of consciousness about the importance and value of specified and idealized goals, b) getting followers to transcend their own self-interest for the sake of the team or organization, and c) moving followers to address higher-level needs” (Northouse, 2010, p. 176). Further, a transformational leader articulates a vision of the future that can be shared with peers and followers, intellectually stimulates subordinates, and pays high attention to individual differences among people (Yammarino & Bass, 1990a). This is in contrast to transactional leadership which involves a transactional exchange that results in follower compliance “but is not likely to not generate enthusiasm and commitment to task objectives” (Yukl, 1998/2013, p. 322). Bass (1985) viewed this leadership paradigm as having complementary rather than polarized factors.

A model consisting of a slate of eight factors (or behaviors) was put forward by Bass (1985, 1990) to describe the different approaches and characteristics of transformational and transactional leadership. These are presented in Table 2.7. The transformational leadership factors are often referred to as the “Transformational 4 I’s” (Northouse, 2010, p. 178).

The first transformational leadership behavior factor is idealized influence. Leaders who utilize this approach are highly respected and act as strong role models for followers, providing followers with a sense of mission and vision (Bass, 1985, 1990; Northouse, 2010). The second factor is inspirational motivation. Leaders who engage this approach communicate high expectations to followers and enhance team spirit (Bass, 1985, 1990; Northouse, 2010). The third factor of transformational leadership is intellectual stimulation. The transformational leadership using this approach stimulate

followers to be creative and innovative (Bass, 1985, 1990; Northouse, 2010). The fourth and final factor of transformational leadership is individualized consideration.

Table 2.7 **Characteristics of Transformational and Transactional Leadership**

TRANSFORMATIONAL LEADERSHIP	TRANSACTIONAL LEADERSHIP
Factor 1: Idealized Influence Provides vision and sense of mission, instills pride, gains respect and trust.	***Factor 5: Contingent Reward*** Contracts exchange of rewards for effort, promises rewards for good performance, recognizes accomplishments
Factor 2: Inspirational Motivation Communicates high expectations, uses symbols to focus efforts, expresses important purposes in simple ways.	***Factor 6: Management-by-Exception (Active)*** Watches and searches for deviations from rules and standards, take corrective action.
Factor 3: Intellectual Stimulation Promotes intelligence, rationality, and careful problem solving.	***Factor 7: Management-by-Exception (Passive)*** Intervenes only if standards are not met.
Factor 4: Individualized Consideration Gives personal attention, treats each employee individually, coaches, advises.	***Factor 8: Laissez-Faire*** Abdicates responsibilities, avoids making decisions.

Note. Adapted from Exhibit 1, p. 22, in Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. Organizational Dynamics, 18)3), 19-31. Retrieved from: https://www.sciencedirect.com/science/article/pii/0090261690090061S

Leaders who do this provide a supportive environment and climate for followers, and are attune to the followers' individual needs (Bass, 1985, 1990, Northouse, 2010). Further, as described by Barbuto & Cummins-Brown (2007), leaders who engage these four leadership approaches "tend to gain extra effort from employees, experience higher employee satisfaction, high productivity and greater organizational effectiveness" (p. 1). Transactional leadership behaviors are just that—transactional (Bass, 1985, 1990; Northouse, 2010). The range of transactional leadership behaviors are influential in that it is in the followers' best interest to do what the leader wants (Bass, 1985, 1990; Kuhnert, 1994; Northouse, 2010). The Bass (1985, 1990) transactional leadership model

consists of four factors. The contingent reward factor is an exchange between a leader and follower in which the follower receives an agreed upon a reward or payment contingent on their work, loyalty, etc. (Bass, 1985, 1990; Northouse, 2010). There are two management-by-exception factors—one is active and the other is passive. The active approach involves the leader actively looking for violations and mistakes and then giving the follower corrective criticism, negative feedback, or negative reinforcement (Bass, 1985, 1990; Northouse, 2010). A leader taking a passive approach waits for a violation, mistake, or problem to arise and only then intervenes (Bass, 1985, 1990; Northouse, 2010). The final transactional leadership factor is a laissez-faire approach, which is essentially the absence of leadership (and in future iterations of the model shifts out of transactional leadership into a stand-alone category called non-leadership).

Through collaborative research and scholarly dialogue, Avolio and Bass (1993, 1994), refined and evolved the conceptualization of transformational and transactional leadership into the Full Range of Leadership Model. Fundamental to the model is that "every leader displays each style to some degree" (Avolio, 2010, p. 67), depending on the context, situation, organizational need, leader, and/or follower. This is the originality of the Full Range of Leadership Model—the "concept of a 'range' of leadership behaviors which all leaders demonstrate" (Kirkbride, 2006, p. 23) and the benefit of shifting away from the transactional towards the transformational approaches to improve performance and organizational effectiveness.

The Full Range of Leadership Model, depicted in Figure 2.4, is organized around two axes. The horizontal axis reflects the extent to which is a leader is active or passive in interactions with followers, as well as the mission and objectives of the organization—

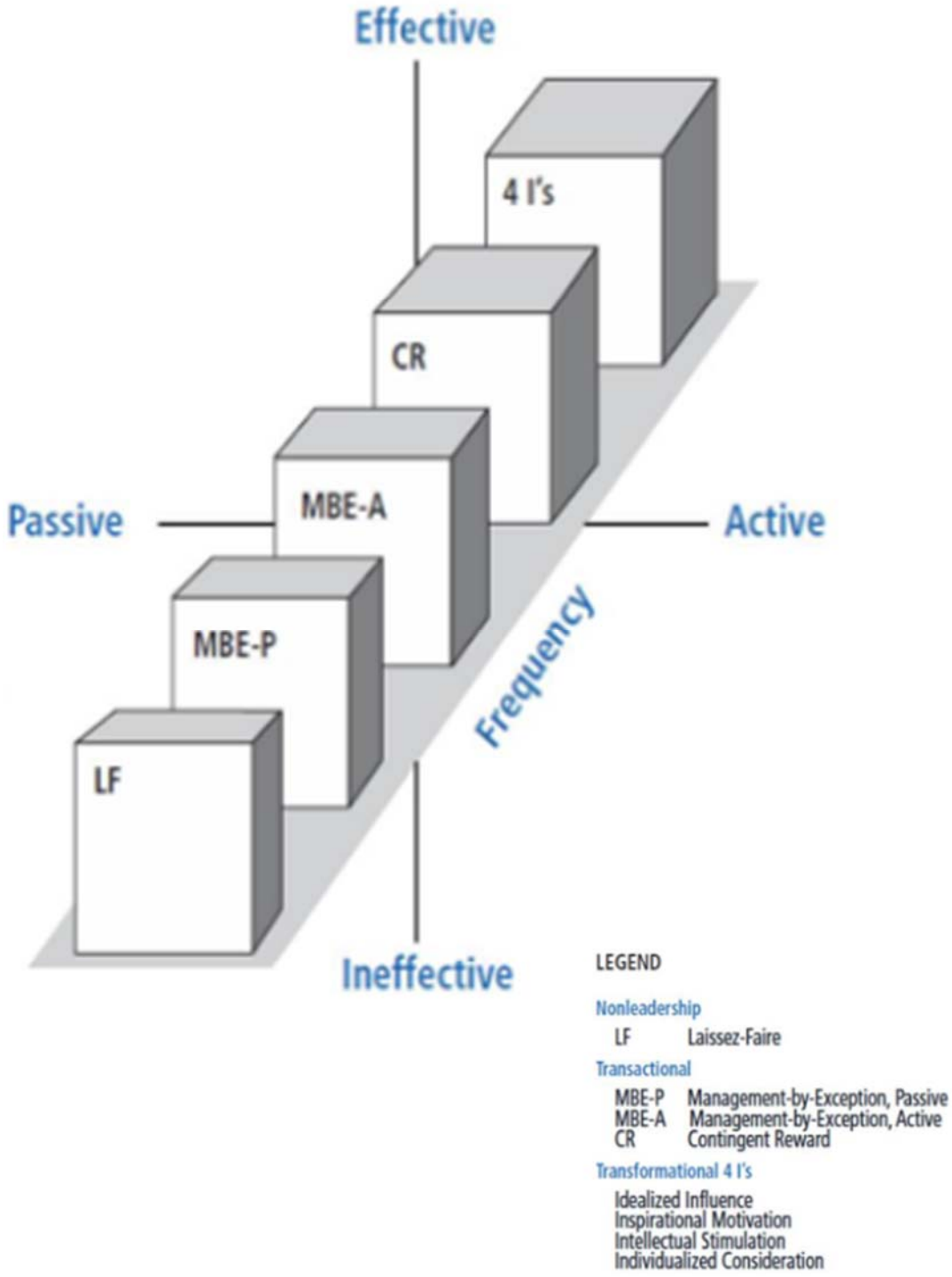
that is, the extent of the leader's engagement in leadership (Avolio & Bass, 1994). The vertical axis reflects the effectiveness the leadership approach or style in terms of follower, team, and organizational outcomes (Avolio & Bass, 1994).

To operationalize the model, Avolio and Bass created the Multifactor Leadership Questionnaire (MLQ) measurement, now known as the MLQ 5X instrument. The measurement can be used for self-report or rater feedback via a 360-degree tool. The original 142 item pool for the instrument was "developed by combining a review of the literature with an open-ended survey asking 72 executives for their descriptions of attributes of transformational and transactional attributes" (Lowe, Kroeck, & Sivasubramaniam, 1996, p. 386). The current tool has 73 items and has been examined in more than 75 research studies including a meta-analysis review (Lowe et al., 1996). The measurement has shown good reliability and validity.

Emotional Intelligence and Full Range of Leadership Model. Numerous conceptual connections between emotional intelligence and the Full Range of Leadership model, and specifically transformational leadership, have been identified in the literature. Bass (1998) postulated that emotional intelligence qualities of self-awareness, self-sacrifice, and self-control are important for transformational leadership idealized influence behaviors and attributions. Further, Bass (1998) argued that empathy may be required for transformational leaders to display individually considerate behaviors to foster individuation, mentoring, and development of followers.

Goleman, Boyatzis, & McKee (2002), Higgs (2002), and Sosik and Megerian (1999) maintained that a leader who is emotionally intelligent or who has strength in certain

Figure 2.4 **Full Range of Leadership Model**



Note. Adapted from Bass, B. M., & Avolio, B. J., (1994). Improving organizational effectiveness through transformational leadership. Thousand Oaks, CA: Sage Publications.

aspects of emotional intelligence is likely to exhibit transformational leadership behaviors. For example, Goleman, Boyatzis, & McKee (2002) asserted that a leader who possesses emotional intelligence competencies such as self-awareness, self-confidence, transparency, and empathy are well-prepared for transformational leadership behaviors associated with idealized influence and inspirational motivation. Goleman (2005) and Sosik and Megerian (1999) also suggested that leaders who have a high emotional intelligence competency in emotion management will be better positioned to consider the needs of followers over her/his own personal needs as the leader. Sosik and Megerian (1999) identified empathy as important for transformational leaders to be able to display individualized consideration to followers. Further, leaders who are emotionally self-aware may have a higher sense of purpose and meaning, have strong convictions in her/his beliefs, demonstrate determination and far-sightedness, and be expressive with language and non-verbal cues. These characteristics are all associated with the transformational behavior of idealized influence and inspirational motivation (Bennis, 1989; Frankel, 1992; Sosik & Megarian, 1999).

Lindebaum and Cartwright, 2010) reported several conceptual connections, that they identified in the literature, between emotional intelligence and transformational leadership. First, that Caruso and Salovey (2004) argued it is tough to inspire followers, to challenge their primary assumptions, and to enable and empower them, without having strong emotional intelligence. Second, that Küpers and Weibler (2006) suggested a leader with low emotional intelligence could find it challenging to engage in transformational behaviors such as individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence "without the ability to accurately appraise and

express emotions in the self and others" (Lindebaum & Cartwright, 2010, p. 1320). Küpers and Weibler (2006) and Lindebaum and Cartwright (2010) expressed that this is a fundamentally important point for "failure to do so would create a dissonance between the leader and follower, thereby preventing the very transformational process from taking effect (Lindebaum & Cartwright, 2010, p. 1320). Similarly, the transformational leaders' utilization of emotions to facilitate thinking could be helpful for inspirational motivation (Lindebaum & Cartwright, 2010). For example, emotional intelligence may be helpful for instilling confidence and hope in followers who feel stressed and overwhelmed by the work at hand (Lindebaum & Cartwright, 2010).

George (2000) posited that emotional appeals may be used by transformational leaders for inspirational motivation, and Shamir (1991) contended that emotionally intelligent leaders who provide followers with purpose and meaning, delivered in an emotionally expressive manner, may inspirationally motivate followers to perform beyond expectations. Higgs (2002) suggested interpersonal sensitivity, influence, conscientiousness, and integrity are connected to the transformational leadership individualized consideration, and also maintained that interpersonal sensitivity and intuitiveness are associated with transformational leadership intellectual stimulation. Additionally, Brown, Bryant, & Reilly (2006), noted that adherence to professional and moral standards of behavior are common aspects of both emotional intelligence and transformational leadership behavior. Fundamental to all of this, posited Ashkanasy and Tse (2000), is the need for a transformational leader to "possess more developed communication and interpersonal skills" (p. 231).

Many research studies exploring the association between emotional intelligence and the Full Range of Leadership—transformational and transactional leadership—have been completed. A review of the published empirical literature found an interesting mix of results. The meta-analysis conducted Harms and Credé (2010) is one of the most often cited studies about the relationship between emotional intelligence and transformational and transactional leadership. The meta-analysis (Harms & Credé, 2010) involved 106 articles, and only included studies that "reported zero-order correlations or data from which unbiased estimates of zero-order correlations could be computed. Studies that reported statistically significant correlations, but not non-significant correlations" (p. 8) were excluded. The final data consisted of correlations from 62 independent samples representing data from more than 7,000 leaders. The Multifactor Leadership Questionnaire (MLQ) was the most often used measure of transformational leadership. An array of emotional intelligence instruments was used. Harms and Credé (2010) found a "moderately strong" (p. 9) relationship between emotional intelligence and transformational leadership. When the ratings of both emotional intelligence and leadership approach were provided by the same source (self, subordinates, peers, or superiors), the results indicated a validity estimate of .59. However, when the emotional intelligence ratings came one source and the leadership approach ratings came from another, Harms & Credé (2010) found the validity estimate dropped to 0.12. Also, interestingly, the competency, disposition, and trait measures of emotional intelligence "tended to show higher validities than ability-based measures of emotional intelligence" (p. 5).

Another review of the empirical literature was conducted to capture more recent studies and found most of the studies showed support for a connection between emotional intelligence and transformational leadership. A search of the literature found 29 studies published between 2000 and 2015 that examined the association between emotional intelligence and transformational leadership (see Table 2.8). The studies were categorized into three streams. The first stream comprises ability-based emotional intelligence tests that utilize a performance-based approach—and of these eight studies in this stream, five showed support or partial support for the connection between emotional intelligence and transformational leadership. The second stream consists of ability-based measures that utilize self-assessment or other rater reports of emotional abilities and emotionally intelligent behavior—and eight of these nine studies showed support for the connection between emotional intelligence and transformational leadership. The third stream includes measures that utilize self-assessment or other rater reports of emotional intelligence viewed as a competency, disposition, or trait—and of these twelve studies, eleven showed support for the connection between emotional intelligence and transformational leadership. Thus, collectively, the conceptual and empirical literature suggests there is a connection between emotional intelligence and transformational leadership, and especially from the perspective of emotional intelligence as an array of competencies, dispositions, self-perceptions, or traits.

Leadership Effectiveness

The criteria and objectives selected to evaluate leadership effectiveness, as well as the consequences of leadership effectiveness, are both explicit and implicit conceptions of leadership (Yukl, 1998/2013). Barnard (1968) opined that leadership

Table 2.8 Studies Examining Linkage Between EI and Full Range of Leadership

	EI Measurement		Sample Description		Full Range of Leadership		
Article	**Tool**	**Source**	**Sample Size**	**Sample Type**	**Outcome Approach**	**Source**	**EI-Factor Link**
Stream 1							
Chatterjee & Kulakli (2015)	MSCEIT	Self	151	Bank Managers	*TL	Subordinates	Not Supported
Clarke (2010)	MSCEIT	Self	67	Project Managers at National Organizations	TL	Self	Supported
Coetzee & Schaap (2005)	MSCEIT	Self	100	Managers	TL, CR, *MBE	Self	Supported
Føllesdal & Hagtvet (2013)	MSCEIT	Self	104	Executives	*TL	Subordinates	Not supported
Jin et al. (2008)	MSCEIT	Self	178	Managers (PT MBA students)	TL	Subordinates	Supported
Leban & Zulauf (2004)	MSCEIT	Self	24	Project Managers at Six Organizations	TL, CR, *MBE, *LF	Subordinates, Stakeholders	Supported
Rubin et al. (2005)	DANVA	Self	145	Managers	TL, *CR	Subordinates	Partially supported
Weinberger (2009)	MSCEIT	Self	138	Managers	*TL, *CR, *MBE, *LF	Subordinates	Not supported
Stream 2							
Cavazotte et al. (2012)	WLEIS	Self	134	Team Managers	TL	Subordinates	Supported
Downey et al. (2006)	SUIET & TMMS	Self	146	Female Project Managers	TL	Self	Supported
Gardner & Stough (2002)	SUIET	Self	110	High-Level Managers	TL, CR, MBE, *LF	Self	Supported
Hur et al. (2011)	WLEIS	Self	55	Public sector department leaders	TL	Subordinates	Supported
Lindebaum & Cartwright (2010)	WLEIS	Self, Subord-inates, Managers	55	Project Managers	*TL	Subordinates, Managers	Not supported
Ugoani et al. (2015)	SSREI	Self	47	Managers	TL	Subordinates	Supported
Palmer et al. (2001)	TMMS	Self	43	Manager	TL, CR, *MBE	Self	Supported
San Lam & Higgins (2013)	WEIS	Self	50	Managers at construction companies	TL, *LF	Subordinates	Supported
Wang & Huang (2009)	WLEIS	Self	51	Managers at textile companies	TL	Subordinates	Supported

	EI Measurement		Sample Description		Full Range of Leadership		
Article	**Tool**	**Source**	**Sample Size**	**Sample Type**	**Outcome Approach**	**Source**	**EI-Factor Link**
Stream 3							
Astrup & McArthur (2011)	TEIQue	Self	16	Information Systems Managers	TL	Self	Supported
Barbuto & Burbach (2006)	EI tool	Self	80	Elected Public Officials	TL	Subordinates	Supported
Barling et al. (2000)	EQ-i	Self	49	Elected public leaders	TL, CR	Subordinates	Supported
Brown et al., (2006)	EQ-i	Self	161	Managers & Supervisors	*TL, *CR	Subordinates	Not supported
Butler & Chinowsky (2006)	EQ-i	Self	130	Senior Executives in Construction	TL	Self	Supported
Duckett & Macfarlane (2003)	SMS-EQ	Self	13	Retail Managers	TL, CR, MBE	Direct Managers	Supported
Hackett & Hortman (2008)	ECI	Self	46	Assistant Principals	TL	Self	Supported
Mandell & Pherwani (2003)	EQ-i	Self	32	Managers	TL	Self	Supported
Sivanathan & Fekken (2002)	EQ-i	Self	58	Residence Hall Managers	TL	Students, Supervisors	Supported
Sosik & Megerian (1999)	ECI	Self	63	Managers	TL	Self, subordinates	Supported
Spano-Szekely et al. (2016)	TEIQue	Self	148	Nurse Managers	TL, *LF	Self	Supported
Sunindijo et al. (2007)	ECI	Self	30	Project Managers & Engineers	TL	Supervisors	Supported

Notes.

1) Modeled on a table in Walter, Cole, & Humphrey (2011).

2) Emotional Intelligence instruments: DANVA = Diagnostic Analysis of Nonverbal Accuracy; ECI = Emotional Competency Inventory; EI Measure = instrument created by study authors; EQ-i = Emotional Quotient Inventory; MSCEIT = Mayer-Salovey-Caruso Emotional Intelligence Test; SSEIT = Schutte Self-Report Emotional Intelligence Test; SUIET = Swinburne University Emotional Intelligence Test; TEIQue = Trait Emotional Intelligence Questionnaire; TMMS = Trait Meta Mood Scale; WEIS = Wong's Emotional Intelligence Scale; WLEIS = Wong-Law Emotional Intelligence Scale.

3) Outcome Approach abbreviations: TL =Transformational Leadership, CR = Contingent Reward, MBE = Management-by-Exception, LF = Laissez-Faire. * = Emotional intelligence was not found to significantly relate with this variable.

4) Full Range of Leadership instruments: MLQ, MLQ 5 X, MLQ 5Xs = Multifactor Leadership Questionnaire, various versions; TLI = Transformational Leadership Inventory; TLQ = Transformational Leadership Questionnaire; Performance Appraisals = Evaluation tool used within the organization(s).

effectiveness is of the utmost importance and is inherently linked to follower cooperation. Scholars contend that leaders high in emotional intelligence are more effective as they have greater insight about what type of leadership approach or style to employ, as well as what rational or emotional appeal to utilize, depending on the situation (Butler & Chinowsky, 2006; George, 2000; Goleman, 1998a; Goleman, Boyatzis, & McKee, 2002; Mayer & Salovey, 1995; Yukl, 1998/2013). Effective leaders "make significant and measurable difference in the performance of their organizations" (Kilburg & Donohue, 2011, p. 11).

Based on several decades of research, Kouzes and Posner (1987/ 2017) developed a conceptual framework for leadership effectiveness. This research included in-depth interviews and written case studies from personal-best leadership experiences from more than 1,300 managers and leaders in both the private and public sectors (Kouzes & Posner, 2002; Northouse, 1997/2012). From their research, Kouzes and Posner (1987) identified five salient practices that reflect exemplary leadership: (i) Model the way, (ii) Inspire a shared vision, (iii) Challenge the process, (iv) Enable others to act, and (v) Encourage the heart.

To purposefully represent their concept, Kouzes and Posner (1987) developed the Five Practices of Exemplary Leadership model (1987/2017). The model puts forward the "fundamental practices that enable leaders to get extraordinary things accomplished" (Northouse, 1997/2012, p.184), and for each practice there are two commitments that serve as strategies. Sashkin and Rosenbach (2001) noted the model is "specific and behaviorally focused" (p.27). Northouse (1997/2012) emphasized that "the model is not about personality: It is

about practice" (p. 185). The Five Practices of Exemplary Leadership model (Kouzes & Posner, 1987/2017) is presented in Figure 2.5.

Figure 2.5 **Five Practice of Exemplary Leadership Model**

Practices of Exemplary Leadership	Strategies
Model the Way	1. Clarify values by finding your voice and affirming shared ideals. 2. Set the example by aligning actions with shared values.
Inspire a Shared Vision	1. Envision the future by imaging exciting and ennobling possibilities. 2. Enlist others in a common vision by appealing to shared aspirations.
Challenge the Process	1. Search for opportunities by seizing the initiative and by looking outward for innovative ways to improve, 2. Experiment and take risks by constantly generating small wins and learning from experience.
Enable Others to Act	1. Foster collaboration by building trust and facilitating relationships. 2. Strengthen others by increasing self-determination and developing competence.
Encourage the Heart	1. Recognize contributions by showing appreciation for individual excellence. 2. Celebrate the values and victories by creating a spirit of community.

Note. Kouzes & Posner (1987/2017).

To operationalize the model, Kouzes and Posner (2002) created the Leadership Practices Inventory (LPI). The measurement was developed "through a triangulation of qualitative and quantitative research methods and studies" (Kouzes & Posner, 2002, p. 1). The instrument went through several iterative psychometric processes, and validation studies across a fifteen-year period consistently confirmed the reliability and validity of the measurement (Kouzes & Posner, 2002). In general, LPI scores have been found to be unrelated to various demographic characteristics (e.g. age, marital status, education level, years of experience) as well as organizational features (e.g. size, functional area, line

versus staff versus leadership position) (Kouzes & Posner, 2002, p. 8). The LPI is available in both self-report and 360-degree versions, and to date more than three million people have been assessed via the LPI (Kouzes & Posner, 2018).

Also, in an effort to understand the fundamental nature of effective leadership, George (2000) reviewed and synthesized the observations and literature syntheses put forward by Conger and Kanungo (1998), Locke (1991), and Yukl (1998), among others. Through this process, a slate of essential elements for effective leadership were identified. George (2000) asserted that there are five fundamental elements of effective leadership:

1. Development of a collective sense of goals and objectives and how to go about achieving them;
2. Instilling in others knowledge and appreciation of the importance of work activities and behaviors;
3. Generating and maintaining excitement, enthusiasm, confidence, and optimism in an organization as well as cooperation and trust;
4. Encouraging flexibility in decision making and change; and,
5. Establishing and maintain a meaningful identity for an organization (p. 1030).

Emotional intelligence and leadership effectiveness. Emotional intelligence has been conceptually and empirically linked to leadership effectiveness. Some scholars contend emotional intelligence is a foundational element of leadership effectiveness (Goleman, 1998; Goleman, Boyatzis, & McKee, 2002; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003a). Other scholars view emotional intelligence as having an intuitively

compelling relationship with leadership effectiveness (Ashkanasy & Tse, 2000; Caruso, Mayer, & Salovey, 2002; Daus, 2006/2013; George, 2000). Additionally, George (2000) argued that emotionally intelligent leaders promote effectiveness at all levels in organizations.

Following are three salient examples illustrating the conceptual connections between emotional intelligence and leadership effectiveness that have been put forward in the literature. First, leaders utilize their own emotions to enhance information processing about challenges, issues, threats, and opportunities facing the organization (George, 2000). Johnson, Aiken, and Steggerda (2005) suggested this reflects the idea of listening to oneself as data (Heifetz & Linsky, 2002), and thus "emotions can become leadership resources and/or tools for enacting a more effective leadership practice (Johnson et al., 2005, p. 243). Additionally, Yukl (2013) noted that emotional self-awareness "makes it easier to understand one's own needs and likely reactions if certain events occurred, thereby facilitating evaluation of alternative solutions" (p. 152).

Second, Cherniss (1998), George (2000), and Goleman (1995) posited that leaders high in emotional intelligence are adept at communicating and managing follower' emotions, and this is important for leadership effectiveness. Effective leaders instill in others an appreciation of the importance of the work activities, build consensus and coordinate team efforts, appreciate multiple perspectives, and avoid unproductive conflicts (Cherniss, 1998; George, 2000). Additionally, George (2002) asserted that effective leaders need to understand and influence followers' emotions so followers are "aware of the serious nature of problems, yet, given the leader's vision are enthusiastic about resolving the problems and feel optimistic about personal contributions" (p. 1041).

An important part of this, suggested George, is the ability for a leader to distinguish between emotions that followers express and the feelings which followers are "actually experiencing, their 'real' feelings" (p. 1041). Further, Riggio and Reichard (2008) postulated the emotional sensitivity of a leader is critical for assessing negative feelings within the organization, especially with the "increasing concern about dysfunctional emotions and behaviors in the workplace, including expressions of anger leading to acts of violence" (p. 174).

A third example of the conceptual connection between emotional intelligence and leadership effectiveness is emotional self-control or self-regulation. Cherniss (1998) asserted that educational leaders "work in highly charged environments" (p. 27) and how these leaders modulate their own "emotional reactions will strongly affect their leadership" (p.27). Taking the importance of emotional self-control in a different direction, Riggio and Reichard (2008) posited that leaders "must often stifle the expression of their felt emotional states to create a calm and controlled impression" (Riggio and Reichard, 2008, p. 174). In particular, Riggio and Reichard (2008) spoke to managing one's emotions during crises as essential for leadership effectiveness Other situations, identified in the literature, in which a leader's emotional self-regulation is especially important include engaging in heated negotiations, interviewing for a position, reprimanding a subordinate, and entering a troubled organization that requires reorganization, among others (Goleman, 1995; Mayer & Caruso, 2002; Riggio & Reichard, 2008). Goleman, Boyatzis, and McKee asserted that "leaders who freely vent their anger, catastrophize, or otherwise let their distressing emotions run amok can't also lead the group into a positive register, where the best work gets done" (p. 46).

Specific to the Five Practices of Exemplary Leadership model (Kouzes & Posner, 1987/2017), Higgs (2002) asserted the abilities to be emotionally resilient, to drive motivation, and to be aware of followers' feelings and needs are conceptually connected to the practices of challenging the process and enabling others. For the practices of modelling the way, inspiring a shared vision, and encouraging the heart, Higgs (2002) posited that several aspects of emotional intelligence are directly connected. The aspects of emotional intelligence conceptually linked by Higgs (2002) included the ability to display a commitment to a course of action when facing a challenge, understanding the ethical requirements, being attune to the feelings and needs of others, and using insight to assess and implement decisions when faced with ambiguous or incomplete information.

In addition to conceptual connections, numerous research studies exploring the connection between emotional intelligence and leadership effectiveness have been conducted. Goleman, Boyatzis, and McKee (2013) reported that their (unpublished) analysis of data from close to 500 competence assessments from a broad array of organizations—including academic institutions, global companies, government agencies, and health care organizations—showed that "the higher the rank of those considered star performers, the more EI competencies emerged as the reason for their effectiveness" (p. 250).

Rosete and Ciarrochi (2005) investigated the relationship between emotional intelligence, personality, cognitive intelligence, and leadership effectiveness—and is an often-cited study in the literature. The study sample was 41 executives from an Australian public service organization. To assess emotional intelligence, the participants completed the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT).

Personality was measured using the 16 Personality Factor Questionnaire (16PF), cognitive ability was measured via the Wechsler Abbreviate Scale of Intelligence (WASI), and leadership effectiveness was measured using the organization's internal performance management system. The participants self-reported on the MSCEIT, 16PF, and WASI. The participants direct managers completed the performance evaluations to assess the "what" and "how" of the executives' performance. The Rosete and Ciarrochi (2005) study findings suggested that "executives higher on emotional intelligence are more likely to achieve business outcomes and be considered as effective leaders by their subordinates and direct manager" (p. 396). Additionally, regression analysis revealed that emotional intelligence, specifically the capacity to perceive emotions, was able to predict effective leadership.

Amram (2009) conducted a study with 42 chief executive officers (CEOs). The CEOs' emotional intelligence was assessed through both self-report and staff member observer ratings using the Wong and Law Emotional Intelligence Scale (WLEIS). Leadership effectiveness was computed as the average score on seven aspects of leadership performance outcomes as rated by the CEOs' staff members. Although CEO self-reported emotional intelligence did not correlate significantly with leadership effectiveness, as assessed by the staff members, the staff members' ratings of the CEOs' emotional intelligence significantly correlated with leadership effectiveness.

May-Vollmar (2017) conducted a study with 112 public school administrators in California. The Leadership Practices Inventory (LPI) (Kouzes & Posner, 1987) instrument was utilized to assess leadership effectiveness, and the Genos Emotional Intelligence Inventory was utilized to assess emotional intelligence. May-Vollmar (2017)

found a strong positive relationship between leadership effectiveness and emotional intelligence, and a linear regression analysis indicated that 28% of the administrators' effective leadership practices could be attributed to emotional intelligence. Collectively, the findings of Amram (2009). Goleman, Boyatzis, and McKee (2013), May-Vollmar (2017), and Rosete and Ciarrochi (2005) provide solid empirical evidence suggesting that there is a positive connection between emotional intelligence and effective leadership.

In the empirical literature stream, five studies engaged college and university presidents to assess their effective leadership practices using the using the Leadership Practices Inventory (LPI) (Kouzes & Posner, 1987). The studies ranked the effective leadership practices in which the presidents most frequently engaged, and some of the studies reported some interesting scoring information. The Five Practices of Exemplary Leaders (Kouzes & Posner, 1987) are: Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart. The studies and their findings are presented in Table 2.9.

Table 2.9 **College/University Presidents and Five Practices of Exemplary Leadership**

STUDY	Bauer (1993)	Brown (1997)	Grafton (2009)	Hempowicz (2010)	O'Dell (2014)
POPULATION	College Presidents in New England	All types of colleges and university across the US	Community College Presidents in Oklahoma	Private Title III and Title V-eligible Institutions	Christian Colleges & Universities
SAMPLE SIZE	142	329	5	110	32
RANKED PRACTICES OF EXEMPLARY LEADERSHIP	Enabling Challenging Modeling Encouraging Inspiring	Enabling Encouraging Modeling Inspiring Challenging	Enabling Encouraging Modeling Challenging Inspiring	Enabling Modeling Inspiring Encouraging Challenging	Inspiring Enabling Modeling Challenging Encouraging

Bauer (1999) and Brown (1997) conducted studies to determine if the leadership practices of college presidents were different from leaders in business and industry.

Bauer (1999) found the college presidents scores were significantly higher than the business leaders, and Enabling was ranked highest by both the college presidents and the business leaders. Brown (1997) found that four of the presidents' mean scores on the leadership practices were higher than the mean scores of the normative executive sample. Grafton (2009) found that presidents ranked in the "high" range (70th percentile or above) on all of the scales. O'Dell (2014) also looked at spiritual leadership practices and found statistically significant correlations between the five exemplary leadership practices and spiritual leadership practices. Interestingly, three of the studies—Bauer (1999), Brown (1997), and Grafton (2009)—found the presidents to have high scores in leadership effectiveness. The other two studies did not report scores for leadership effectiveness. Also, across the five studies, it is interesting that Enabling was consistently ranked as the most frequently or second most frequently utilized effective leadership practice, while Challenging was ranked as the least or second least frequently used effective leadership practice in four of the five studies.

To recap, emotional intelligence has been conceptually and empirically linked to leadership effectiveness. Some scholars contend emotional intelligence is a foundational element of leadership effectiveness (Goleman, 1998; Goleman, Boyatzis, McKee; 2002; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003a). Other scholars view emotional intelligence as having an intuitively compelling relationship with leadership effectiveness (Ashkanasy & Tse, 2000; Caruso, Mayer, & Salovey, 2002; Daus, 2006/2013; George, 2000). Finally, George (2000) argued that emotionally intelligent leaders promote effectiveness at all levels in organizations.

Summary

This section about leadership and emotional intelligence began by introducing the leadership construct, as well as identifying delimitations of the leadership literature review. Next, a presentation and synthesis of the literature about the connection between emotional intelligence and leadership was presented. This included the conceptual and theoretical literature for major leadership approaches and perspectives, and the empirical evidence showing the connections with emotional intelligence. The following section addresses the context of higher education and the connection, leadership and the higher education environment, and emotional intelligence and college and university presidential leadership.

Higher Education

Higher education in the United States is an immense sector, consisting of more than 4,700 colleges and universities (U.S. Department of Education, 2017), more than 20.4 million students (U.S. Department of Education, 2017), about 4 million employees including more than 1.6 million faculty members (HigherEdJobs, 2017; U.S. Department of Education, 2017), and estimated aggregate annual expenditures exceed $400 billion (Bok, 2013, p. 9), excluding the for-profit institute ions. Colleges and universities are among our nation's most important social institutions, knowledge generators, and economic drivers (Bok, 2013; Fullan & Scott, 2009; Lane, 2017; Thorp & Goldstein, 2010). As described by Bok (2013), colleges and universities are now our:

> chief supplier of three ingredients essential to national progress—new discoveries in science, technology, and other fields of inquiry; expert knowledge of the kind essential to the work of most important institutions;

> and well-trained adults with the skills required to practice the professions, manage a wide variety of organizations, and perform an increasing proportion of the more demanding jobs in an advanced, technologically sophisticated economy. In addition, they help to strengthen our democracy by educating its future leaders, preparing students to be active, knowledgeable citizens, and offering informed critiques of government programs and policies. Not least, they supply the knowledge and ideas that create new industries, protect us from disease, preserve and enrich our culture, and inform us about our history, our environment, our society, and ourselves (p. 1).

Colleges and universities are anchor institutions for our country, and who leads them and how they are led will have "a lasting impact on not just the institutions themselves, but on the surrounding communities and our entire nation" (Lane, 2017, p. 2), and the world.

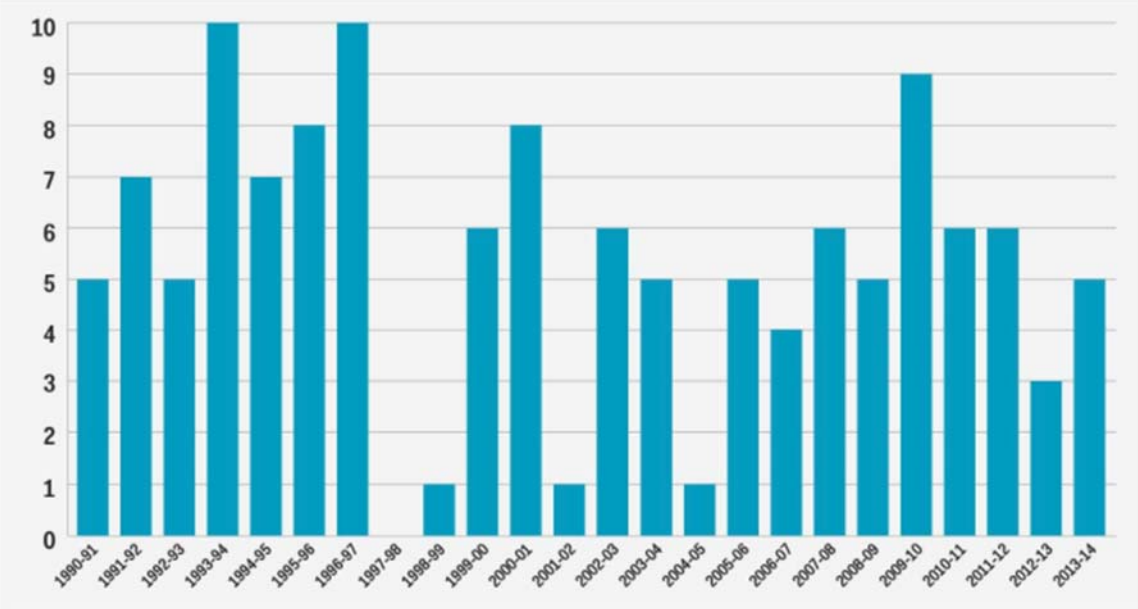
Descriptive categories of higher education institutions. Within this vast enterprise that is higher education in America, for descriptive purposes the system has been categorized into several kinds of institutions. Each grouping has distinct aims and characteristics. The first group, called research universities, includes about two hundred institutions who have highly competitive admissions, enroll more than a quarter of all the students in the system, and award the majority of the doctoral degrees (Bok, 2013). Research universities have the largest budgets, the top professional schools, the most extensive libraries (Bok, 2013). The most prominent research universities sit at the top the national and international rankings, have the largest endowments, and receive the largest part of the billions of federal dollars for academic research funding (Bok, 2013).

Comprehensive universities are the second category of higher education institutions. This group of more than 700 private and public universities offer a variety of baccalaureate, master's, and doctoral programs while also conducting a modest amount of research (Bok, 2013). The student bodies at comprehensive universities tend to be diverse, including a larger percentage of commuters, older students, and part-time students (Bok, 2013). Many of the comprehensive universities are located in large metropolitan areas, and thus seek to serve the educational, employment, and community needs of their surrounding urban area (Bok, 2013). Additionally, with technology advancements and the evolving needs of students, many comprehensive universities now offer online courses and degree programs.

The third category of higher education institutions are the four-year colleges that award baccalaureate degrees. This category comprises nearly 1,000 primarily private nonprofit colleges, many of which are more than 200 years old and began under religious denomination sponsorship (Bok, 2013). The four-year colleges tend to be residential institutions with enrollments under 3,000 students, and many of the colleges attract outstanding students and offer high quality programs (Bok, 2013). While most four-year colleges began with a focus on the liberal arts, many have found it necessary to offer vocational programs in order to survive as more students come to college to prepare for a specific career rather than a liberal arts perspective (Bok, 2013). Some four-year colleges have more applicants than they can accept, substantial endowments contributed by alumni, and are financially secure. Concurrently, many of these private colleges have high competition for undergraduate students and struggle with finances and

enrollments—with some closing each year (Bok, 2013). Figure 2.6 shows the number of four-year colleges that have closed each year between 1990-2014.

Figure 2.6 **Four-Year College Closings, 1990-2014**



Note. Adapted from Jacobs, P. (2015, March 12). Here's how many colleges have closed in the past 25 years. *Business Insider*. Data from U.S. Department of Education, National Center for Education Statistics.

The fourth category of higher education institutions comprises the more than 1,000 two-year, nonprofit community colleges (Bok, 2013). The community college movement began in the early twentieth century primarily to respond to students seeking a baccalaureate degree but needing a lower-cost school near to home which they could attend for two years prior to transferring to a four-year college or comprehensive university (Bok, 2013). Following World War II, vocational education began to attract many students and community colleges began to offer degree programs to train students for specific jobs and in collaboration with local employers (Bok, 2013). At most community colleges, only a small number of the faculty members are doctorally-

prepared. Additionally, most are not residential schools. Interestingly, "community colleges have enjoyed a book over the past several decades…from 1963 to 2006 there enrollments grew by 740%" (Bok, 2013, p. 12). Collectively, community colleges account for nearly 40% of all undergraduate enrollments, and currently enroll more than 7 million students attending for course credits—attracting part-time students "seeking the American ideal of opportunity" (Bok, 2013, p. 12), who are even more diverse than at the other institutions, and who might not otherwise enroll. Of these students, "45% are minorities and 42% are first-generation college students…many arrive lacking basic skills in reading, writing, and mathematics and are required to take remedial courses" (Bok, 2013, 12).

For-profit institutions constitute the final category of higher education institutions, and is a growing sector consisting of more than 1,300 schools (Bok, 2013). About half of these schools give baccalaureate, master's, and doctoral degrees; while the rest are colleges or institutions that grant certificates or other degrees signifying completion of a training program for a specific occupation such as the culinary arts or cosmetology (Bok, 2013). Many of the for-profit institutions offer online courses and programs especially designed for older students seeking to prepare for a new career or higher-paying job. Collectively, the for-profit schools award about 10% of all college degrees (Bok, 2013). The University of Phoenix is now the largest for-profit university, with enrollment exceeding 400,000 students across 38 states, the District of Columbia, Puerto Rico, Canada, Mexico, Netherlands, and United Kingdom (University of Phoenix, 2018). In 2009, University of Phoenix generated $3.77 billion in revenue. Pell Grants and other federal financial aid programs were the source of 86% of the revenue (Bok, 2013, p. 13).

To summarize, over the centuries American higher education has evolved into a vast and complex sector. The sector involves millions of Americans and hundreds of billions of dollars. Most importantly, our colleges and universities are among the most important anchor institutions for our local communities and our nation at large.

Leadership and the higher education environment. In his seminal book, *The American College and University,* Rudolph (1962/1990) traced the history of American colleges and universities in their "development from simple institutions to complex organizations…that required a new kind of executive officer, new methods of financing, and new areas of administration" (p. 417) from the 19th into the 20th century. Today, in the second decade of the 21st century, colleges and universities are even more highly complex institutions and facing intense external and internal pressures (Bok, 2013; Fullan & Scott, 2009; Gagliardi, Espinosa, Turk, & Taylor, 2017; Jaschik & Lederman, 2017; Ruben, De Lisi, & Gigliotti, 2017). In addition to the scholarly and popular literature, the perspectives of college and university presidents offer valuable insights about the higher education environment. Two recent studies offer this information: (a) the American Council on Education's *American College President Study 2017* (Gagliardi et al.), and (b) the *2017 Survey of College and University Presidents*, conducted by published by Gallup and *Inside Higher Ed* (Jaschik & Lederman, 2017). The dramatic changes in the higher education landscape (Bok, 2013; Fullan & Scott, 2009; Gagliardi et al., 2017; Jaschik & Lederman, 2017; Ruben et al., 2017) "have significantly altered the nature of the requirements for college and university leadership" (Ruben et al., 2017, e-location 96).

One of the most concerning external environmental factors currently affecting colleges and universities is the perceived stagnation of public support. Only twelve

percent (12%) of presidents believe most Americans understand the purpose of higher education (Jaschik & Lederman, 2017). Further, the majority of presidents (69%) believe that "anti-intellectual sentiment is growing in the U.S. (Jaschik & Lederman, 2017, p. 25). Misperceptions about the mission, campus environment, and value of a college and graduate education are deterrents for prospective students and families, donors, and policymakers (Jaschik & Lederman, 2017). Additionally, according the U.S. Department of Education (2017), the six-year graduation rate for first-time, full-time undergraduate students who began seeking a baccalaureate degree at a four-year institution in fall 2009 was only 59%. That is, 59% completed a baccalaureate degree by 2015 at the same institution where they started in 2009. Further:

- The six-year graduation rate at public institutions was 59%;
- The six-year graduation rate at private nonprofit institutions was 66%; and,
- The six-year graduation rate at private for-profit institutions was 23%.

Colleges and universities are being pressed to reassess their value propositions, develop entrepreneurial innovative resource strategies, better manage enrollment, further implement data-informed decision-making that prioritizes student success, and respond to data-enabled constituents (Gagliardi et al., 2017; Jaschik & Lederman, 2017).

Additionally, college and university presidents are addressing and pursuing diversity and inclusion across the enterprise. In the American Council on Education's *American College President Study 2017*, more than half (58%) of the presidents reported that racial climate on campus is more a priority than it was three years ago, and 44% of the presidents said it was about the same priority (Gagliardi et al., 2017). According to the *2017 Survey of College and University Presidents*, having sufficient funding to

provide financial aid to as many low-income students as their institution would like to have is a major enrollment concern for presidents (Jaschik & Lederman, 2017). A tenacious equity gap exists and having a diverse student body and faculty, attracting talented students who can succeed, and attracting top and diverse faculty are additional priorities of college and university presidents (Gagliardi et al., 2017; Jaschik & Lederman, 2017).

Constrained funding is a third external environmental factor affecting colleges and universities. According to the *2017 Survey of College and University Presidents,* just sixty percent (60%) of presidents are confident their institution will be financially sustainable for the next five years, and fifty-two percent (52%) are confident about their institution's financial health for the next ten (10) years (Jaschik & Lederman, 2017). In the *American College President Study 2017*, presidents cited revenues from state government (41%) and the federal government (28%) as the most likely funding resources to decrease, and "many college and university presidents see diminished state support as a troubling sign that is likely to continue" (Gagliardi et al., 2017, p. 54). Additionally, the majority of the presidents indicated that budget and financial management (68%) and fundraising (58%) are the "most time-consuming activities" (Gagliardi et al., 2017, p. x).

A fourth external factor in the environment is the digital revolution (Collins & Halverson, 2009), which in higher education is bringing waves of new opportunities—from instructional delivery and assessments of learning, to research, administrative operations, communications, entrepreneurial collaborations, and beyond (Bok, 2013; Ruben et al. 2017). There are rising student expectations for how course delivery

occurs—through online platforms, hybrid (online and on-campus) combinations, massive open online courses (MOOCs), micro-credentialing, simulated learning, and augmented reality in simulation learning. Further, linked to technology is an increasing global accessibility to education, expanding mobility of ideas, capital, and people (Fullan & Scott, 2009). Additionally, the digital divide creates "moral and political dilemmas" (Fullan & Scott, 2009, p. 8).

> The growth of higher education in the developing world has been constrained by various factors, notably cost. But today, with spreading connectivity, allied with the massive creation of open educational resources…could create the radical reduction in costs necessary for higher education to serve the four billion people at the bottom of the world's economic pyramid (Fullan & Scott, 2009, p. 8).

Lastly, another salient external environmental factor affecting higher education and with which college and university president must engage is the expanding regulatory environment. As reported by Posillico (2017), "there has been significant growth in the number of regulations placed on colleges and universities in recent years…and this contributes to the complex environment that exists for colleges and universities" (p. 2). Additionally, according to the *American College President Study 2017*, half of the presidents "characterized their state political climate as supportive, and 41% of the presidents believed their state political climate was hostile" (p. 53).

In addition to the external environment, there are many internal factors within colleges and universities that can challenge a president's leadership effectiveness and make it slow and difficult to achieve change with the organization (Bergquist & Pawlak,

2008; Birnbuam, 1989; Burke, 2011; Fullan & Scott, 2009; Keohane, 1998; Lowman, 2010; Sandeen, 2011). First, almost all public and private colleges and universities have dual or "shared" governance structures—a board of regents/trustees and a faculty senate. Second, there is faculty tenure, which is employment for life for a major constituency within the organization, along with collective bargaining for other key constituencies (e.g. adjunct faculty, staff, teaching assistants, residents). Third, many colleges and universities have a range of quasi-autonomous subunits (e.g. centers, institutes, schools, athletics, hospitals). Fourth, colleges and universities have long been considered exemplars of loosely coupled systems (Burke, 2011; Orton & Weick, 1990; Weick, 1976). These organizations are decentralized with a relatively flat hierarchy and "a major constituency, the faculty, largely ignoring the 'chain of command'" (Burke, 2011, p. 147). Further, Burke (2011) noted,

> departments rarely cross boundaries much less cooperate with one another. Independence is much more the name of the game than interdependence…. Within the university, departments can be tightly coupled and fight to keep it that way by insisting on the larger system being loosely coupled (p. 148-9).

Fifth, colleges and especially universities are known as prototype organized anarchies (Cohen & March, 1976; Dennis, 2016; Ruscio, 2017)—as "theater-in-the-round—a cultural drama in process" (Chaffee & Tierney, 1988, p. 3). Sixth, there are many organizational cultures. Bergquist and Pawlak (2008) defined six distinct cultures in the academy alone, and these cultures are concurrently integrated, differentiated, and fragmented. These cultures are also combined with

a "complex set of overlapping constituencies" (Hearn, 2006, p. xii) including students, faculty, regents/trustees, alumni, athletic boosters, donors, staff, partners, and parents, among others. These constituencies often have different priorities, interests, and operational involvement. For example, Ruben, De Lisi, and Gigliotti (2017) and Selingo (2013) noted that as college prices continue to rise in the face of declining household wealth, students and families are increasingly asking what they are buying for their tuition dollars. Mamlet and Murphy (2017) reported the "newly empowered generation of students, faculty, parents and alumni expect leaders to be attentive to their needs and desires in establishing institutional priorities…this is particularly true around matters of inclusion and campus climate" (p. 1). Lastly, there are often multiple and competing visions, missions, and goals within the college/university organization, "and while the missions often overlap and reinforce each other, they can also collide" (Ruben et al., 2017, e-book location 190). College and university presidents must effectively engage with all of these internal factors, show that the world of college and university presidents "is wickedly challenging" (Fullan & Scott, 2009, p. 97

Additionally, college and university presidents are entrusted with peoples' lives, especially the lives of the students living on campus. As Johnson-Bowles (2013) described it:

> A college campus is a town, a community of people. Like any town, any place, something bad happens on a college campus every single year. Always….How a president deals with a crisis—how swiftly, how

> professionally, how ethically and transparently, how compassionately—is crucial" (p. 2).

Further, a president's ability to effectively communicate on a routine basis as well as during stressful and crisis situations is critical in today's world of instant social media coverage and constant news cycles (Johnson Bowles, 2013; Wollman, 2015).

Following are four examples of major incidents at colleges and university reported in the national news over the course of just one week in October 2017. First, a fraternity pledge at Louisiana State University died and ten fraternity students were arrested. This was covered by *The New York Times*, *USA Today*, *CNN*, and *The Chronicle of Higher Education*, among other media outlets (Kaufman & Burnside, 2017; Rossman, 2017; Saul, 2017; Zamudio-Suaréz, 2017). Second, an alleged major athletics and academic fraud scandal at University of North Carolina at Chapel Hill was covered by *Fortune*, *Business Insider*, *NPR*, and *The Chronicle of Higher Education*, among other outlets, reported about the (Chappell, 2017; Jacobs & Manfred, 2017; Morris, 2017; Thomason, 2017). Third, at the University of Southern California, the departures of a vice president and the medical school dean amid sexual harassment investigations were covered by *The Los Angeles Times*, *DailyMail.com*, *New York Post,* and other print and television outlets (Farberov, 2017; Parvini, Ryan, & Pringle, 2017; Varma, 2017). Finally, the on-campus fatal shooting of a Texas Tech police officer by a student was covered by *CNN*, *FOX News*, and *The Chronicle of Higher Education* (Grinberg & Ellis, 2017; Harris, 2017; Watkins, 2017). These four situations, from just one week, are a mere sampling of the kinds of major incidents occurring at colleges and universities and with which presidents must effectively engage, respond, and communicate.

To summarize, there are major external and internal environmental factors that are affecting higher education today. These are factors with which college and university presidents must be able to effectively engage. The leadership literature has shown conceptual and empirically that there are important connections between emotional intelligence, approaches to leadership, and effective leadership.

Emotional intelligence and college and university presidential leadership

In the literature, there is a paucity of information about emotional intelligence, leadership, and college and university presidents. In the scholarly literature, Cherniss (1998) asserted that to be successful, educational leaders "must be self-confident, be able to modulate emotions, be unusually persuasive, cultivate positive relationships, and continually develop their emotional intelligence" (p. 26). Johnson, Aiken, and Steggerda (2005) posited that "educational leaders especially and leaders generally must learn to be responsible for their emotional selves" (p. 249).

Also, two past presidents offered personal insights and perspectives about the importance of emotional intelligence to college and university presidential leadership. Shaw (1999), in his book titled *The Successful President: "BuzzWords" on Leadership*, posited that an effective university president must possess emotional competence and be self-aware, able to control impulses, able to delay gratification, and be empathetic. Further, Shaw (1999) suggested that leaders with strong emotional intelligence are able to deal constructively with reality and to adapt to change. Additionally, Shaw discussed the importance of an effective university president being able to cultivate and sustain close relationships, and to be able to accept constructive criticism for self-evaluation.

Borenstein (2015) emphasized that a college president needs emotional intelligence in order to handle the many dimensions and pressures of leadership in the higher education environment. Specifically, Borenstein (2015) stated:

> In the higher education context, emotional intelligence involves being a receptive and empathetic listener, controlling angry feelings, radiating optimism, modeling calm behavior in difficult situations, defusing volatile encounters, being inclusive, building relationships, bringing disparate groups together, and generating social capital (a culture of trust and reciprocity)" (p. 3).

Further, Borenstein (2015) emphasized that presidential search committees should specifically consider the emotional intelligence of candidates as part of the criteria set for the incoming president.

In the empirical literature stream, six research studies exploring the emotional intelligence of executive leaders at college and universities have been conducted. Most relevant is the Niculescu-Mihai (2007) study titled, *Emotional Intelligence and Academic Leadership: An Exploratory Study of College and University Presidents*. While 61 presidents were invited to participate in the study, the final sample was seven (7) college and university presidents in Central and Eastern Pennsylvania. The researcher reported that she "was extremely surprised to meet a high degree of resistance to participate in the research, even presidents the researcher knew for quite some time refused to participate" (Niculescu-Mihai, 2007, p. 99). The study was conducted using a mixed methodology to explore the emotional intelligence of the presidents. In the quantitative phase, the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) full form was utilized to measure

the presidents' emotional intelligence. Additionally, one-on-one telephone interviews ranging from 20-45 minutes were conducted with four of the presidents to explore their understanding of the concept of emotional intelligence. The study "revealed that most presidents scored in the average ranges of emotional intelligence, there was no significant relationship between the demographic factors and EIQ scores, and the four presidents understood and believed in the concept of emotional intelligence" (Niculescu-Mihai, 2007, p. i).

Three studies examined emotional intelligence in connection to specific phenomenon: a) stress management, and b) faculty and staff retention, and c) student retention. Gough (2011) conducted a study titled, *Stress Management of North Carolina Community College Presidents: The Influence of Emotional Intelligence*. The study explored the connection between of emotional intelligence and stress management in a sample of 47 North Carolina community college presidents. The study examined the relationship between seven subscales of emotional intelligence and three subscales of occupational stress-coping resources. The Genos Emotional Intelligence Inventory (Genos EI) concise version measurement was used to assess the community college presidents' emotional intelligence. The Genos EI-Concise Version is a 31-item self-report measure which can be completed in 10 minutes or less. The instrument was distributed and collected electronically. The study found that the community college presidents' total emotional intelligence scores "tend to be grouped in the upper end of the test score range" (Gough, 2011, p. 80), and the presidents' scores exceed the Genos EI normative sample by about 7%. Additionally, the study found a significant positive relationship existed between the emotional intelligence of the North Carolina community

college presidents and their occupational stress-coping resources. This finding suggested "the ability of presidents to control their emotions can boost their adaptive coping capability" (Gough, 2011, p. 104).

Snuggs (2006) conducted a study titled, *Leadership that Inspires Dedication: The Relationship between the Emotional Intelligence of Community College Presidents and Faculty and Staff Retention*. The study explored the relationship between the emotional intelligence of 39 community college presidents in North Carolina and faculty and staff retention. The Bar-On Emotional Quotient Inventory (Bar-On EQ-i) was the instrument used to measure the presidents' emotional intelligence. The study found 31% of the presidents exhibited "enhanced skills" (Snuggs, 2006, p. 117), 67% exhibited effective or average skills, and one respondent was in the area for improvement category. The emotional intelligence scores were compared to "the unit record retention data of each institution for faculty and staff" (Snuggs, 2006, p. i). The study found no statistically significant correlations between the emotional intelligence of the community college presidents and faculty retention. For staff retention, the presidents' total emotional intelligence score and adaptability composite score were statistically significant to staff retention. Specific to the retention of senior administrators, the emotional intelligence scores of the community college presidents "were found to be inversely related…the data suggest that presidents with higher emotional intelligence and adaptability scores have senior administrators who are more likely to leave" (Snuggs, 2006, p ii).

Additionally, Sala (unpublished, no date) conducted a study for the Hay Group, a consulting company with whom Goleman and Boyatzis work. The study involved 92 college principals (i.e. chief executive and academic officers) in the United Kingdom.

Some brief information about the study was reported in Boyatzis and Sala (2004). The study examined student retention rates and student academic performance. The study found student retention rates were significantly associated with the principals' self-awareness and social awareness competence cluster ratings.

A methods study by Freed (2016) explored how three community college leadership teams in Washington or Oregon utilized emotional intelligence in their administrative duties. The teams included presidents, vice presidents, deans, and directors. The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) full-form was used to measure the emotional intelligence of the team members, and semi-structured interviews were utilized to learn how the leaders utilized emotional intelligence to accomplish their work. The study found that the "leaders often lacked knowledge of how they use emotional intelligence" (Freed, 2016, p. iv). Also, the "leaders with the highest emotional intelligence focused more on the teams and culture of the institution" (Freed, 2016, p. iv). Specific to the three presidents, the presidents "had the lowest emotional intelligence mean scores of the team members, falling into the Low Average Score range" (Freed, 2016, p. 62).

Finally, Hohlbein (2015) conducted a study titled, *The Power of Play in Developing Emotional Intelligence Impacting Leadership Success: A Study of the Leadership Team in a Midwest Private Liberal Arts University*. The mixed methods study explored the influence of play in developing emotional intelligence, and was conducted with eight members of the University Cabinet of a private liberal arts university in the Midwest. The study did not state if the university president participated in the study. The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) was

used to measure emotional intelligence, the Team Emotional and Social Intelligence (TESI) instrument was used to gather information about the group, and personal play history narratives (gathered with five researcher-designed questions) were the instruments used. The participants "expressed a high level of awareness of the value of play over a lifetime to maintain good physical and psychological health" (p. xi). The intent of the study was to explore "what impact play histories had on developing emotional intelligence in higher education leaders and their resulting ability to develop and lead emotionally intelligent teams" (Holbein, 2015, p. 7). The study found the team had three areas in the seven scales of emotional intelligence that scored in the 'low' or 'learn to strengthen' category. These areas were communication, stress tolerance, and conflict resolution. The other four scored areas fell within the midrange/effective scoring category, and these areas were team identity, motivation, emotional awareness, and positive mood. The study asserted that "leaders who can model work and life balance through a culture of play, can directly impact the emotional intelligence skill development of others through the adoption of the skills and styles of the leaders whom they trust and admire" (Hohlbein, 2015, p. 133).

To summarize, past college presidents have identified emotional intelligence as a competency core to effective leadership by college and university presidents. Additionally, there have been six studies about the emotional intelligence of community college and comprehensive college presidents. The studies showed mixed findings about the emotional intelligence scores of the presidents. Three studies (Freed, 2016; Niculescu-Mihai, 2007; Snuggs, 2006) found most of the presidents to have average to low emotional intelligence scores One study (Gough, 2011) found most of the presidents

to have high emotional intelligence scores. The other two studies (Hohlbein, 2015; Sala, undated) did not report emotional intelligence scores. Further, two studies (Freedman, 2016; Niculescu-Mihai, 2007) showed mixed findings about the presidents' awareness and utilization of emotional intelligence in their work. Finally, the studies illustrated the challenges in obtaining emotional intelligence information from this important population of leaders.

Summary

In this section, scholarly literature about the higher education sector was reviewed and synthesized. Presented first was an introduction to the higher education sector. Second, the categories of higher education institutions were identified and described. Third, the literate about leadership in higher education was put forward. Finally, the theoretical and empirical literature addressing emotional intelligence and college and university president leadership was discussed.

Chapter Summary

To lay the theoretical, conceptual, and empirical platform for the study, this chapter presented a review of the literature. First, emotional intelligence was addressed. This section began with information about emotional intelligence as a relatively new construct, followed by a presentation of the theoretical foundations of emotional intelligence, which included the emotional domain, intelligence domain, and personality domain. Next, the four salient theories and their respective models and measurements were described.

Second, emotional intelligence and leadership were addressed. This began with an overview of the leadership construct. Next, the leadership approaches which have

been empirically linked to emotional intelligence, and their respective connections to emotional intelligence, were described. Also, leadership effectiveness was discussed and its connection to emotional intelligence was described.

Third, the higher education context was described. This began with a description of the categories of higher education institutions. Next, leadership and the higher education environment was reviewed. This included descriptions of the external environment and the key internal factors with which college and university presidents must effectively engage. Finally, the chapter concluded with the connections in the literature about emotional intelligence and the leadership by college and university presidents. The next chapter presents the methodology for the study.

Chapter 3: Methodology

The purpose of this foundational descriptive quantitative study was to identify and describe the trait emotional intelligence of college and university presidents. The evolving empirical literature about emotional intelligence has shown that emotional intelligence is important to the leadership process and is a driver of leadership excellence (Amram, 2009; Bar-On, 1997; Cherniss & Adler, 2000; Cherniss & Goleman, 2001; Cooper & Sawaf, 1997; Golden, 2015; Goleman, 1995/2006; Goleman, 1998a, 1998b; Goleman, Boyatzis, & McKee, 2002; Heifetz & Linsky, 2002; Higgs, 2002; Salovey & Mayer, 1990; May-Vollmar, 2017; Rosete & Ciarrochi, 2005). Further, meager research exists on the emotional intelligence of college and university presidents. As Zeidner, Matthews, & Roberts (2009) asserted, "it is important to understand how emotional intelligence might be distributed across different occupational groups…and it is unlikely that emotional intelligence is distributed randomly" (p. 20).

This descriptive quantitative study utilized a survey research design. The study population comprised the 1,562 college and university presidents at Carnegie-classified baccalaureate, master's, and doctoral/research institutions listed in the Higher Education Directory® (HigherEd Direct) directory. A census strategy was used and participants were recruited via email. The data collection instrument was the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) (Petrides, 2009b). The TEIQue-SF and a demographic questionnaire were administered online via SurveyMonkey™. The TEIQue- SF instrument was selected for several reasons. It is a standard and well-known instrument that is considered to have good reliability and to be psychometrically valid. The TEIQue-SF is available free of charge for research purposes, and permission to use

the instrument is not required for academic research studies. Also, it is a short 30-item self-report instrument that can be completed in about 5 minutes online, which makes it a good fit for the study population.

Analysis of the collected data set followed the protocol set forth by Creswell (2014). The survey responses were examined day by day to see if the responses began to change, which would indicate a potential for response bias. Second, information regarding the number of respondents who did and did not complete the TEIQue-SF instrument was reported. Third, Cronbach's alpha was assessed, followed by descriptive statistical analysis of the data. Additionally, a chi-square goodness-of-fit assessment was conducted.

The descriptive statistical analysis comprised means and standard deviations for the college and university presidents' trait emotional intelligence scores, and frequencies and percentages for demographic questions. A series of two-tailed one-sample *t*-test were conducted to assess differences (Hinton, McMurray, & Brownlow, 2014) in the trait emotional intelligence scores between the study sample of presidents and the general population (represented by the normative group). Also, a chi-squared goodness of fit test (Hinton et al.; Pearson, 1900) was conducted. The assumption of independence was assessed via the sample selection (Creswell, 2014; Gmelin, 2005), and the assumption of normality was assessed via the Central Limit Theorem (Diez, D.M., Barr, C.D., & Çetinkaya-Rundel, M., 2017; Gmelin, 2005). Additionally, a Cronbach's alpha test was conducted to assess the reliability (Cronbach, 1951; Cronbach & Shavelson, 2004) of the TEIQue-SF.

Overview

To provide a detailed explanation of the research methods for the study, this chapter first identifies the research questions investigated. Second, the research design is presented, and includes the conceptual underpinnings pertinent to the research design, the reasons why the research design was the best fit for addressing the research questions, the strengths and potential limitations of online and self-administered surveys, and the strategies implemented to minimize the potential online and self-administered survey limitations. Third, the study population and sampling are discussed, including the sample frame, sample procedure, the sample size necessary for statistical validity of the study, and the strategies for maximizing participation. Fourth, the source of the general population comparison group is identified and the group's emotional intelligence trait scores via the TEIQue-SF instrument are presented. Fifth, the data collection plan for the college and university presidents' emotional intelligence trait scores is described, including information about the TEIQue-SF data collection instrument, reliability and validity of the instrument, collection of demographic information, and the data collection plan. Sixth, the survey response scoring and the data analysis procedures are described. Finally, the chapter concludes with information about the ethics precautions and minimizing the risks to participants in the study.

Research Questions

The central research question of the study was: What are the emotional intelligence traits of college and university presidents? Operationally, this inquiry addressed the following fundamental questions:

1. What are the emotional intelligence trait scores of college and university presidents, as measured by the TEIQue-SF? This includes the scores for the well-being, self-control, emotionality, and sociability trait emotional intelligence factors and global trait emotional intelligence.
2. How do the scores for the well-being, self-control, emotionality, and sociability trait emotional intelligence factors and global trait emotional intelligence of college and university presidents differ from the scores of the general population?

To explore this research question, there were five hypotheses:

HA_1: The well-being factor mean score of college and university presidents is higher than the mean score of the general population.

HA_2: The self-control factor mean score of college and university presidents is higher than the mean score of the general population.

HA_3: The emotionality factor mean score of college and university presidents is higher than the mean score of the general population.

HA_4: The sociability factor mean score of college and university presidents is higher than the mean score of the general population.

HA_5: The global trait emotional intelligence mean score of college and university presidents is higher than the mean score of the general population.

Through the series of hypotheses, the study proposed the college and university presidents would have high scores on the measures of the well-being, self-control, emotionality, and sociability emotional intelligence trait factors and global trait emotional intelligence. Further, the study proposed the college and university presidents would

score higher than the general population on all four factors and global trait emotional intelligence.

Research Design

The research design is the plan for the collection, analysis, and interpretation of data. For this foundational study, a descriptive quantitative survey research design was administered. This section addresses the justification for the selected research.

Goal and Desired Characteristics

The goal of this study was to identify and describe the emotional intelligence traits of college and university presidents. This entailed investigating the trait emotional intelligence scores of a large group, representing a well-defined and geographically dispersed population. For the phenomenon being studied, the desired information was specifically about the current situation and emotional intelligence traits of college and university presidents at Carnegie-classified baccalaureate, master's, and doctoral institutions. Efficient and economical data collection was also desired. To achieve this, a descriptive quantitative survey research design was administered online.

Conceptual Underpinnings

The research design was grounded in the functionalist paradigm which has an objectivist lens as put forward by Burrell & Morgan (1979/2009). Through the objectivist lens, the observer is considered a valid vantage point for understanding human activities and knowledge is considered a cumulative process, adding to the existing stock of knowledge (Burrell & Morgan, 1979/2009). In accordance with the objectivist perspective, a nomothetic research methodology was utilized. The nomothetic research method emphasizes systemic protocol and technique, quantitative approaches, use of

standardized research instruments such as surveys, and generalizable knowledge as a research goal (Burrell & Morgan, 1979/2009).

Research Design Selection

The research utilized a descriptive quantitative study with a survey research design. Use of a descriptive survey design aligned with the objectivist lens and nomothetic research method that conceptually underpinned the study. A descriptive study is concerned primarily with producing information about the current state of a group and a phenomenon (Fink, 2003; Gall, Gall, & Borg, 2007); descriptive statistics are utilized to organize and summarize data (Holcomb, 1998); and, can yield "much valuable knowledge" (Gall et al., 2007, p. 301). This study of the trait emotional intelligence of college and university presidents enhanced awareness and understanding of this group of leaders and their emotional intelligence. Description of the current state of emotional intelligence traits in college and university presidents, and analysis of the differences in the traits between this population and the general population, provided new knowledge to the emotional intelligence, leadership, loosely coupled systems, and higher education literature streams.

Further, the study had standard procedures for administration of the survey and data collection. Quantitative analysis of the data identified and described the trait emotional intelligence scores of college and university presidents, as well as differences between this population and the general population. These results informed generalizations regarding the population of college and university presidents. Surveys are a major approach to behavioral research and allow for the study findings to be generalized to the greater population (Cozby & Bates, 2015; Creswell, 2014).

Generalizable knowledge is a goal of the nomothetic perspective (Burrell & Morgan, 1979/2009) that conceptually underpinned the study.

The survey research design utilized a self-administered online approach. College and university presidents completed the survey online via SurveyMonkey™. The self-administered online survey approach offered many advantages. Following is an overview of the benefits as well as potential limitations of online and self-administered surveys, and the strategies implemented to minimize the limitations.

Strengths of online surveys. Administering the survey online had numerous benefits. The online design allowed for data to be collected economically and efficiently from a large group and across a wide geographic area (Creswell, 2014; Dillman, Smyth, Christian, 2014; Evans & Mathur, 2005; Fowler, 2014; Ilieva, Baron, & Healey, 2002). Another major advantage of administering the survey online was the potential for a quick response and return (Ilieva et al.; Fowler). Also, the low cost and the ease of administering the survey online streamlined the process of sending thank you and follow-up reminder emails to increase the survey response rate (Evans & Mathur).

An online survey approach fit well with the study population—college and university presidents—as it resonates with those who are well-educated (Fowler, 2014). Plus, this approach could be tailored to the population demographic (Evans & Mathur, 2005). College and university presidents received the online survey via email with a URL link to the survey embedded in the email for their convenience. Participants could easily complete the survey via their computers or mobile devices at a time that was convenient for them (Dillman et al, 2014). Additionally, administering the survey online

provided participants the opportunity to complete the survey at their leisure when they had time for thoughtful answers (Fowler, 2014).

The online survey design offered "strong methodological control" (Evans & Mathur, 2005, p. 208) through enhanced control over and consistent measurement of the data in several ways (Dillman et al., 2014; Evans & Mathur; Fowler, 2014). The online survey approach offered control over the answer order, meaning respondents could be required to "answer questions in the order intended by the study designer, as well as prohibit the respondent from looking ahead to later questions" (Evans & Mathur, p. 200), which may have reduced survey bias. Also, standardized and consistent measurement across all respondents was facilitated through the use of an online survey (Evans & Mathur; Fowler). Furthermore, there was minimal administrative responsibility for data entry as there is with survey responses submitted on paper, via mail, or on the phone (Evans & Mathur, 2005). Finally, SurveyMonkey™ online survey platforms allowed survey questions and responses to be uploaded, formatted, and stored securely online, and also securely integrated with SPPS (Surveymonkey.com, 2017). As the researcher did not manually enter the survey response data, the time needed for data processing was reduced and the potential for related errors was essentially eliminated (Surveymonkey.com, 2017).

Potential limitations of online surveys. Potential limitations exist when using online surveys. First, there may have been a challenge related to the participant receiving and opening the survey request due to receipt of the survey instrument through email. The recipient's email system may have filtered the recruitment email as spam or junk mail, meaning the survey recipient may not have had the opportunity to receive and open

the online survey (Dillman, Smyth, & Christian, 2014; Evans & Mathur, 2005). Second, enlisting participation may have been challenged since people can be skeptical of email requests from unknown sources and may not have accessed the online survey (Dillman et al.; Evans & Mathur; Fowler, 2014). Respondents may have been concerned about the confidentiality of their responses and/or the potential for the email to contain a virus (Evans & Mathur). Finally, studies show that online surveys occasionally have low response rates (Evans & Mathur; McPeake et al., 2014).

Strategies for minimizing online survey limitations. There were numerous strategies implemented to minimize the impact of the potential online survey limitations. Limitations of online surveys may have been mitigated and the response rate improved by: (a) the personalizing of each email, (b) stating the average time it would take to complete the survey in both the email subject line and narrative, (c) providing clear and succinct instructions, (d) making survey access convenient by including the survey URL link in the body of the email, and (e) sending a reminder email (Dillman et al, 2014; Evans & Mathur, 2005; McPeake et al., 2014). All of these strategies were implemented during the study.

To keep the body of the email succinct and the consent section of the survey streamlined, a detailed consent information document with this important information was attached to the email. Additionally, to incentivize participation, the presidents were given an opportunity to opt-in to receive a confidential report with their individual emotional intelligence trait scores, the aggregate emotional intelligence trait scores of their peer group (the study sample of college and university presidents), and the comparative general population (normative group) of the study. Implementing all of

these strategies minimized the limitations of the online survey approach and helped to increase the survey participation rate.

Strengths of self-administered surveys. Fowler (2014) identified two key advantages of self-administered surveys in comparison to interviewer-administered data collection. Self-administered surveys provide an ease of presenting questions, especially those that are long or similar. Also, it is likely the data will be more valid since the respondents may answer more frankly because they do not have to share the answers with an interviewer.

Potential limitations of self-administered surveys. Some potential disadvantages of self-administered surveys were also identified by Fowler (2014). Participants need to possess adequate reading and writing skills in order collect valid data from them. Also, who actually answers the questions can be difficult to control. Further, participants may become frustrated and exit the survey if the instructions are not clear (Dillman et al., 2014; Evans & Mathur, 2005).

Strategies for minimizing self-administered survey limitations. Characteristics of the study population and the structure of the survey and study minimized some of the potential limitations of the self-administered survey. First, the population for the study was highly educated with advanced reading and writing skills. Thus, it can be assumed that participants were capable of comprehending and responding to the survey items. Second, the survey instrument did not include open-ended questions. Third, the survey emails were personalized, sent directly to the published email addresses for the college and university presidents, and clear and concise instructions were provided (Dillman et al., 2014; Evans & Mathur, 2005; McPeake et al., 2014).

Collectively, these strategies and the characteristics of the study population helped minimize the limitations of the self-administered survey.

Population and Sample

This section addresses the population and sample of this study. First, the population of interest is identified. Second, the sample frame is presented. Third, the sample procedure is described. Finally, the minimum sample size necessary for statistical validity of the study and an aspirational response rate are presented.

Population

Presidents at colleges and universities in the United States in 2017 comprised the population of interest for this study. The population was identified utilizing The Carnegie Classification of Institutions of Higher Education™ database (http://carnegieclassifications.iu.edu/). Since 1973, the Carnegie Classification™ framework "has been widely used in the study of higher education, both as a way to represent and control for institutional differences, and also in the design of research studies" (http://carnegieclassifications.iu.edu/).

For the study, the population comprised the presidents of baccalaureate, master's, and doctoral Carnegie-classified institutions listed in the database. An updated database is published every five years. The Carnegie 2015 Classification, released in February 2016, was the most recent version. In the 2015 baccalaureate, master's, and doctoral/research Carnegie-classification categories, there are 1,562 presidents. This population encompassed colleges and universities that are also Carnegie-classified as public not-for-profit, private not-for-profit, and private for profit (http://carnegieclassifications.iu.edu/). The population included presidents at both brick-

and-mortar and online institutions. This broad base of college and university presidents allowed for greater depth and potential inferences from the data collected.

Sample Frame

The sample frame within the population of interest for this study was the 1,562 presidents at Carnegie-classified baccalaureate, master's, and doctoral institutions who were listed on October 21, 2017 in the Higher Education Directory® (HigherEd Direct) directory, produced by Higher Education Publications™. The HigherEd Direct directory is an opt in directory. The number of presidents listed in the HigherEd Direct directory was lower than the number listed in the Carnegie-classification listing because not all of the Carnegie-classified institutions opted to be in the HigherEd Direct directory.

For more than 30 years the HigherEd Direct directory has been an "authoritative, timely, and accurate" (http://www.hepinc.com/about/) resource of contact information for "academic and administrative personnel at accredited, degree-granting colleges and universities" (http://www.hepinc.com/about/). This directory was available in a digital format. Further, the fee to access the digital directory was nominal.

Fowler (2014) identified three characteristics to be considered when defining the sample frame for a study. The characteristics are: (a) comprehensiveness, (b) probability of selection, and (c) efficiency of accessing the population. These characteristics were considered when defining the sample frame for this study.

Using the HigherEd Direct directory provided a frame that was ninety-four percent (94%) of the total population of interest—college and university presidents. There was geographic and demographic diversity within the sample frame. Presidents at brick-and-mortar and online institutions; at baccalaureate, master's, and doctoral

institutions; and at private for profit, private not-for-profit, and public not-for-profit institutions were included. The size and scope of this sample frame portrayed a comprehensive representation of the population.

For the study, a census strategy was used. Everyone in the sample frame was selected and invited to participate in the study. All the presidents in the sample frame had a consistent and equitable opportunity to participate.

Efficiently accessing the population was possible through the HigherEd Direct digital directory, which has a search filter option for the baccalaureate, master's, and doctoral Carnegie-classification categories. The directory included the presidents' names, titles, institution names, and email addresses. Utilizing the HigherEd Direct digital directory enabled efficient identification and access to contact information for the sample frame (Bergquist, 2005).

Sample Procedure

A single stage census was utilized for this study. The combination of a census strategy and single stage procedure offered the best fit for addressing the research questions. Also, this sample procedure was a good fit for the population of interest and the sample frame.

The census strategy approach aligned with the nomothetic perspective (Surbhi, 2016; Parker, 2011) that conceptually underpinned the study. The census strategy was a systematic method through which the survey was distributed to all members of the framed population (Fowler, 2014; Groves, Fowler, Couper, Lepkowski, Singer, & Tourangeau, 2009). Also, using a census strategy offered results that were more reliable and accurate because the probability of errors was reduced (Surbhi; Parker). Further, the

census approach provided everyone in the sample frame with an equal opportunity to participate in the study. Although some members of the sample frame may have chosen not to participate, at least the opportunity to participate was offered to everyone in the sample frame (Parker). Finally, utilizing a census strategy allowed for the collection of better demographic data across the sample, which enhanced the depth of understanding about and the description of the population (Parker). These four facets of the census strategy demonstrated utilization of a systemic protocol and scientific rigor, which are primary foci of the nomothetic perspective (Burrell & Morgan, 1979/2009) that underpinned the study.

A single stage approach is when members of a sample frame are identified at one time and contacted directly (Creswell, 2014; Fowler, 2014). This approach was a strong fit for the study. Members of the sample frame were identified at one time using the HigherEd Direct digital directory, which provided the email addresses for the presidents in the sample frame. The single-stage approach was a systemic technique aligned with the nomothetic perspective (Burrell & Morgan, 1979/2009) underpinning the study.

Minimum Necessary Sample Size and Aspirational Response Rate

An *a priori* (prospective) assessment was conducted to identify the minimum sample size necessary to achieve statistical validity for the study. Four elements were considered in determining the rate: (a) statistical procedures to address the research questions, (b) effect size, (c) level of significance, and (d) level of statistical power (Faul, Erdfelder, Buchner, & Lang, 2007; Hinkle & Oliver, 1983; Land & Zheng, 2010; Olejnik, 1984). G*Power 3 (Version 3.1.9.2) was used to calculate the minimum required sample size for statistical validity. For the two-tailed one sample *t*-test—with a

significance level of .05 ($\alpha = .05$), a power of .80 ($1-\beta$), and an effect size ($d = 0.5$) (Hinton et al., 2014)—the minimum sample size necessary for statistical validity was 34 participants (Faul et al.) (Appendix A). Additionally, based on the empirical literature, there was an aspirational response rate of at least 20% for the study.

Statistical procedures. Descriptive statistics were conducted for the data set. The means and standard deviations of the presidents' TEIQue-SF scores were determined, and frequency distribution and percentages were calculated for the demographic data. A two-tailed one sample *t*-test and a chi-square goodness-of-fit test (Hinton et al., 2014; Pearson, 1900) were conducted to determine if the scores distribution of the presidents group (study sample) differed from the general population group (normative group) distributions.

Effect size. The effect size quantified the size of difference between groups. It was described in terms of the estimated standard deviation (Cohen, 1988; Hinton et al., 2014). The effect size identified "the strength of the conclusions about group differences" (Creswell, 2014, p. 165). This study assumed a moderate effect size of 0.5 ($d = 0.5$), a common effect size in research studies (Cohen; Creswell; Hinton et al.; Land & Zheng, 2010).

Level of significance. The significance level reports "an assessment as to whether the observed scores reflect a pattern other than chance (Creswell, 2014, p. 165), the probability of committing a Type I error. For the study, the significance level assumption was .05 ($\alpha = .05$). This is a common significance level assumption (Creswell; Faul et al., 2007; Hinton et al., 2014).

Leve of statistical power. "A statistical test is considered significant if the results are unlikely by chance to have occurred" (Creswell, 2014, p. 165). Power refers to the level at which the level of "no effect" can be rejected (Creswell). An *a priori* power calculation (Cohen, 1988) was conducted to control statistical power prior to conducting the study (Faul et al., 2007). The level of statistical power assumption for this study was 0.80 (1- β =.80). Statistical power values range from 0 to 1, with .80 considered an acceptable and high power value (Cohen; Creswell; Faul et al.; Hinton et al, 2014).

Sample size. The minimum sample size necessary for statistical validity was 34 participants (Faul et al., 2007) (Appendix B). While this number of responses was expected, a higher aspirational response of rate was set for the study based on the empirical literature for online surveys sent by email to college and university presidents. Bergquist (2005) emailed an online survey to presidents about their perceptions of online education and achieved a 34% response rate (69 respondents). Niculescu-Mihai (2007)—who published the doctoral study in 2011 under the name C.N. Slaff—had an 11.5% response (7 respondents) to that emotional intelligence online survey sent by email to college and university presidents in Pennsylvania. Based on the Bergquist (2005) and Niculescu-Mihai (2007) studies, an aspirational response rate of 20% was set and surpassed for this study. The study sample had 300 participants, substantially more than the 34 participants required for statistical validity.

Strategies for Maximizing Response Rate

Numerous strategies were employed to engage the college and university presidents to maximize the response rate for the study. The selected research

instrument—the TEIQue-SF—is a "robust measure" (Thomas International, 2014) that could be completed in about 5 minutes (Petrides, 2009b). This survey could be completed online via a computer or mobile device making survey completion convenient for participants. College and university presidents balance numerous responsibilities and have tightly scheduled calendars. Thus, a survey that could be completed quickly and easily at the presidents' convenience helped maximize the response rate.

Personalized emails and clear, concise instructions also help maximize the response rate (Dillman et al, 2014; Evans & Mathur, 2005; and McPeake et al., 2014). College and university presidents receive a high volume of email and have a limited amount of uncommitted time. Personalization was important for a good response rate because it showed that participants were important and specifically selected to participate. Communicating clearly and succinctly demonstrated an appreciation for the volume of email presidents receive and the value of their time. As noted by a president participating in the study, "I get lots of requests for surveys and your email and survey was put together so well. It was as you promised (five minutes), your instructions were very clear and the repeated breaks in the survey as well as repeated instructions made the survey very easy to complete" (2017).

Providing individuals with an incentive to participate helps to maximize the response rate (Dillman et al, 2014; Evans & Mathur, 2005; and McPeake et al., 2014). For the study, the incentives were the opportunity to opt-in to receive a confidential report with their individual emotional intelligence trait scores, the aggregated trait emotional intelligence scores for their peer group (the collective of college and university presidents participating in the study—the study sample**),** and the comparative general

population (normative group) of the study. Each president was assigned a confidential unique identifier number in order to implement this.

The presidents received a minimum of two (2) and a maximum of four (4) emails, and they were all personalized. The first email was the invitation to participate. This communique provided clear and succinct instructions and the survey URL link was embedded in the email. The time it would take to complete the survey was included in the subject line and the body of the email. Also, each president's unique identifier number was noted in the body of the email in bold and underlined. To keep the body of the email succinct and the consent section of the survey streamlined, a detailed consent information document with this important information was attached to the email. The attached document reinforced the importance of the consent information and potentially increased participants' confidence in the security and ethical aspects of the study.

Presidents who completed the survey after the first invitation and who self-identified—to receive a confidential report with their individual emotional intelligence trait scores, the group's aggregate emotional intelligence trait scores, and the comparative general population (normative group) of the study—received a second personalized and brief email thanking them for participating and providing them with the timeline for when they would receive the report they requested. This group subsequently received a follow-up email with their confidential report, as they individually requested.

Presidents who did not complete the survey after the first invitation or who did complete the survey but did not self-identify (to receive their individual report) received an email which thanked those presidents who completed the survey and requested participation from the presidents who had not completed the survey. The survey URL

link was embedded in the email, the time it would take to complete the survey was included in the subject line and body of the email, each president's unique identifier number was noted in the body of the email, and the detailed consent information document was attached to the email.

Presidents who then completed the survey and self-identified—to receive a confidential report with their individual emotional intelligence trait scores, the group's aggregated emotional intelligence trait scores, and the comparative general population (normative group) of the study—received an email thanking them for their participation and indicating when they would receive their emotional intelligence scores report. This group subsequently received a follow-up email with their confidential individual report.

Fowler (2014) and Ilieva et al. (2002) indicated that people with an interest in the research topic are more likely to respond. The emails to the presidents briefly addressed why emotional intelligence is an important topic for presidents. Also, the emails explained that this study provided an opportunity for presidents to contribute to the body of knowledge about their profession, leadership, and emotional intelligence, and to also learn about the emotional intelligence traits of their peer group (the collective of college and university presidents participating in the study). Collectively, these strategies helped to incentivize participation in the survey and maximized the response rate.

General Population Comparison Group

The comparison group for the study was the general population, represented by the normative sample utilized in the *Technical Manual for the Trait Emotional Intelligence Questionnaires* (Petrides, 2009b). The general population group (TEIQue-SF normative sample) comprised 1,721 individuals. The mean age of the group was

29.65 years, with a range of 15.7 years to 77 years. The group had 912 females, 764 males, and 61 individuals who did not report their gender. In terms of highest level of education completed, 14% of the group reported having junior high certificates, 30.8% had high school diplomas, 29.5% had undergraduate degrees, 18.9% had postgraduate degrees, and 6.8% reported "other" (Petrides, 2009b).

Descriptive statistics available for the general population (TEIQue-SF normative group) are the mean, standard deviation, and Cronbach's alpha for the well-being, self-control, emotionality, and sociability factors and global trait emotional intelligence scores. The TEIQue-SF score scale ranges from 1 (low) to 7 (high), "with a theoretical average of 3.5" (Petrides, 2009b, p. 17). Descriptive statistics for the general population (normative group) are presented in Table 3.1. The scores for the normative group, on average, are above the 3.5 theoretical mean. For the normative group, the well-being factor has the highest mean score at 5.43, while the self-control factor has the lowest at 4.62. The well-being factor also has the highest standard at 1.01, while the lowest is 0.88 for the sociability factor. The Cronbach's alpha coefficients indicate moderate to high internal reliability (Cortina, 1993; Hinton et al., 2014; Petrides, 2009b).

Table 3.1. **General Population (Normative) Descriptive Statistics for the TEIQue-SF**

Trait	Mean *(M)*	Standard Deviation *(SD)*	Cronbach's alpha (α)
Well-Being Factor	5.43	1.01	0.80
Self-Control Factor	4.62	0.94	0.65
Emotionality Factor	5.25	0.90	0.73
Sociability Factor	4.97	0.88	0.69
Global Trait EI	5.11	0.89	0.88

Note. Adapted from Table 24 – Descriptive statistics for the TEIQue-SF, *Technical Manual for the Trait Emotional Questionnaire (TEIQue)*, (Petrides, 2009b, p. 76).

The normative group mean score for global trait emotional intelligence is 5.11 (Table 3.1). For global trait emotional intelligence, the normative 10th percentile score is 4.1333 and the normative 90th percentile score is 5.9667 (Table 3.2). Normative percentile scores for the other four factors of the TEIQue-SF were not published.

Table 3.2. **General Population (Normative) Global Trait EI Scores for TEIQue-SF**

Percentile	TEIQue-SF Score
10	4.1333
20	4.5000
30	4.7667
40	5.0333
50	5.2000
60	5.3667
70	5.5333
80	5.7333
90	5.9667

Note. Adapted from Table 26 – Descriptive statistics for the TEIQue-SF, *Technical Manual for the Trait Emotional Questionnaire (TEIQue),* (Petrides, 2009b, p. 78).

Data Collection

This section begins with background information about the data collection instrument, the Trait Emotional Intelligence Questionnaire Short Form (TEIQue-SF). Second, the reliability and validity of the TEIQue-SF is presented. Third, the collection of demographic information is addressed. Then, the data collection plan is presented, including timing of the data collection, data handling, and data storage.

Instrumentation

For this foundational descriptive quantitative study to identify and describe the emotional intelligence traits of college and university presidents, the Trait Emotional Intelligence Questionnaire Short Form (TEIQue-SF) was selected. The TEIQue-SF was developed from the full-form Trait Emotional Intelligence Questionnaire (TEIQue) designed by Petrides and Furnham (2001, 2003) as a means to more rapidly assess trait

emotional intelligence (Cooper & Petrides, 2010). The various TEIQue instruments were created to psychometrically assess trait emotional intelligence (Petrides, 2009b).

The TEIQue full form is a self-report inventory instrument with 153 items that takes about 25 minutes to complete and measures four (4) factors, fifteen (15) distinct facets, and the global trait emotional intelligence (Petrides, 2009b). The "sampling domain of the TEIQue was derived through a content analysis of early emotional intelligence models and cognate constructs" (Petrides, p. 13). The TEIQue includes "core elements common to more than a single model, but exclude[s] peripheral elements appearing in only one specific conceptualization" (Petrides, p. 13). Further, the TEIQue has been translated into many languages and used with a variety of career, cultural, and interest groups with consistent and reliable results (Cooper & Petrides, 2010; Freudenthaler, Neubauer, Gabler, & Scherl, 2008; Martskvishvili, Arutinow, & Mestvirishvili, 2013; Mikolajczak, Luminet, Leroy, & Roy, 2007).

The TEIQue short form (TEIQue-SF) is a 30-item self-report instrument that takes about 5 minutes to complete (Petrides, 2009b; Thomas International, 2017). The TEIQue-SF can be completed online or on paper. For research purposes, the TEIQue-SF is available free of charge (London Psychometric Laboratory, 2017-2018) and permission to use the instrument is not required. As on the TEIQue full form, the TEIQue-SF items are measured on a 7-point Likert scale ranging from 1 (*disagree completely)* to 2 (*agree completely)* (Petrides).

The TEIQue-SF measures the four trait emotional intelligence factors of well-being, self-control, emotionality, and sociability and global (overarching) trait emotional intelligence (Petrides, 2009b). The well-being factor is assessed through the facets of

optimism, happiness, and self-esteem (Petrides). The self-control factor includes the facets of emotional regulation, impulsiveness, and stress management (Petrides). The emotionality factor encompasses an individual's communication of emotions and feelings to others, including the facets of empathy, emotional perception, emotional expression, and relationships (Petrides). The sociability factor addresses social relationships and influence, and includes the facets of emotional management, assertiveness, and social awareness (Petrides). The Trait Emotional Intelligence model includes two auxiliary facets: self-motivation and adaptability (Petrides) which are not measured on the TEIQue-SF.

The TEIQue-SF is a standard and well-known instrument. It has been translated into 26 languages (London Psychometric Laboratory, 2018). The TEIQue-SF is utilized around the world to measure trait emotional intelligence across an extensive array of groups and domains. Specific to leadership, examples include the professional use of the TEIQue-SF by American companies and organizations (Thomas International, 2017) and scholarly use of the TEIQue for empirical studies—such as studies of trait emotional intelligence and leadership in European multinational companies (Siegling, Nielson, & Petrides, 2014; Walter & Bruch, 2007), in grammar and public school leaders (Adams, 2013; Benson, Fearon, McLaughlin, & Garratt, 2014; McCannon, 2015), in nonprofit leaders (Miranda, 2016), in women executives (Morse, 2014); Newton, 2016), in engineers (Hertwig, 2016), among church leaders (Carrington, 2015), among law enforcement executives (Campbell, 2011; Ferguson, 2014); and, about trait emotional intelligence and managerial effectiveness in health care (Ashraf & Asif Khan, 2012).

Additionally, while the other three leading emotional intelligence measurements—MSCEIT, Bar-On EQ-I, and ECI—have been commercialized, the TEIQue and all of its forms have not. Thus, TEIQue-SF instrument is available free of charge for research purposes, and permission to use the instrument for academic research studies is not required. Also, the TEIQue, in all of its forms, is an integral part of the academic research program on trait emotional intelligence at the London Psychometric Laboratory at the University College London (www.psychometriclab.com).

Reliability and validity. The TEIQue-SF instrument is considered to have good reliability and to be psychometrically valid. It is based on the long-form Trait Emotional Intelligence Questionnaire (TEIQue). Thus, this section addresses the reliability and validity of both the TEIQue and TEIQue-SF.

The TEIQue is "among the most extensively validated psychological assessments available today" (London Psychometric Laboratory, October 21, 2017). The TEIQue measure has been well-validated, showing "strong evidence of criterion, concurrent, discriminant, incremental, predictive, and, ultimately, construct validity" (Petrides, p. 26). It "is the most extensively validated EI measure in the scientific literature" (Petrides, 2016, slide 7).

Validity assessments of the TEIQue have shown consistent and reliable results (e.g. Aluja, Blanch, & Petrides, 2016; Andrei, Mancini, Trombini, Baldaro, & Russo, 2014; Andrei, Siegling, Aloe, Baldaro, & Petrides, 2016; Petrides, González & Furnham, 2007). For example, a TEIQue incremental validity assessment conducted by Andrei et al. (2016) involved a systematic review and meta-analysis of 24 empirical peer-reviewed articles reporting more than 100 statistical analyses, and the findings supported the

incremental validity of the TEIQue. Also, both primary and meta-analytic studies have consistently shown that, compared to other self-report measures of emotional intelligence, the TEIQue "has superior psychometric properties and greater validity, including incremental validity (DiFabio & Saklofske, 2014; Freudenthaler et al., 2008; Gardner & Qualter, 2010; Martins et al., 2010)" (Andrei et al., 2016, p. 263).

The TEIQue-SF has undergone extensive reliability and validity testing. Cooper and Petrides (2010) conducted two psychometric assessments. Together the studies used nearly 2,000 participants and conducted more rigorous analyses than is often used for reliability and validity assessments of other emotional intelligence measures (Cooper & Petrides). Using item response theory (IRT) to examine the psychometric properties of the instrument, Cooper and Petrides showed the TEIQue-SF has good psychometric properties (Appendix B). At the global trait emotional intelligence level, the instrument had very good precision and most of the instrument items had high information value and good discrimination and threshold parameters (Cooper & Petrides).

Research to assess the incremental validity of the TEIQue-SF was conducted by Siegling, Vesely, Petrides, and Saklofske (2015). The study involved two large samples, with 645 individuals in the first sample and 444 in the second. The bivariate correlations between the variables of each sample were calculated and hierarchical regression analysis was conducted (Siegling et al.). The study found the TEIQue-SF and TEIQue criterion variance to be at comparable levels and showed the construct validity of the TEIQue-SF (Siegling et al.).

Further psychometric tests of the TEIQue-SF, including those of the instrument translated into other languages, have been conducted and have showed consistent and

reliable results. Some examples of these tests are the Laborde, Allen, and Guillén (2016) assessment of the construct and concurrent validity of the short- and long-form versions of the questionnaire; O'Connor, Nguyen, and Anglim (2017) study of the validity of the questionnaire; Shahzad, Riaz, & Begum (2014) psychometric properties assessment of the Urdu translation of the TEIQue-SF, the Stamatopoulou, Galanais, & Prezerakos (2016) assessment of the psychometric properties of the Greek translation of the TEIQue-SF; and, the Wytykowska, Szczygiel, & Jasielska (2016) study of the psychometric properties of the Polish version of the TEIQue-SF.

Collectively, the empirical literature has shown consistent reliability and validity for the TEIQue-SF. The extensive number of studies utilizing the TEIQue-SF have demonstrated the trait EI assessment instrument short version is useful. Moreover, Siegling et al. (2015) reported that the TEIQue-SF is often preferred to the long form when participant self-reporting and practical and/or time constraints are involved.

Thus, the TEIQue-SF instrument was a strong fit for this study for the following reasons. First, it is a standard and well-known instrument. Second, the TEIQue-SF is considered to have good reliability and to be psychometrically valid. The instrument was created and tested by Petrides, a professor of psychometrics, and has been extensively tested by many others as well. Third, the instrument was available free of charge for research purposes, and permission to use the instrument for academic research studies was not required. Fourth, the TEIQue-SF was a good fit for the study population (college and university presidents). The questionnaire is a short 30-item instrument that can be completed online in about 5 minutes. Also, it is a self-report instrument. Finally, the instrument operationalizes the Trait Emotional Intelligence theory and model which are

core components of the theoretical framework of the study. Next, the process utilized to collect demographic information about the study participants is presented.

Collection of Demographic Information

In addition to trait emotional intelligence scores collected via the TEIQue-SF, descriptive demographic data were collected for the sample of college and university presidents and about the institutions they serve. The institutional demographic data collected for this study included the public, private for-profit, and private nonprofit designation; the primary Carnegie-classification; and, the total 2017 fall enrollment. The demographic data collected about the college and university presidents included age, gender, number of years as president at their current institution, total years they have been a president, and the number of institutions where they have served as president. The descriptive demographic data helped to describe the study sample in detail and enhance the validity of the study. Also, the demographic data were archived in case future research on this population is desired.

Data Collection Plan

A cross-sectional approach for data collection was utilized for this study. Data were collected at a set point in time rather than over a longitudinal period. This facilitated the assessment of current emotional intelligence traits and demographics of college and university presidents in a short timeframe (Creswell, 2012). The cross-sectional approach is the prevalent design in education-related survey studies (Creswell).

Access to population contact information. Contact information for the study population—college and university presidents at Carnegie-classified baccalaureate, masters, and doctoral/research institutions—was available through the Higher Education

Publications™ HigherEd Direct directory. The directory was available in a digital format and provided the presidents' names, titles, institution names, and email addresses. Access to the directory was available for a nominal fee and further permission to access the contact information was not required.

Online survey questionnaire. The TEIQue-SF instrument instructions and items, along with the demographic instructions and items, were consolidated into a single survey questionnaire administered through SurveyMonkey™. This was acceptable to do with the TEIQue-SF, as indicated on the London Psychometric Laboratory website (http://www.psychometriclab.com/). The SurveyMonkey™ questionnaire had three components: (a) the opportunity to opt in to receive a confidential report with the participant's individual scores, the aggregated group scores, and the comparative general population (normative group) scores; (b) the 30 TEIQue-SF items; and, (c) the demographic items. Each component included clear and concise instructions. The survey was straight forward and it was anticipated survey respondents would need about 5 minutes to complete the SurveyMonkey™ questionnaire. The three-component survey questionnaire is provided in Appendix C. The original TEIQue-SF document is provided in Appendix D.

Timing. A rolling schedule was utilized for the survey distribution to presidents. The survey was distributed twice. Following the second email distribution, the survey remained open for responses for one week. The personalized thank you emails were sent to the presidents within 24 hours of a president self-identifying that s/he had completed the survey, which was done by entering an assigned unique identifier number into the

survey. The individual reports were sent to the presidents after completion of the research study.

Data Handling and Storage

SurveyMonkey™ offered secure storage of data and easy exportation of data to Excel and to SPSS using their secured site (Surveymonkey.com, 2017). The survey results were stored on the SurveyMonkey™ secure server for three months following completion of the data collection. In accordance with the guidelines of The George Washington University Institutional Review Board (IRB), all research materials were saved in at least three places and will be stored for at least five years. Electronic files were stored on three external passport drives.

Requests received from presidents for their individual emotional intelligence trait scores report were logged into an Excel file. Upon completion of the study, these reports were prepared and distributed via email to the presidents who self-identified and opted-in to receive a report. The Excel file containing the unique identifier numbers and the report requests was encrypted and stored with the rest of the research materials as previously described.

All paper documents were stored in a locked filing cabinet for three months following the completion of the data collection. At the end of this period, the paper documents were scanned and saved along with the other electronic documents in three places, or they were shredded and discarded if they were not useful to retain.

Data Analysis

The collected data set was analyzed using Creswell's (2014) protocol. The survey responses were examined week by week to see if the responses began to change, which

would indicate a potential existed for response bias. Second, information about the number of respondents and non-respondents was reported. Next, a descriptive statistical analysis of the data were conducted.

To score the TEIQue-SF survey responses, at the end of the data collection the data set was electronically uploaded and scored according to the TEIQue-SF scoring protocol. The TEIQue-SF is based on a "7-point response scale" (Petrides, 2009b), ranging from "Completely Disagree" number 1) to "Completely Agree (number 7). All the TEIQue responses must range between one and seven (Petrides). The uploaded data set was reviewed for missing values. In accordance with the TEIQue-SF scoring protocol, removed from the data set were cases missing more than 15% (4) of the item responses. For cases missing less than 15% of the item responses, a value of '4' was input for the missing value (Petrides). Excel was utilized for data management and SPSS version 23 was utilized for scoring and data analysis.

Descriptive statistics were conducted for the data set. To answer the first research question, the means and standard deviations for continuous variables—the presidents' TEIQue-SF well-being, self-control, emotionality, and sociability trait emotional intelligence factor scores and the global trait emotional intelligence score—were determined and reported. To answer the second research question, the data set for the general population group (the normative sample) was utilized. The normative data came from the *Technical Manual for the Trait Emotional Intelligence Questionnaires (TEIQue)* (Petrides, 2009b).

A two-tailed one sample *t*-test and a chi-squared goodness of fit test were conducted to understand the presidents group and the normative sample (representing the

general population). The one sample *t*-test was the appropriate analysis to compare a sample mean to the hypothesized mean to investigate differences (Hinton et al., 2014). The chi-squared goodness of fit test (Hinton et al.; Pearson, 1900;) was the appropriate analysis to assess if the observed distribution of the study group (the presidents) differed from the normative distribution representing the general population (Hinton et al.).

Prior to conducting the *t*-test, the assumptions of independence and normality were assessed. The assumption volition of independence was assessed via the study sample selection process—if there is random selection then independence is met (Creswell, 2014; Gmelin, 2005). The assumption volition of normality was assessed via the Central Limit Theorem. According to the theorem, if the study sample *N* is greater than 30 then normality is met (Central Limit Theorem Review, wise.cgu.edu, 2015; Diez, Barr, & Çetinkaya-Rundel, 2017; Gmelin, 2005; Mordkoff, 2000/2016).

Also, a Cronbach's alpha test (Cronbach, 1951; Cronbach & Shavelson, 2004) was conducted to assess the reliability (Hinton et al.) of the TEIQue-SF. The inter-item scale reliability for the well-being, self-control, emotionality, and sociability trait emotional intelligence factors and global trait emotional intelligence were reported and compared to the reliability scores reported for the TEIQue-SF instrument in the *Technical Manual for the Trait Emotional Intelligence Questionnaires (TEIQue)* (Petrides, 2009b).

Additionally, frequency distribution and percentages were calculated for demographic categorical variables. The demographic information about the presidents included: (a) age, (b) gender, (c) number of years served as president at their current institutions, (d) total years the presidents have served in the role of president during their career, and (e) number of colleges and universities where the presidents have served in

that role. The information about the colleges and universities where the presidents served at the time of the study included: (a) type of institution where the presidents served—public, private-for-profit, private not-for profit, (b) Carnegie-classification—baccalaureate, master's, doctoral; and (c) total fall 2017 enrollment.

The data analysis results are reported and displayed in tables and figures in Chapter 4. Interpretations of and conclusions from the study results and data analyses are presented in Chapter 5, along with the implications for theory and practice, and recommendations for future research.

Human Participants and Ethics Precautions

This foundational descriptive quantitative study was conducted in accordance with the guidelines of The George Washington University Institutional Review Board (IRB). The study was reviewed and approved by the IRB and the GW Graduate School of Education and Human Development (GSEHD) Senior Associate Dean. Adjustments requested by the IRB were implemented.

Streamlined consent information, approved by the IRB, was included in the introduction section of the survey questionnaire on SurveyMonkey™. Additionally, a detailed consent information document (pdf) was attached to the study recruitment emails. That document reinforced the importance of the consent information and potentially increased participants' confidence in the security and ethical aspects of the study.

The study ensured the confidentiality of survey data. Identifying information from participants was not required and the survey was set-up so survey responses were not linked to individual respondents (Surveymonkey.com, 2017) in an effort to maintain

confidentiality. Participants self-identified themselves if they requested to complete the survey by mail, if they opted-in to receive a copy of their individual emotional intelligence trait scores and/or the aggregated scores of the study group, or if they chose to email the researcher. The identity of participants who self-identified themselves was kept confidential. All findings were reported only in aggregate to maintain confidentiality. After the completion of the dissertation process and in potential future publications and/or presentations, the researcher will continue to protect the privacy of the participants and the confidentiality of the data.

Chapter Summary

This chapter presented the research procedures for the study. First, this chapter identified the research questions investigated. Second, the research design was presented and included the conceptual underpinnings for the study, the reasons why the research design was the best fit for addressing the research questions, the strengths and potential limitations of online and self-administered surveys, and the strategies utilized for minimizing online and self-administered survey limitations. Third, the study population and sampling were discussed, including the sample frame, sample procedure, the minimum required and aspirational response rates, and strategies utilized for maximizing the response rate. Fourth, the data collection plan was described, including information about the data collection instrument, reliability and validity of the instrument, collection of demographic information, and the data collection plan. Next, the chapter presented a description of the data analysis procedures. Finally, the chapter concluded with information about ethics precautions and minimizing risks to participants in the study. The study and data analysis results are reported in the next chapter.

Chapter 4: Results

Overview

This chapter presents the results and descriptive statistical data analyses for the study. The purpose of the study was to discover and describe the trait emotional intelligence of college and university presidents. This was accomplished by conducting a descriptive quantitative study with a survey research design.

The chapter begins with a review of the study questions and hypotheses. This is followed by the results of the study, which are presented in the following order. First, the sample size and response rate data are presented. Reported next are the demographic data about the college and university presidents in the sample and the institutions where the presidents serve. Third, the reliability and validity of the trait emotional intelligence scores obtained from the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) is reviewed. Fourth, the answers to the research questions and hypotheses are put forward—the trait emotional intelligence scores of the college and university presidents and the results of the descriptive statistical analyses are reported and described. Finally, the chapter concludes with a summary of the key study findings.

Review of Research Questions and Hypotheses

The central research question of the study was: What are the emotional intelligence traits of college and university presidents? Operationally, this inquiry addressed the two following fundamental questions:

1. What are the trait emotional intelligence scores of college and university presidents, as measured by the TEIQue-SF? This includes the scores for the

well-being, self-control, emotionality, and sociability trait emotional intelligence factors and global trait emotional intelligence.

2. How do the scores for the well-being, self-control, emotionality, and sociability trait emotional intelligence factors and global trait emotional intelligence of college and university presidents differ from the scores of the general population?

To explore the second research question, there were five hypotheses:

HA_1: The well-being factor mean score of college and university presidents is higher than the mean score of the general population.

HA_2: The self-control factor mean score of college and university presidents is higher than the mean score of the general population.

HA_3: The emotionality factor mean score of college and university presidents is higher than the mean score of the general population.

HA_4: The sociability factor mean score of college and university presidents is higher than the mean score of the general population.

HA_5: The global trait emotional intelligence mean score of college and university presidents is higher than the mean score of the general population.

For the study, the significance level assumption was 0.5 (α=0.5), a common significance level (Creswell, 2014; Faul et al., 2007; Hinton et al., 2014). The results and statistical data analyses of the study follow. The order in which the results and statistical analyses are reported is outlined in the next section.

Sample Size and Response Rate

The Higher Education Directory® listed 1,562 Carnegie-classified baccalaureate, master's, and doctoral institutions on October 21, 2017. Of those colleges and universities, 184 did not list a president, 43 did not list an email address for the president, and twelve had email addresses that bounced back as undeliverable. Also, seven presidents were listed in the directory twice, thus reducing the count by seven; and two presidents were listed three times, further reducing the count by four. These presidents were listed multiple times as their respective colleges and universities had multiple listings due to multiple city locations; and, one was just a duplicate listing. Further, 15 presidents sent email responses declining to participate in the study. Thus, the final sample frame for the study was 1,296 presidents.

A total of 302 survey responses were received electronically. Of these, 2 responses were discarded because of missing data. After the data were compiled, 6 additional surveys were received, although not included in the analysis. None of the presidents requested to complete the survey by mail, though this option was provided. Thus, the study sample was 300 presidents.

The sample size necessary for statistical validity of this study was 34 participants (Table 3.1) (Faul et al, 2007). Underlying the minimum required sample size were four assumptions: (a) the statistical procedures to address the research questions—a two-tailed one sample *t*-test and a chi-square goodness-of-fit test; (b) significance level of .05 ($\alpha = .05$); (c) power of .80 ($1-\beta$); and (d) medium effect size ($d = 0.5$). With 300 study participants, the minimum sample size of 34 participants (Appendix A) for statistical validity of the study was substantially surpassed.

The study also had an aspirational response rate target. Based on the empirical literature, the aspirational goal for the study was to achieve a 20% response rate. With a 23% study response rate, the aspirational response rate goal was exceeded.

Demographics of Study Sample

The overall study sample consisted of 300 college and university presidents. As one participant did not answer the demographic questions, the sample for the demographic portion of the study was 299 presidents. Data collected in this portion of the study addressed demographics about the presidents as well as characteristics about the institutions at which they served. There are four demographic factors about the presidents, and four institutional demographic factors. The findings are narratively and visually presented.

The presidents were asked to describe the type of institution where they served. The majority of respondents were leaders of private not-for-profit institutions (n = 218, 73%) (Figure 4.1). There were few presidents from private for-profit institutions (n = 11, 4%). Additionally, a manual review of websites of the colleges and universities, which participants self-identified, found two institutions were wholly online. Many of the other institutions had some online programs and/or class offerings.

The participants were asked to identify the primary Carnegie-classification of the institution where they served as president (Figure 4.2). Slightly more than half of the presidents in the sample (n = 153, 51%) led Carnegie-classified Master's level institutions. More than one third of the participants led institutions classified as Baccalaureate institutions (n = 107, 36%).

Figure 4.1 **Type of Colleges/Universities Where the Presidents Served**

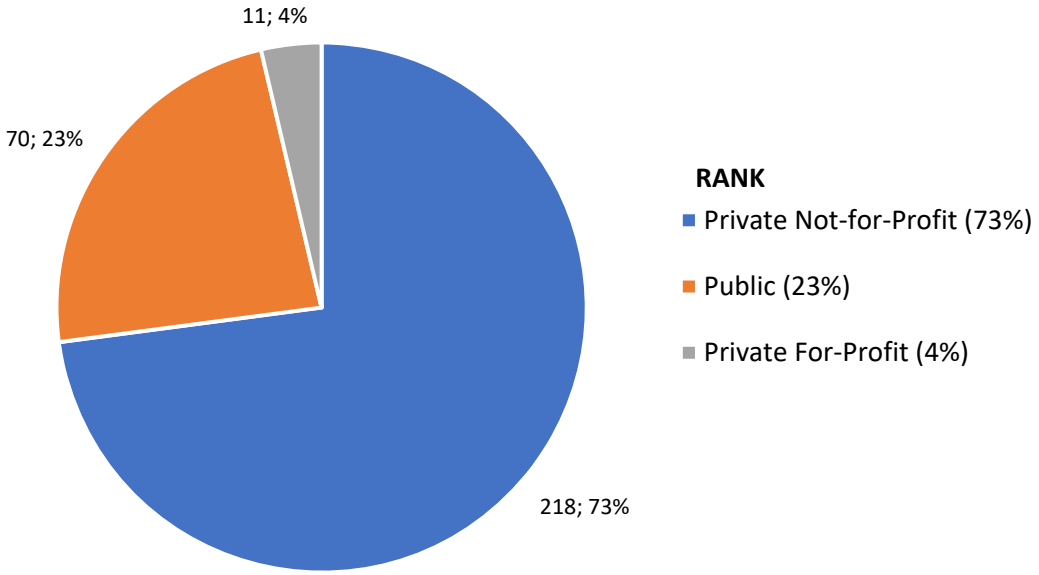
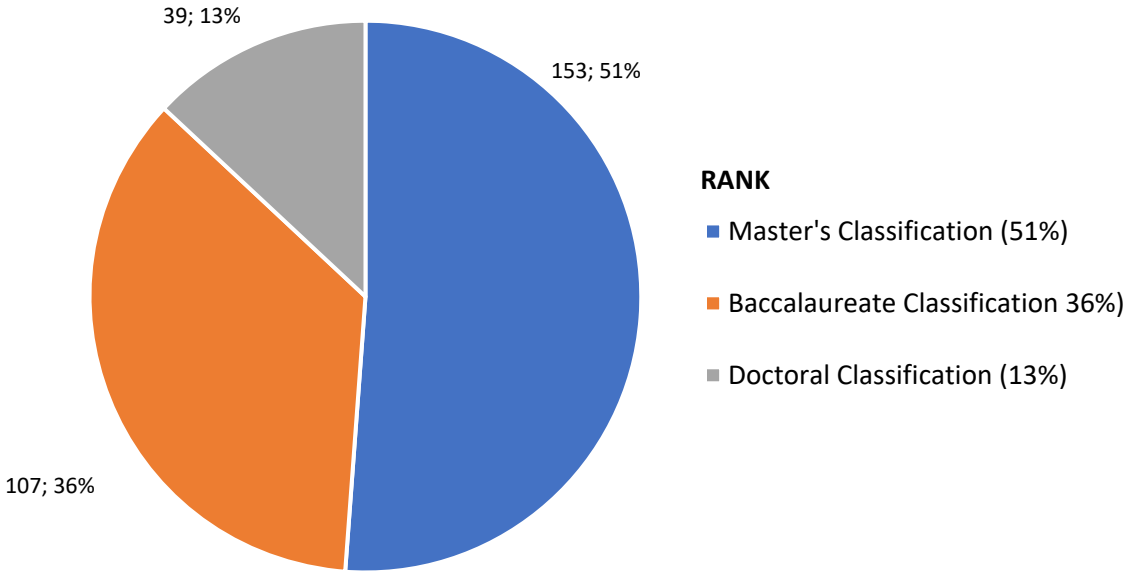


Figure 4.2 **Carnegie Classification of the Colleges/Universities Where the Presidents Served**



The presidents were asked to identify the total fall 2017 enrollment at the institutions where they served (Figure 4.3). The majority of institutions in the sample (*n* = 226, 75%) had less than 5,000 students enrolled. Thirteen institutions (5%) in the sample had 20,000 or more students enrolled in fall 2017.

Presidents reported the length of their presidency at their current institution as of the time of the survey (Figure 4.4). Slightly less than one third of the sample had served as president at their current institution for 1 to 3 years (*n* = 88, 29%). The next most common response was 6 to 10 years (*n* = 64, 21%), followed by 47 presidents (16%) who had served for 11 or more years. Interestingly, the American College President Survey 2017 (Gagliardi, Espinosa, Turk, & Taylor, 2017) reported that on average, presidents serve in their posts for 6 to 7 years.

Additionally, the presidents were asked to indicate the total number of years they had served as a college and/or university president during their career (Figure 4.5). Many participants had served as president for a total of 4 to 10 years (*n* = 130, 44%). Few participants reported having served as a president for 21 or more years (*n* = 16, 5%).

Participants were asked how many positions as a college/university president they had held during their career (Figure 4.6). Most had held one position (*n* = 233, 78%). Of those who had held more than one position, most had held two presidency positions (*n* = 54, 18%). None of the participants had held five or more presidencies.

The presidents were asked to provide their age at the time they completed the survey (Figure 4.7). Nearly than half of the presidents reported they were 60-69 years of age (*n* = 141, 47%). The second most common age range was 50-59 years (*n* = 102, 34%). None of the presidents identified as 39 years or younger.

Figure 4.3 **Fall 2017 Enrollment at the Colleges/Universities Where the Presidents Served**

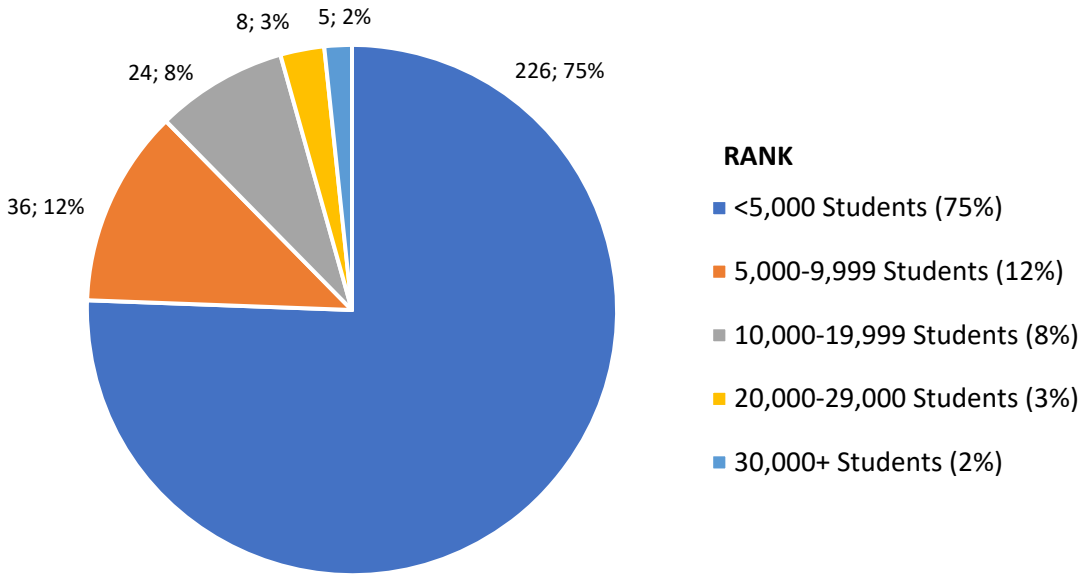


Figure 4.4 **Number of Years Presidents Had Served at Their Current Institution**

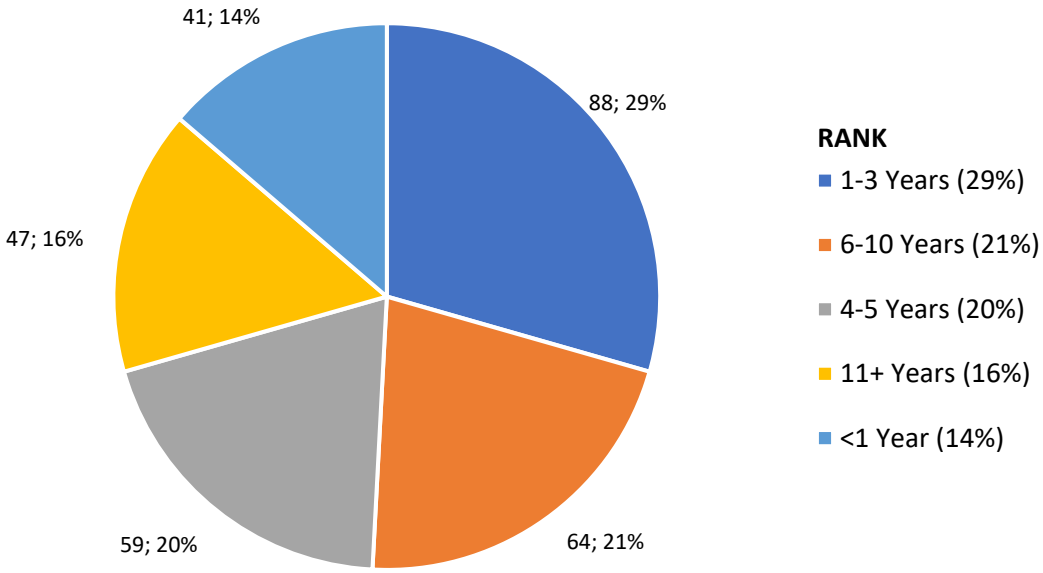


Figure 4.5 **Total Number of Years the Presidents Served in this Role During Their Career**

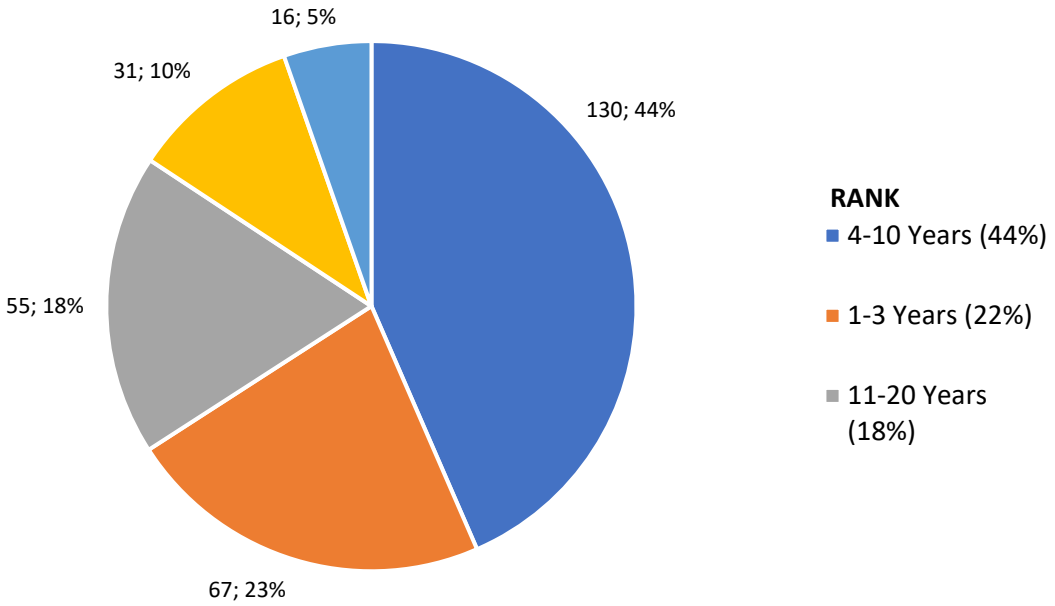


Table 4.6 **Number of Presidencies Held by the Presidents in the Study Sample**

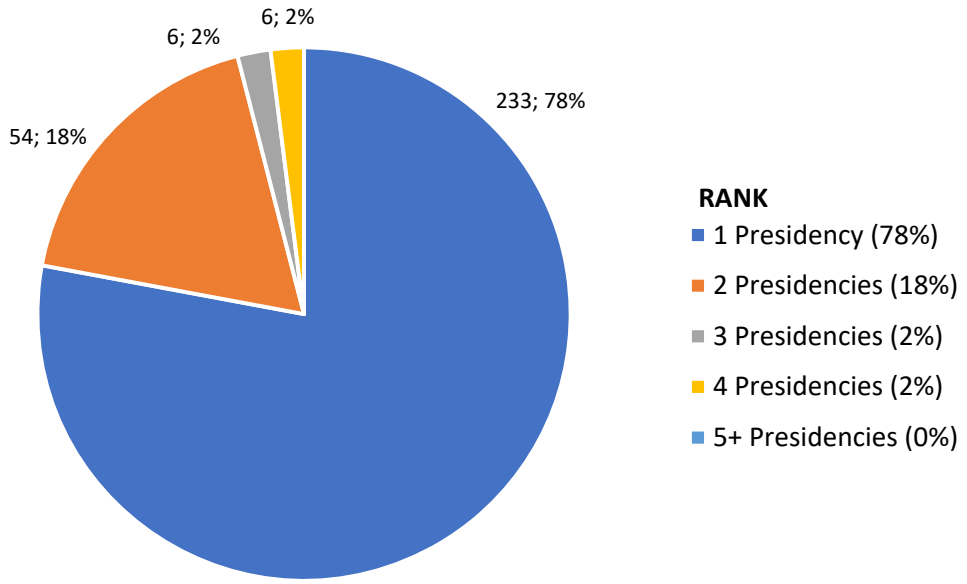
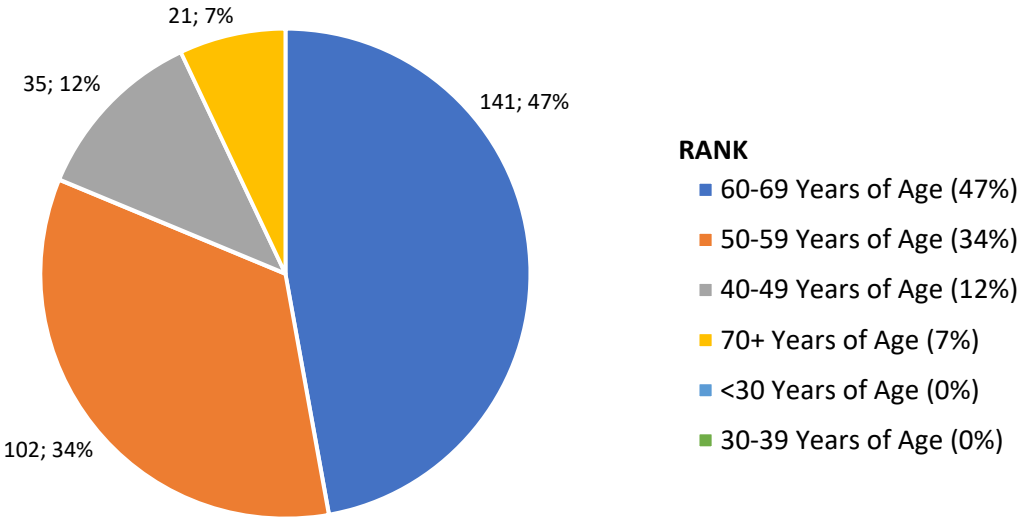
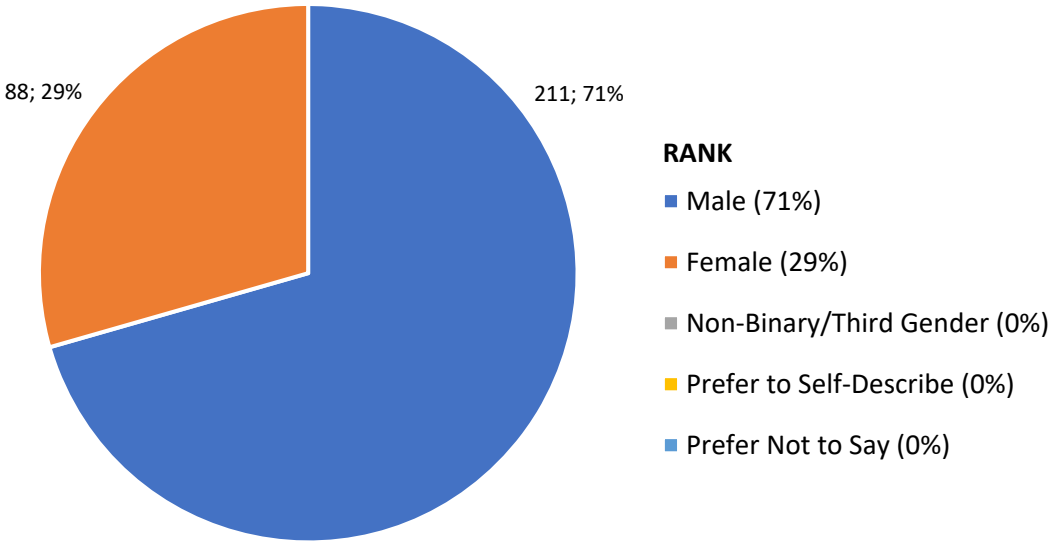


Figure 4.7 **Age of Presidents in the Study Sample**



The presidents were asked to indicate their gender using the Human Rights Campaign (2017) recommended categories for workplace surveys. All the participants identified as either male or female (Figure 4.8). The majority of the participants identified as male (n = 211, 71%), and nearly a third identified as female (n = 88, 29%).

Figure 4.8 **Gender of Presidents in the Study Sample**



TEIQue-SF Reliability and Validity

Several methods were utilized to assess the reliability and validity of the TEIQue-SF study. Cronbach's alpha (α) statistical analysis (Cronbach, 1951; Cronbach & Shavelson, 2004) was conducted to assess the internal consistency reliability of the TEIQue-SF (Hinton et al., 2014). The emotionality, sociability, well-being, and self-control factors of the TEIQue-SF each had six items, which is important to consider when assessing Cronbach's alpha as a low number of items will reduce the value of the alpha coefficient (Cortina, 1993; Cronbach, 2004; Streiner, 2003; Tavakol & Dennick, 2011). The empirical literature has shown that an alpha (α) of .45 to .60 for six items is "acceptable" (Cortina, p. 102). Further, according to Hinton et al., moderate internal reliability is shown by an alpha (α) of .50 to .70 or higher, and an alpha (α) of 0.70 to 0.90 indicates high reliability.

For this study, Cronbach's alpha coefficient for inter-item scale reliability for the well-being, self-control, emotionality, and sociability trait factors and the global trait emotional intelligence score were identified and compared to the reliability scores for the TEIQue-SF instrument reported in the *Technical Manual for the Trait Emotional Intelligence Questionnaires* (Petrides, 2009). Results for the reliability analysis of are presented in Table 4.1.

The Cronbach alpha coefficient for the emotionality factor (α = .66), sociability factor (α = .63), well-being factor (α = .56) and self-control factor (α = .53) for the study sample exhibited acceptable reliability (Cortina, 1993; Streiner, 2003; Hinton et al., 2014). The Cronbach alpha coefficient for global trait EI for the study sample was α = .8, indicating high reliability (Hinton et al., 2014). Petrides (2009b) had similar results for global trait EI and sociability which had high and acceptable reliability, respectively.

Table 4.1 **Cronbach's Alpha (α) Coefficient**

Trait EI Factor	α for Study Sample	α reported by Petrides (2009)	Number of Items
Well-Being	.56	.80	6
Self-Control	.53	.65	6
Emotionality	.66	.73	6
Sociability	.63	.69	6
Global Trait EI	.84	.88	30

Note. Presented in the table are the Cronbach's alpha (α) results for this study and as reported for the TEIQue-SF instrument in the *Technical Manual for the Trait Emotional Intelligence Questionnaires* (Petrides, 2009), p. 76).

The results differed for the remaining trait emotional intelligence factors with lower Cronbach's alpha coefficients for the study sample than those reported by Petrides (2009b).

Additionally, the data analysis followed the protocol set forth by Creswell (2014). Survey responses were examined day by day to see if the responses began to change, which would indicate a potential for response bias. The typical time spent completing the survey was 4 minutes and 48 seconds (SurveyMonkey, 2017). The observed survey responses exhibited general consistency, suggesting response bias was not present. In alignment with the Creswell (2014) protocol, descriptive statistical analyses were conducted to answer the research questions.

Answering the Research Questions

The central research question of the study was: What are the emotional intelligence traits of college and university presidents? Operationally, this inquiry addressed two fundamental research questions and tested a series of hypotheses. This section reports the data and findings of the descriptive statistical analyses to answer the research questions and address the hypotheses.

First Research Question

The first research question was: What are the emotional intelligence trait scores of college and university presidents, as measured by the TEIQue-SF? This includes the scores for the well-being, self-control, emotionality, and sociability trait emotional intelligence factors and global trait emotional intelligence. The process utilized to answer this question is summarized below, followed by a presentation of the study data and descriptive statistics that answer the research question.

Process. The study sample responses on the TEIQue-SF were electronically uploaded and scored according to the TEIQue-SF scoring protocol. The TEIQue-SF is based on a "7-point response scale" (Petrides, 2009, p. 9), ranging from "Completely Disagree" (number 1) to "Completely Agree" (number 7). All the TEIQue-SF responses must range between one and seven (Petrides 2009). The uploaded data set was reviewed for missing values. In accordance with the TEIQue-SF scoring protocol, the two cases missing more than 15% of the TEIQue-SF responses were removed from the sample. For the six cases missing less than 15% of the responses, a value of '4' was input for the missing value (Petrides, 2009).

To answer the research question, the means and standard deviations for the continuous variables—the presidents' TEIQue-SF well-being, self-control, emotionality, and sociability factors and the global emotional intelligence trait scores—were calculated. These findings are presented in the following sections.

Aggregate trait emotional intelligence scores and descriptive statistics. Scores on the TEIQue-SF trait factors and the global emotional intelligence trait each range from 1 (low) to 7 (high). The TEIQue-SF is a self-report measurement. Thus, the

scores reflect how the sample of college and university presidents viewed themselves at the time of the survey. Descriptive statistics for the presidents' TEIQue-SF well-being, self-control, emotionality, and sociability factor trait scores and the global trait emotional intelligence score are reported in Table 4.2. Overall, the mean score for well-being was highest in the sample (M = 6.02, SD = 0.60). The self-control mean score was lowest in the sample (M = 5.52, SD = 0.67).

Table 4.2 **Descriptive Statistics of Presidents' Scores on the TEIQue-SF**

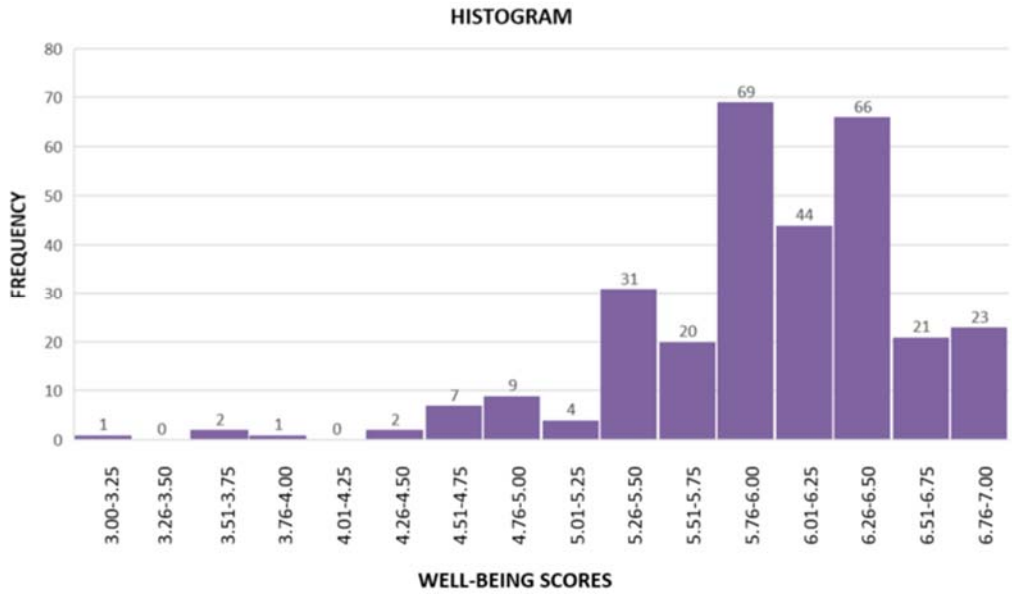
Trait EI Factor	Mean *(M)*	Standard Deviation *(SD)*
Well-Being	6.02	0.60
Self-Control	5.51	0.67
Emotionality	5.90	0.70
Sociability	5.83	0.63
Global Trait EI	5.91	0.46

Well-being trait emotional intelligence factor. Scores on the well-being factor reflect a person's self-perception of how cheerful and content s/he usually feels, if a person has an optimistic perspective about the future, and the extent to which a person values her/himself (Petrides, 2017; Thomas International, 2017). According to Petrides (2009), "individuals with high scores feel positive, happy, and fulfilled. In contrast, individuals with low scores tend to have low self-regard and to be disappointed about their life as it is at present" (p. 61).

Well-being scores ranged from 3.00 to 7.00 within the sample. Figure 4.9 presents a histogram for the frequency distribution of the college and university presidents' scores. The histogram indicates the majority of the well-being factor scores

were distributed between 5.76 and 6.50. The mean well-being score of the study sample was 6.02 (*SD* = 0.60) (Table 4.2).

***Figure 4.9*. Frequency Distribution of Presidents' Well-Being Factor Scores**

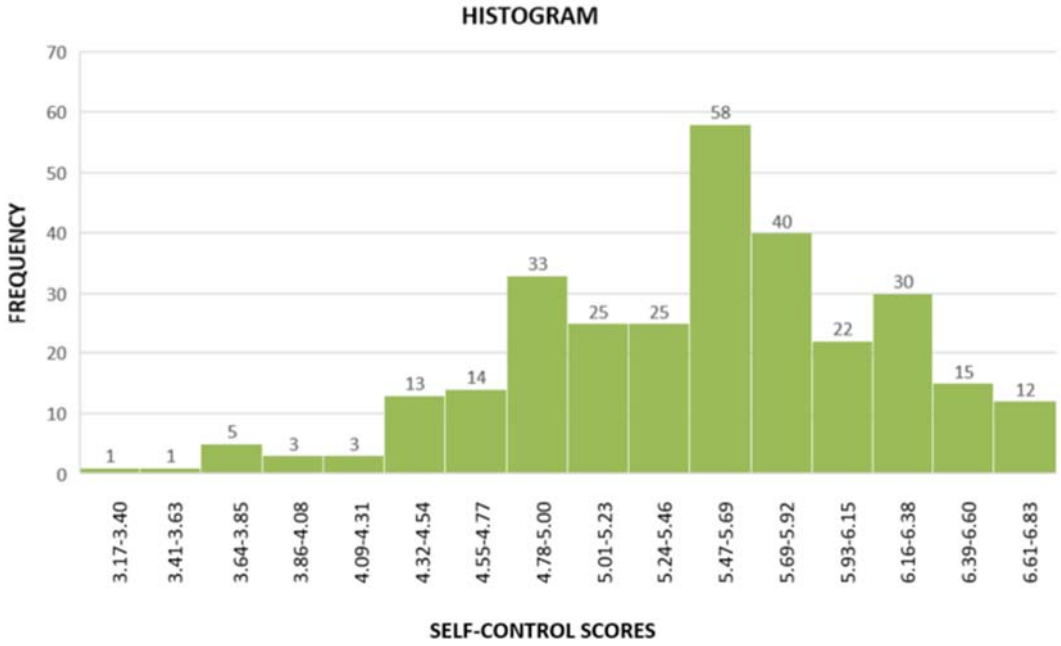


Self-control trait emotional intelligence factor. The self-control factor describes the extent to which a person thinks s/he is capable of withstanding stress and controlling her/his emotions and impulses (Petrides, 2017). People with high scores "have a healthy degree of control over their urges and desires…[and] are good at regulating external pressures and stress" (Petrides, 2009, p. 61). Conversely, people with low scores "are prone to impulsive behavior and may find it difficult to manage stress" (Petrides, 2009, p. 61).

Self-control scores ranged from 3.17 to 6.83 within the sample. Figure 4.10 presents a histogram for the frequency distribution of the college and university presidents' scores on the self-control trait emotional intelligence factor. The histogram displayed a wider range of frequency scores within the sample than well-being scores.

More than half of the presidents scored 6.0 or more, and a quarter (24%) the presidents scored 5.0 or less. The mean score of the study sample was 5.51 (*SD* = 0.67) (Table 4.2).

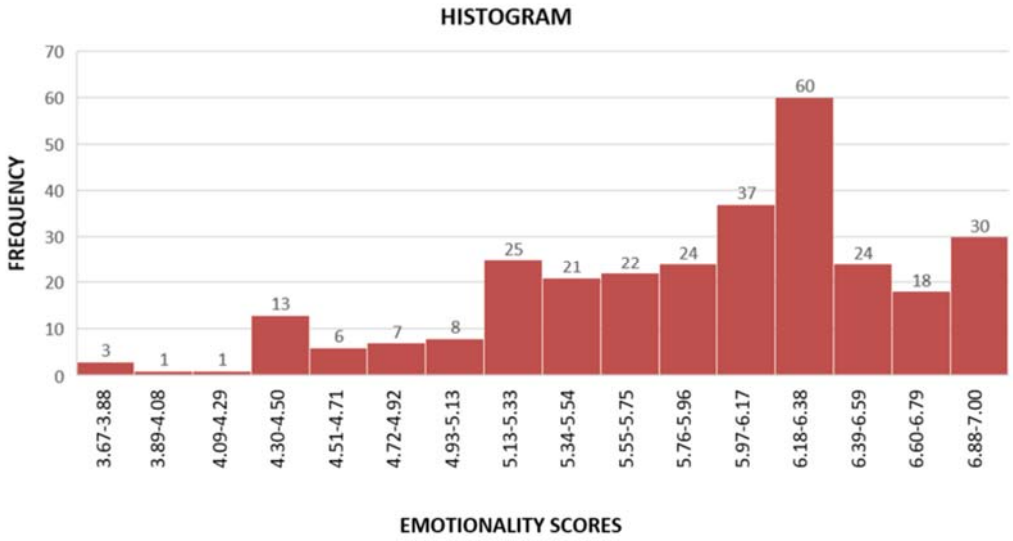
Figure 4.10 **Frequency Distribution of Presidents' Self-Control Scores**



Emotionality trait emotional intelligence factor. The emotionality factor indicates how a person perceives her/his awareness of her/his own emotions and feelings, as well as the emotions and feelings of other people (Petrides, 2017). Further, the emotionality factor reflects the extent to which a person perceives her/his capability for showing empathy and communicating her/his feelings to others (Petrides, 2017; Thomas International, 2017). Individuals with high scores "can perceive and express emotions and use these qualities to develop and sustain close relationships with important others." (Petrides, 2009, p. 61). Conversely, individuals with low scores "find it difficult to recognize their internal emotional states and to express their feelings to others, which may lead to less rewarding personal relationships" (Petrides, 2009, p. 61).

The emotionality factor scores ranged from 3.67 to 7.00 within the sample. Figure 4.11 presents a histogram for the frequency distribution of the presidents' scores. The frequency distribution indicated the majority of scores within the sample were between 5.97 and 7.00, while approximately 12% scored 5.0 or less. The mean emotionality score for presidents in the sample was 5.90 (*SD* = 0.70) (Table 4.2).

Figure 4.11 **Frequency Distribution of Presidents' Emotionality Scores**

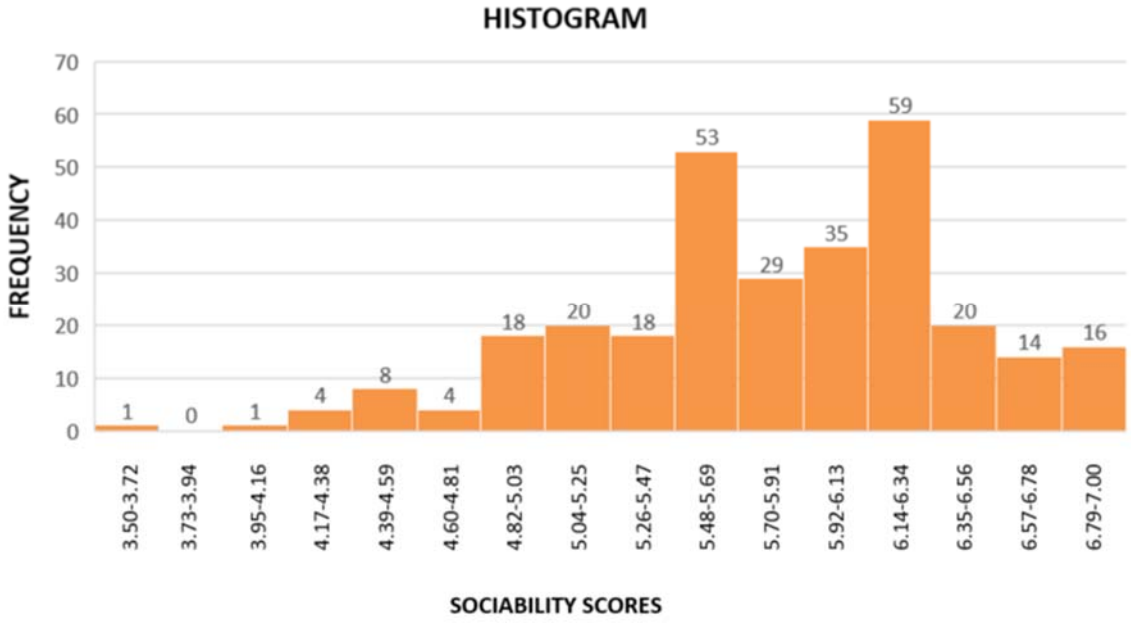


Sociability trait emotional intelligence factor. The individual as an agent in social contexts is the focus of the sociability factor, with emphases on how a person perceives her/his social influence, relationships, and assertiveness (Petrides, 2017; Thomas International, 2017). Individuals with high scores "are better at social interaction. They are good listeners and can communicate clearly and confidently with people from diverse backgrounds" (Petrides, 2009, p. 61). Individuals with low scores "believe they are unable to affect others' emotions and are less likely to be good

negotiators and networkers. They are unsure what to do or say in social situations and, as a result, they often appear shy and reserved" (Petrides, 2009, p. 61).

Sociability emotional intelligence factor scores ranged from 3.50 to 7.00 within the sample. Figure 4.12 presents a histogram for the frequency distribution of the presidents' scores on the sociability factor. As displayed on the histogram, a few scores were in the lower range with the bulk of the sociability scores clustered between 5.48 and 6.34. The sociability mean score was 5.83 (*SD* = 0.63) (Table 4.2).

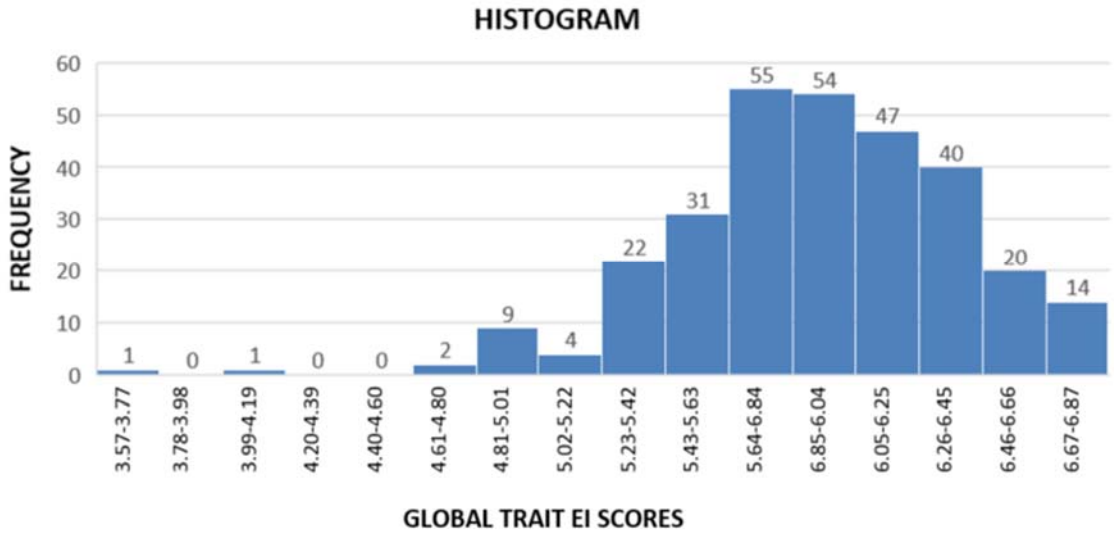
Figure 4.12 **Frequency Distribution for the Presidents' Sociability Scores**



Global trait emotional intelligence. The global trait emotional intelligence score is a snapshot of a person's general emotional functioning (Petrides, 2009, p. 62). The global trait emotional intelligence score indicates the extent to which a person perceives her/his own "capacity to understand, process, and use information about [her/his own] emotions and the emotions of other people" (Thomas International, 2017).

Global trait emotional intelligence scores ranged from 3.57 to 6.87 within the sample. Figure 4.13 presents a histogram for the frequency distribution of college and university presidents' scores on the global trait EI factor. The highest frequency of global trait emotional intelligence scores was between 5.23 and 6.66. The mean global trait emotional intelligence score for the presidents in the sample was 5.91 (*SD* = 0.46) (Table 4.2).

Figure 4.13 **Frequency Distribution for Global Trait Emotional Intelligence Scores**



Second Research Question

The second research question was: How do the scores for the well-being, self-control, emotionality, and sociability trait emotional intelligence factors and global trait emotional intelligence of college and university presidents differ from the scores of the general population?

To explore this research question, there were five hypotheses:

HA_1: The well-being factor mean score of college and university presidents is higher than the mean score of the general population.

HA_2: The self-control factor mean score of college and university presidents is higher than the mean score of the general population.

HA_3: The emotionality factor mean score of college and university presidents is higher than the mean score of the general population.

HA_4: The sociability factor mean score of college and university presidents is higher than the mean score of the general population.

HA_5: The global trait emotional intelligence mean score of college and university presidents is higher than the mean score of the general population.

Process. To answer the research question and address the hypotheses, the data set for the general population group (the normative sample) was utilized. This data came from the *Technical Manual for the Trait Emotional Intelligence Questionnaires* (Petrides, 2009). For each factor and global trait emotional intelligence, a two-tailed one sample *t*-test was conducted to compare the scores of the college and university presidents group (the study sample) and the normative sample (representing the general population).

Each of the two-tailed one sample *t*-tests was checked for assumption volition of independence and normality. Each individual in the study sample population had an equal probability of being invited to participate in the study and an equal opportunity to participate. Thus, independence was met through random selection (Creswell, 2014; Gmelin, 2005). Additionally, the sample *N* was 300 for the study, as well as each of the

four trait emotional intelligence factors and the global trait. Thus, since the sample *N* for each factor and the global trait was greater than 30, normality was met for each of the four trait emotional intelligence factors and the global trait in accordance with the Central Limit Theorem (Diez, D.M., Barr, C.D., & Çetinkaya-Rundel, M., 2017; Gmelin, 2005; Mordkoff, 2000/2016; Central Limit Theorem Review, wise.cgu.edu, 2015).

Chi-square goodness of fit tests were conducted to determine if the TEIQue-SF trait emotional intelligence factors and global trait EI scores for the study sample differed from the normative distributions. Table 4.3 displays the results of the analysis, which were statistically significant for each factor and the global trait emotional intelligence scores. This finding indicated the distributions for the sample data differed from the expected normative distributions.

Table 4.3 **Chi-Square Goodness of Fit Tests for TEIQue-SF Factors & Global Trait**

Measure	χ^2	Df	*p*
Well-being	228.83	18	<.001
Self-control	195.89	21	<.001
Emotionality	162.00	20	<.001
Sociability	176.80	19	<.001
Global trait EI	133.61	58	<.001

Note. χ^2 indicates the Chi-Square; **df** indicates degrees of freedom; ***p*** stands for probability that the test outcome would take a value as extreme or more extreme than that observed.

Well-being factor scores of college and university presidents compared to the general population. On the TEIQue-SF score scale of 1 (low) to 7 (high), the well-being factor mean score of the study sample (college and university presidents) was 6.02. This

was higher than the normative group mean score of 5.43. The result of the one sample *t*-test was significant; Degrees of Freedom for the t-statistic = 299, $t(299) = 16.83$, and $p < .001$. This finding suggested there was a statistically significant difference between the mean well-being score for the sample of college and university presidents and the mean well-being score for the normative sample (representing the general population). Thus, the study finding supported HA_1: The well-being factor mean score of college and university presidents is higher than the mean score of the general population (Table 4.4).

Table 4.4 **Well-Being Factor Mean Scores of Presidents and the General Population**

Well-Being Trait EI Factor	Mean *(M)*	Standard Deviation *(SD)*
Presidents	6.02	0.60
General Population	5.43	1.01

Self-control factor score college and university presidents compared to the general population. On the TEIQue-SF score scale of 1 (low) to 7 (high), the self-control factor mean score of the study sample (college and university presidents) was 5.51. This was higher than the normative group mean score of 4.65. The result of the one sample *t*-test was significant; Degrees of Freedom for the t-statistic = 299, $t(299) = 23.04$, and $p < .001$. This finding suggested there was a statistically significant difference between the mean self-control score for presidents in the sample and the mean self-control score for the normative sample (representing the general population). Thus, the study finding supported HA_2: The self-control factor mean score of college and university presidents is higher than the mean score of the general population (Table 4.5).

Table 4.5 **Self-Control Factor Mean Scores of Presidents and the General Population**

Self-Control Trait EI Factor	Mean *(M)*	Standard Deviation *(SD)*
Presidents	5.51	0.67
General Population	4.62	0.94

Emotionality factor scores of college and university presidents compared to the general population. On the TEIQue-SF score scale of 1 (low) to 7 (high), the emotionality factor mean score of the study sample (college and university presidents) was 5.90, higher than the normative group mean score of 5.25. The result of the one sample *t*-test was significant; Degrees of Freedom for the t-statistic = 299, $t(299) = 16.10$, and $p < .001$. This finding suggested there was a statistically significant difference between the mean self-control score for the study sample of college and university presidents and the mean self-control score for the normative sample (representing the general population). Thus, the study finding supported HA_3: The emotionality factor mean score of college and university presidents is higher than the mean score of the general population (Table 4.6).

Table 4.6 **Emotionality Factor Mean Scores of Presidents and the General Population**

Emotionality Trait EI Factor	Mean *(M)*	Standard Deviation *(SD)*
Presidents	5.90	0.70
General Population	5.25	0.90

Sociability factor scores of college and university presidents compared to the general population. On the TEIQue-SF score scale of 1 (low) to 7 (high), the sociability factor mean score of the study sample (college and university presidents) was 5.83, higher than the normative group mean score of 4.97. The result of the one sample *t*-test was significant; Degrees of Freedom for the t-statistic = 299, $t(299) = 23.43$, and $p < .001$. This finding suggested there was a statistically significant difference between the mean self-control score for the study sample of presidents and the mean self-control score for the normative sample (representing the general population). Thus, the study finding supported HA_4: The sociability factor mean score of college and university presidents is higher than the mean score of the general population (Table 4.7).

Table 4.7 **Sociability Factor Mean Scores of Presidents and the General Population**

Sociability Trait EI Factor	Mean *(M)*	Standard Deviation *(SD)*
Presidents	5.83	0.63
General Population	4.97	0.88

Global trait emotional intelligence of college and university presidents compared to the general population. On the TEIQue-SF score scale of 1 (low) to 7 (high), the global trait emotional intelligence mean score of the study sample of college and university presidents was 5.91, higher than the normative group mean score of 5.11. The result of the one sample *t*-test was significant; Degrees of Freedom for the t-statistic = 299, $t(299) = 30.14$, and $p < .001$. This finding suggested there was a statistically significant difference between the global trait emotional intelligence mean score for the study sample of presidents and the mean score for the normative sample (representing the

general population). Thus, the study finding supported HA_5: The global trait emotional intelligence mean score of college and university presidents is higher than the mean score of the general population (Table 4.8).

Table 4.8 **Global Trait EI Mean Scores of Presidents and the General Population**

Global Trait EI Factor	Mean *(M)*	Standard Deviation *(SD)*
Presidents	5.91	0.46
General Population	5.11	0.89

Chapter Summary

The reliability and validity of the study was indicated by Cronbach's alpha coefficient, adherence to the Creswell (2014) data analysis protocol, the Central Limit Theorem, the Chi-square goodness-of-fit test, and the study sample size. The study sample of 300 college and university presidents at Carnegie-classified institutions substantially surpassed the minimum sample size of 34 required for statistical validity, and the 23% response rate exceeded the 20% aspirational response rate goal.

The scores for the four trait emotional intelligence factors and the global trait emotional intelligence of the 300 college and university presidents comprising the study sample and as measured by the TEIQue-SF were identified and reported. The mean scores for the presidents and the general population group (the normative group) are displayed in Table 4.9.

Table 4.9

Mean TEIQue-SF Trait EI Scores of Presidents and General Population

	College & University Presidents		General Population	
TRAIT	***M***	***SD***	***M***	***SD***
Well-Being Factor	6.02	0.60	5.43	1.01
Self-Control Factor	5.51	0.67	4.62	0.94
Emotionality Factor	5.90	0.70	5.25	0.90
Sociability Factor	5.83	0.63	4.97	0.88
Global Trait EI	self5.91	0.46	5.11	0.89

Note. *M* is the mean score. SD is the standard deviation. The general population group data is the normative group data reported in the *Technical Manual for the Trait Emotional Intelligence Questionnaires (TEIQue)* (Petrides, 2009, p. 76). The TEIQue-SF score is a scale of 1 (low) to 7 (high).

The TEIQue-SF mean scores of the college and university presidents were all higher than the respective mean scores of the general population group. All five of the *t*-test findings suggested there was a statistically significant difference between the mean scores of the college and university presidents and the mean scores of the general population group. The study findings answered both of the research questions and supported the five hypotheses.

Chapter 5: Interpretations, Conclusions, and Recommendations

Introduction

This research was a foundational descriptive quantitative study to identify and describe the trait emotional intelligence of college and university presidents. The intention of the research was to generate foundational new knowledge that could serve as a springboard for future scholarly work and practice. To provide context for interpreting the research data, drawing conclusions from those findings, and positing recommendations for theory, practice and research, it is important to revisit core salient points from the literature and review the problem statement.

Emotional intelligence is a powerful and "critical component of leadership" (Prati, Douglas, Ferris, Ammeter, Buckley, 2003a, p. 27; Barbuto & Bugenhagen, 2009; Barbuto & Burbach, 2006; Carrington, 2015; Goleman, 1995/2006; 1998a, 1998b, George, 2000; Mandell & Pherwani, 2003; Palmer, Walls, Burgess, & Stough, 2001; Rodriguez, 2016; Salovey & Mayer, 1990). Further, emotional intelligence has been conceptually and empirically linked to effective leadership (Amram, 2009; Bar-On, 1997; Golden, 2015; Goleman, 1995/2006; Higgs, 2002; May-Vollmar, 2017; Mayer & Salovey, 1995; Rosete, 2007; Rosete & Ciarrochi, 2005). Some scholars contend emotional intelligence is a foundational element of effective leadership (Goleman, 1998; Goleman, Boyatzis, & McKee, 2002; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003), while others view emotional intelligence as having an intuitively compelling relationship with leadership effectiveness (Ashkanasy & Tse, 2000; Caruso, Mayer, & Salovey, 2003; Daus, 2006/2013; George, 2000). Further, research has evinced that emotional intelligence is predictive of effective leadership (Rosete & Ciarrochi, 2005).

The scholarly body of theoretical and empirical literature about emotional intelligence and leadership continues to grow. Unfortunately, there has been a paucity of research and information in the scholarly literature about the emotional intelligence and leadership of college and university presidents. Higher education in the United States is an immense sector—more than 20.4 million students are enrolled (U.S. Department of Education, 2017), approximately 4 million people are employed including more than 1.6 million faculty members (HigherEd Jobs, 2017; U.S. Department of Education, 2017), and estimated aggregate annual expenditures exceed $400 billion (Bok, 2013, p. 9) not including the for-profit institutions. Serving as a college or university president has been described as one of the most challenging leadership roles (Birnbaum, 1989; Gee &Weaver Hart, 2015; Ruscio, 2017), and "now more than ever, leading an institution of higher education is a difficult and complicated endeavor" (Gagliardi, Espinosa, Turk, & Taylor, 2017). Scholars and past presidents have asserted that emotional intelligence is a key factor for successful leadership by college and university presidents (Borenstein, 2015; Cherniss, 1998; Gee & Weaver Hart, 2015l; Johnson, Aiken, and Steggerda, 2005; Shaw, 1999). That this population has been insufficiently studied poses a problem since emotional intelligence and leadership theory and practice have not been informed or shaped by knowledge about this sector and population of leaders.

This study contributes to the conversation and begins to fill the void of information about the higher education sector and leadership in the scholarly emotional intelligence literature. Further, it lays a foundation and spring board for future scholarly work to help respond to the call from (Burke, 2011) about the need "to know much more about how to: (a) work with loosely coupled systems, (b) change the culture of the

organization, (c) identify and deal with *perceived* resistance to change more effectively, and (d) get leadership development right" (p. 146).

Review of Framework and Research Questions

The research study was framed on the constructs of emotional intelligence and leadership. As a foundation, the study used the trait emotional intelligence theory and model advanced by Petrides (Petrides, 2009a, 2009b, 2010, 2017; Petrides & Furnham, 2000b, 2001, 2003; Petrides, Pérez-Gonzàlez, & Furnham, 2007; Petrides, Pita, & Kokkinaki, 2078). Central to this theory is the concept of self-efficacy (Bandura, 1977, 1997; Petrides, 2009b) and the "inherent subjectivity of emotional experience" (Petrides, 2017, p. 2). The model representing the theory of trait emotional intelligence is psychometrically based and comprises the overarching global trait score and four factor scores: well-being, self-control, emotionality, and sociability. This model is operationalized through the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF), and other versions of the instrument, all of which are psychometrically validated and among the most extensively used instruments around the world (Petrides, 2009b; London Psychometric Laboratory, 2018). The second component of the foundation for this study was definition that "influence is the *essence* (italics in original) of leadership" (Yukl, 1998/2013, p. 406; Birnbaum, 1987). The third component of the study was the concept of effective leadership, as put forward in the Five Practices of Exemplary Leadership Model developed by Kouzes and Posner (1987/2017). The model comprises five leadership practices: (i) Model the way, (ii) Inspire a shared vision, (iii) Challenge the process, (iv) Enable others to act, and (v) Encourage the heart. As cited earlier in this section, the empirical and theoretical literature streams evince a

positive and predictive relationship between emotional intelligence and leadership effectiveness.

The purpose of this foundational descriptive study was to identify and describe the trait emotional intelligence of college and university presidents. The central research question of the study was: What are the emotional intelligence traits of college and university presidents? Operationally, this inquiry addressed the following fundamental questions:

1. What are the trait emotional intelligence scores of college and university presidents, as measured by the TEIQue-SF? This includes the scores for the well-being, self-control, emotionality, and sociability trait emotional intelligence factors and global trait emotional intelligence.
2. How do the scores for the well-being, self-control, emotionality, and sociability trait emotional intelligence factors and global trait emotional intelligence of college and university presidents differ from the scores of the general population?

To explore the second research question, there were five hypotheses.

HA_1: The well-being factor mean score of college and university presidents is higher than the mean score of the general population.

HA_2: The self-control factor mean score of college and university presidents is higher than the mean score of the general population.

HA_3: The emotionality factor mean score of college and university presidents is higher than the mean score of the general population.

HA_4: The sociability factor mean score of college and university presidents is higher than the mean score of the general population.

HA_5: The global trait emotional intelligence mean score of college and university presidents is higher than the mean score of the general population.

Through the series of hypotheses, the study explored the presidents' scores on the measures of the well-being, self-control, emotionality, and sociability factors and global trait emotional intelligence, and compared the scores of the college and university presidents to those of the general population (normative group). This was accomplished by conducting a survey study with a census strategy and using descriptive statistics to analyze the collected data.

Findings and Interpretations

The research study was grounded in the functionalist paradigm as put forward by Burrell and Morgan (1979/2009). Accordingly, the study utilized a realist ontological perspective, viewing the nature of beings and the world as tangible and real (Burrell & Morgan, 1979/2009). Second, a positivist epistemological lens guided this study—that is, knowledge is considered a cumulative process adding to the existing stock of knowledge (Burrell & Morgan, 1979/2009). Third, the study had a deterministic view of human nature, that humans and their experiences are regarded as products of the environment and situation (Burrell & Morgan, 1979/2009). Finally, a nomothetic research methodology was utilized. This method emphasizes systemic protocol and technique, quantitative approaches, and generalizable knowledge as a research goal (Burrell & Morgan, 1979/2009). It was through the lenses of these conceptual underpinnings that the research was conducted and the findings were interpreted.

This study generated a range of findings. Presented and discussed first are the findings and interpretations about the trait emotional intelligence scores of the college and university presidents who participated in the study. Second, put forward are findings and interpretations about the demographic characteristics of the study sample presidents and the institutions where they served. Third, the high number of study participants and the strategies and tactics utilized to achieve the large study sample are described.

A. Trait Emotional Intelligence of College and University Presidents

The descriptive quantitative analysis of this foundational study was based on the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF). The TEIQue-SF measures the well-being, self-control, emotionality, and sociability factors and the overarching global trait of emotional intelligence. The mean scores of the study sample of college and university presidents were compared to the mean scores of the general population (normative group). Following are the salient findings and interpretations of these findings.

1. Emotional Intelligence Mean Scores of College and University Presidents Compared to General Population (Normative Group)

The study found that the emotional intelligence mean scores of the sample of 300 college and university presidents in the study sample were higher than the respective scores of the general population group (see Table 5.1). Also, all five of the *t*-test findings suggested there were statistically significant differences between the means scores of the college and university presidents and the mean scores of the general population (normative group). Additionally, the mean scores of the college and university presidents were all higher than the theoretical

mean score of 3.5 (Petrides, 2009b) for each of the four factors and the global trait. Thus, these findings indicate the collective of the college and university presidents in the study sample have high trait emotional intelligence.

Table 5.1 **Summary of Comparison Findings**

Trait	Emotional Intelligence Mean Scores of College and University Presidents Compared to General Population
Well-Being Factor	Higher
Self-Control Factor	Higher
Emotionality Factor	Higher
Sociability Factor	Higher
Global Trait EI	Higher

It was not surprising this study found the sample of college and university presidents to collectively have higher trait emotional intelligence. First, emotional intelligence has been empirically shown to develop naturally with age (Bar-On, 1997b; Mayer, Caruso, & Salovey, 1999; Van Rooy & Viswesvaran, 2007). In the study sample of college and university presidents, all of the presidents are older than 40 and more than half are 60 or more years of age. In contrast, the for the general population (normative group) the mean age is 20.65 years (Petrides, 2009b).

Second, college and university presidents are a distinguished group of individuals. For example, the *American College President Study 2017* reported that nearly 80% of college presidents had earned doctoral degrees (Gagliardi, Espinosa, Turk, &Taylor, 2017). In comparison, *Educational Attainment in the United States: 2015* report published by the U.S. Census Bureau stated that just

12% of the America population had advanced degrees (master's, professional, doctoral) (Ryan & Bauman, 2016). Trait emotional intelligence has been shown to have a favorable connection to academic performance and may confer a performance advantage, according to the Perera and DiGiacomo (2013) meta-analysis which analyzed "48 independent studies with a cumulative sample size of 10,292" (p. 20).

Third, college and university presidents have successfully advanced through career pathways to the executive position of college and university president. Findings from the Joseph, Jin, Newman, and O'Boyle (2015) meta-analysis—which analyzed research studies and prior meta-analyses—showed that self-reported emotional intelligence is "one of the strongest known personality-based predictors of job performance" (p. 318). Characteristics of emotional intelligence that may be attributable to college and university presidents' successful job performance and advancement on career pathways to presidency positions may include self-motivation, confidence, assertiveness, skillful in conversations and negotiations, demonstration of organization commitment, control of one's own emotions, extraversion, conscientiousness, and being primarily directed to the future rather than the past (Borenstein, 2015; Joseph et al., 2015; Petrides, 2009b).

Lastly, the scholarly literature indicates that the higher up an individual goes in an organization, the more important emotional intelligence becomes. This is empirically evinced through studies conducted by Dulewicz and Higgs (2003); Dulewicz, Young, and Dulewicz (2005); Goleman, Boyatzis, and McKee (2013);

Siegling, Nielson, and Petrides (2014); and Stein, Peter, Papadogiannis, Yip, and Sitarenios (2009). Hence, it was not surprising this study found the sample of college and university presidents to collectively have higher trait emotional intelligence compared to the general population (normative group).

2. Well-Being Trait Emotional Intelligence Factor Scores of College and University Presidents Sample

On the well-being factor, the college and university presidents had a mean score of 6.02, while the mean score of the general population was 5.43 on a scale of 1.00 to 7.00. The difference in the mean scores is statistically significant. Thus, the study finding supports HA_1: The well-being factor mean score of the sample college and university presidents was higher than the mean score of the general population.

The high mean score of the sample of college and university presidents suggests that overall the presidents have a positive self-perception and are confident, positive, and satisfied with most aspects of their lives. Additionally, it suggests that overall the sample of college and university presidents have a pleasant emotional state and are primarily directed towards the present and future, rather than the past. They tend to look on the bright side and expect positive things to happen (Petrides, 2009b).

3. Self-Control Trait Emotional Intelligence Factor Scores of College and University Presidents Sample

The mean self-control score of the sample of college and university presidents was 5.51 and more than half of the presidents scored 6.0 or more, while

the mean score of the general population was 4.62 on a scale of 1.0 to 7.0. The difference in the mean scores is statistically significant. Thus, the study finding supports HA_2: The self-control factor mean score of the sample of college and university presidents was higher than the mean score of the general population.

The self-control factor describes how far people think they can control their impulses or are controlled by them. The mean score of the sample of the college and university presidents suggests that generally the presidents perceive themselves as effective at thinking before acting and reflecting carefully before making decisions. That is, overall the presidents are keen to weigh information before making a decision, while generally not being overly cautious. Second, the scores of the sample of presidents suggests that, overall, they view themselves as having control of their emotions and being able to change unpleasant moods or prolong pleasant moods through personal insight and effort. Overall, the sample of presidents perceive themselves to be psychologically stable and generally know how to pick themselves up after emotional setbacks. Third, this score suggests that many of college and university presidents believe they have developed good stress coping mechanisms and are successful at tackling stress (Petrides, 2009b).

A subgroup of the college and university presidents had somewhat lower scores on the self-control factor. Nearly a quarter of the college and university presidents in the study sample scored 5.0 or below on the self-control factor—although this score is higher than the 4.62 mean score of the general population. This is similar to a finding from the Stein, Peter, Papadogiannis, Yip, and Sitarenios (2009) study of the emotional intelligence of executives. The 186

executives in the Stein et al. study scored significantly higher in overall emotional intelligence than the general population (normative group), however the executives had significantly lower impulse control scores than the general population. As with the executives in the Stein et al. study, the lower self-control scores of this sub-group of college and university presidents may be attributed to the facets that comprise the self-control factor. These facets include impulsiveness, stress management, and emotional regulation (Petrides, 2009b). The presidents' levels of stress, patience, and emotional control may be affected by the confluence of the organizational complexity of colleges and universities (Bok, 2013; Fullan & Scott, 2009; Ruben, De Lisi,& Gigliotti, 2017), the many external and internal demands in the higher education environment (Gagliardi, Espinosa, Turk, & Taylor, 2017; Jaschik & Lederman, 2017), and the "typically wide variety of scenarios in which they [presidents] have to deal with individuals in acrimonious or otherwise challenging situations" (Borenstein, 2015, p. 1). Thus, it is not surprising that a subgroup of the college and university presidents had somewhat lower scores on the self-control factor.

4. Emotionality Trait Emotional Intelligence Factor Scores of College and University Presidents Sample

The emotionality mean score of the sample of college and university presidents was 5.90, and the mean score of the general population was 5.25 on a scale of 1.0 to 7.0. The difference in the mean scores is statistically significant. Thus, the study finding supports HA_3: The emotionality factor mean score of the

sample of college and university presidents was higher than the mean score of the general population.

The emotionality factor describes the extent to which people believe they are in touch with their own and others' emotions and feelings. The emotionality factor mean score of the sample of college and university presidents suggests the majority of the presidents perceive themselves as empathetic, and generally tend to be skillful in conversations and negotiations since they are able to consider the viewpoints of the people with whom they are engaged. Second, the mean score of the sample of presidents suggests most of the presidents generally perceive themselves as clear about what they feel and believe they are good at decoding other people's emotional expressions. Third, the presidents' score suggests the majority consider themselves fluent and effective in communicating their own emotions to others. That is, they generally have a good sense about what words to use to express their feelings accurately and unambiguously. Finally, the mean score of the presidents suggests that personal relationships are important to most of the presidents. Overall, they find it important to have emotional bonds with others, and generally perceive these relationships as positively affecting their productivity and emotional well-being. Further, the presidents' mean score suggests most of the presidents believe they know how to listen and be responsive to the people close to them (Petrides, 2009b).

A subgroup of the college and university presidents had somewhat lower scores on the emotionality factor. Close to a fifth of the college and university presidents in the study sample scored 5.0 or below on the emotionality factor.

This is lower than the 4.62 mean score of the general population. The lower scores of this subgroup of presidents reflect, generally, that these presidents have difficulty in recognizing their own emotions, expressing their feelings to others, and/or being in touch with other people's feelings (Petrides, 2009b, 2017; Thomas International, 2017). Additionally, this subgroup generally has lower empathy, meaning they tend to have some difficulty understanding other people's perspectives" (Petrides, 2009b). Hence, these presidents are somewhat "more opiniated and argumentative and may often seem self-centered" (p. 60). As posited by Lynch, "'humility' isn't a word that most academics identify with" (2017, p. 1).

5. Sociability Trait Emotional Intelligence Factor Scores of College and University Presidents Sample

The sociability mean score of the sample of college and university presidents was 5.83, while the mean score of the general population was 4.97 on a scale of 1.0 to 7.0. The difference in the mean scores is statistically significant. Thus, the study finding supports HA_4: The sociability factor mean score of the sample of college and university presidents was higher than the mean score of the general population.

The sociability factor mean score of the college and university presidents sample suggests they generally perceive themselves as assertive, forthright, and frank. The presidents view themselves as able to ask for things, to give and receive compliments, and to be able to confront others when necessary. The sociability mean score of the sample of presidents indicates that overall, they have

leadership qualities and are able to stand up for their values, rights, and beliefs. Further, the sociability mean score of the sample of presidents suggests that overall, the presidents view themselves as flexible in their approach to work and life, and generally able to adapt to new conditions, environments, and situations. Finally, the presidents' sociability mean score suggest they consider themselves to be effective at influencing other people's feelings—that is, able to motivate others, inspire others, and calm others down.

6. Global Trait Emotional Intelligence Scores of College and University Presidents Sample

The global trait emotional intelligence mean score of the sample of college and university presidents was 5.91, while the mean score of the general population was 5.11 on a scale of 1.0 to 7.0. The difference in the mean scores is statistically significant. Thus, the study finding supports HA_5: The global trait emotional intelligence mean score of college and university presidents was higher than the mean score of the general population. Additionally, the study found the majority of the college and university presidents (88%, n = 264) had individual global trait emotional intelligence scores that were higher than the 5.11 mean score of the general population (normative group). These high scores allude to the generally high emotional intelligence of the majority (88%) of the college and university presidents in the study sample.

The global emotional intelligence trait score provides a high-level snapshot of emotional intelligence and reflects an individual's overall emotional functioning. It suggests that overall the presidents have positive self-efficacy

regarding emotional intelligence, and are generally and positively conscientious, mentally stable, sensitive, and extraverted. Additionally, these presidents' high global trait scores indicate they have pro-social behavior, job satisfaction, humility, and demonstrate organizational commitment (Petrides, 2009b).

7. Leadership Effectiveness and College and University Presidents Sample

The study found that the majority of the college and university presidents in the study sample have high trait emotional intelligence. The scholarly literature has shown that high emotional intelligence is positively linked to and predictive of effective leadership (Amram, 2009; Bar-On, 1997; Golden, 2015; Goleman, 1995/2006; Higgs, 2002; May-Vollmar, 2017; Mayer & Salovey, 1995; Rosete, 2007; Rosete & Ciarrochi, 2005). Thus, these findings suggest that the majority of the college and university presidents demonstrate leadership effectiveness in their roles.

8. Opportunities to Enhance Trait Emotional Intelligence, Professional Performance, and Leadership Effectiveness of Sample Subgroup

This study found a subgroup of college and university presidents in the study sample had lower trait emotional intelligence scores across the four factors and global trait than the mean scores of the general population (normative group)—see Table 5.2. This finding indicates these presidents have lower self-perceptions in these areas of emotional intelligence. Central to trait emotional intelligence is the concept of self-efficacy, (Bandura, 1997; Petrides, 2009b). According to Bandura (1997), "people's beliefs about their personal efficacy constitute a major

aspect of their self-knowledge" (p. 79) and "perceived self-efficacy influences performance" (p. 194).

Table. 5.2 **Subgroup of College and University Presidents with Lower Trait Emotional Intelligence Scores**

FACTOR/TRAIT	Mean Score of General Population (Normative Group)	Subgroup Scores	% of Total Sample
Well-Being Factor	5.43	3.0-5.42	14%
Self-Control Factor	4.63	3.17-4.61	33%
Emotionality Factor	5.25	3.67-5.24	31%
Sociability Factor	4.97	3.5-4.96	9%
Global Trait	5.11	3.54-5.10	12%

This finding of the sample subgroup of presidents with lower trait emotional intelligence scores than the general population (normative group) reveals opportunities for improvement. The theoretical and empirical literature have shown "it is both important and possible to educate people to be emotionally intelligent" (Bar-On, 2007, p. 11; Goleman, 1998; Petrides, 2017; Rude, 2013).

Hence, this finding presents an opportunity to engage this subgroup of college and university presidents in personal/professional development programs to enhance their trait emotional intelligence and self-efficacy. In turn, this is likely to enhance the professional performance of these presidents. Findings from the Joseph, Jin, Newman, and O'Boyle (2015) meta-analysis showed that self-reported emotional intelligence is "one of the strongest known personality-based predictors of job performance" (p. 318).

Summary

To summarize, this section presented and interpreted the findings about the trait emotional intelligence of the study sample of college and university presidents. This included the presidents' scores on the well-being, self-control, emotionality, and sociability factors and global trait emotional intelligence. The findings showed the majority of the college and university presidents had high trait emotional intelligence ad higher trait emotional intelligence than the general population (normative group). Additionally, the findings suggested the majority of the college and university leadership sample demonstrate leadership effectiveness. Also, the findings identified an opportunity to engage a subgroup of college and university presidents, who had lower trait emotional scores, in personal and/or professional development and learning activities to enhance their trait emotional intelligence and thus their professional performance. In the next section, presented are the salient findings and interpretations about demographic characteristics of the study sample of college and university presidents.

B. Demographic Characteristics of the College and University Presidents Sample

This study found several salient and interesting demographic characteristics about the college and university presidents in the study sample. First, key aspects of the study sample of presidents were essentially consistent with the population of college and university presidents—specifically in the areas of gender distribution, age distribution, and the number of presidencies held. Other stand out findings within the study sample were that the majority of the presidents were at private not-for-profit institutions and institutions with enrollment of 5,000 or fewer students. Lastly, the findings show the study sample was relatively homogenous in terms of age and education when compared

to the general population/normative group. Following are descriptions and interpretations of these findings.

1. Gender Distribution of College and University Presidents Sample

The gender distributions within the college and university presidents study sample and population were essentially consistent. In the study sample, 71% of the presidents identified as male and 29% identified as female. The population of presidents was 70% male and 30% female, as reported by the American Council on Education (2018). In this aspect, the gender distributions of the study sample mirrored the population of college and university presidents.

2. Age Distribution of College and University Presidents Sample

The age distributions between college and university presidents in the study sample and population were similar, as presented in Table 5.3. The age distributions within the population of presidents were reported by the American Council of Education (2018). First, in both the study sample and the population, all the presidents were more than 39 years of age. Second, in both groups more than half of the presidents were 60 years of age or older. Further, in both groups more than a third of the presidents were between 50 and 60 years of age. Thus, the age distributions of the study sample and population of college and university presidents were fairly consistent.

Table 5.3 **Age of College and University Presidents**

STUDY SAMPLE		POPULATION	
Years of Age	**% of Presidents**	**Years of Age**	**% of Presidents**
39 and under	0%	40 and under	0%
40-49	12%	41-50	8%
50-59	34%	51-60	33%
60+	54%	61+	58%

Note: Population data is from the American Council on Education (2018).

3. Presidency Posts Held by the College and University Presidents Sample

The number of presidencies held by the presidents in the study sample and the population were fairly consistent and are presented in Table 5.4. In both the study sample and population, the majority (78% and 75%, respectively) of presidents were in their first position as a college or university president. Also, in both the study sample and population, none of the presidents had held five or more college and/or university presidency positions. Further, the percentages of presidents in the study sample and population that had held two presidency positions were similar at 18% and 19%, respectively. Thus, the study sample and population of college and university presidents were fairly consistent in terms of the number of presidency posts held by the presidents.

Table 5.4 **Number of Presidencies Held**

Number of Presidencies Held	% of Presidents in Study Sample	% of Presidents in Population
1 Presidency Position	78%	75%
2 Presidency Positions	18%	19%
3 Presidency Positions	2%	5%
4 Presidency Positions	2%	1%
5+ Presidency Positions	0%	0%

Note: Population data is from the American Council on Education (2018).

4. Institutions where College and University Presidents Sample Served

Demographic characteristics of the institutions where the presidents in the study sample served were collected. The majority (n=218, 73%) of the study sample presidents served at private not-for-profit institutions. Also, the majority (n=226, 75%) of the study sample presidents served at institutions that had less than 5,000 students enrolled in fall 2017. Private not-for-profit institutions with enrollments of less than 5,000 students are primarily four-year colleges that award baccalaureate degrees (Box, 2013). Hence, it may be inferred that a large subgroup of presidents in the study sample served as presidents at private four-year baccalaureate colleges.

There are many ways in which four-year baccalaureate colleges differ from the much larger research universities, comprehensive universities, and for-profit institutions (Bok, 2013). Salient differences are presented in Table 5.5. At private four-year colleges, the student body is substantially smaller, students are all undergraduates who attend full-time and reside on campus (or in close proximity off campus), and academic programs are face-to-face on campus offerings (not online). The private four-year colleges are not comprised of other post-secondary colleges and schools like the research universities, comprehensive universities, and some for-profit institutions. Also, the private four-year colleges have fewer faculty and staff, and fewer subunits (e.g. departments, divisions, centers, institutes). Thus, presidents of private four-year colleges have less of a buffer between themselves and the institution's many stakeholder constituencies—such as students, faculty, staff, alumni, parents, and donors—than

the presidents of the other categories of higher education institutions. This is distinction is particularly evident in comparison to the large universities such as the University of Central Florida, Texas A&M University, and Ohio State University which each had more than 60,000 students enrolled in 2017(University of Central Florida, 2017; Texas A&M University, 2017; Ohio State University, 2017); and compared to most for-profit institutions whose offerings

Table 5.5 **Salient Differences Between Categories of Higher Education Institutions Included in Study**

Characteristic	4-Year Colleges	Comprehensive Universities	Research Universities	For-Profit Institutions
Private/Public	Private	Private & Public	Private & Public	Private
# of Institutions in the U.S.	~1,000	~700	~200	~1,300
Student Body	Undergraduate & Some Vocational	Undergraduate, Graduate, & Professional	Undergraduate, Graduate & Professional	Undergraduate, Graduate, Professional, & Vocational
FT/PT Students	FT	FT & PT	FT & PT	FT & PT
Residential	Yes	Some	Some	No
On-Campus/ Online Offerings	On Campus	On-Campus & Some Online	On-Campus, some Online	Online, and some on-campus (e.g. culinary schools)
Sponsored Research	Minimal	Modest	Most	None
Donors	Yes	Yes	Yes	No
Comprised of Schools/Colleges	No	Yes	Yes	Yes
Athletic Programs	Yes	Yes	Yes	No
Student Clubs & Organizations	Yes	Yes	Yes	No

are online. Hence, the presidents of the private four-year colleges tend to directly interact and personally engage face-to-face with more stakeholders and on a more frequent and repeated basis than the presidents at research and comprehensive and universities and those for-profit institutions whose offerings are online.

5. Demographic Homogeneity of College and University Presidents: Age, Gender, Education

The college and university presidents study sample and population are generally demographically similar and homogenous. However, the data show that in three key aspects the college and university presidents differ substantially from the more diverse general population (normative group) and total general population. The areas of difference are age distribution, gender distribution, and level of education. Following are the findings and interpretations.

Age

Age is one aspect in which the demographic data from this study underscored that the college and university presidents differ from the general population. The study sample and population (American Council on Education, 2017) of college and university presidents are similar in age distribution:

- All of the college and university president were more than 39 years of age;
- Half of the college and university presidents were 60 years of age or older; and,

- More than a third of the presidents were between 50-60 years of age.

In contrast, the mean age of the general population (normative group) was 29.65 years with a distribution range of 15.7-77 years (Petrides, 2009b). Additionally, within the total general population (U.S. Census Bureau, 2017), approximately 14% of the population is between 50 and 59 years of age, while more than a third of the college presidents in both the study sample and population were in this age range. Further, approximately 22% of the total general population are 60 years of age or older, while approximately half of college and university presidents are in this age range. Thus, both the study sample and population of college and university presidents are substantially older subgroups of the total general population.

Emotional intelligence has been empirically evinced to naturally develop with age (Bar-On, 1997b; Mayer, Caruso, & Salovey, 1999; Van Rooy & Viswesvaran, 2007). The study sample and population of college and university presidents are both substantially older subgroups of the general population. Hence, it may be inferred that the presidents' higher trait emotional intelligence mean scores—in comparison to the general population (normative group)—are in part attributable to the older ages of the college and university presidents.

Gender

Gender distribution is a second demographic aspect in which college and university presidents differs substantially from the general population, as presented in Table 5.6.

Table 5.6 **Gender Differences**

	COLLEGE &UNIVERSITY PRESIDENTS		GENERAL POPULATION	
GENDER	**Study Sample**	**Population**	**Normative Group**	**Population**
Male	71%	70%	44%	49%
Female	29%	30%	53%	51%
Other/Not Reported	0%	0%	3%	0%

Note. Gender information for college and university president population is from American Council on Education (2018); general population normative group information is from Petrides (2009b); and information about the total general population group is from the U.S. Census Bureau (Ryan & Bauman, 2016).

Both the study sample and the population of college and university presidents (American Council on Education, 2018) have substantially higher percentages of males (71% and 70% respectively) than females. In contrast, the general population (normative group) and the total population have similar and more even gender distributions.

In the scholarly literature, research studies have generated mixed findings about gender and emotional intelligence. Covino (2013), using the MSCEIT (Mayer & Salovey, 1990) instrument, found the overall level of emotional intelligence was significantly higher for females than males, though no significant gender differences for any of the MSCEIT subscales were found and gender did not predict emotional intelligence.

Bar-On (2006) reported that in multiple studies using his EQ-i measurement, no differences were found between males and females regarding overall emotional intelligence. However, Pudjiati (1998) found females to have higher scores than males on all of the EQ-I subscales and in total. Bar-On did report that "females appear to have stronger interpersonal skills than males" (p. 16) and males appear to "have a higher intrapersonal capacity, are better at managing emotions and are more adaptable" (p. 16). Also using Bar-On's EQ-i measurement, Mandell and Pherwani (2003) found the mean emotional intelligence score for females was higher than for males.

Brackett and Mayer (2003a) conducted a study with a single sample and three competing instruments—the MSCEIT (Mayer & Salovey, 1990), the EQ-I (Bar-On, 1997), and the SREIT (Schutte et al., 1998)—and "significant gender differences were only found on the MSCEIT" (p. 6) with females scoring higher than males.

Using the Trait Emotional Intelligence Questionnaire (TEIQue) measurement, Petrides and Furnham (2000a) found that males believed they had higher EI, while females rated their own emotional intelligence lower. In a study of 325 resident physicians across three specialties at three large academic institutions, the men and women demonstrated near-identical global trait emotional intelligence scores (McKinley, Petrusa, Fiedeldey-Van Dijk, Mullen, Smink, Scott-Vernaglia, Kent, Black-Schaffer, & Phitayakom, 2014).

In light of the mixed empirical findings regarding gender and emotional intelligence, inferences are not being posited about the college and university presidents' emotional intelligence in connection to gender.

Education

Educational level is a third demographic aspect in which college and university presidents have been found to differ substantially from the general population (normative group) and the total general population. Although the study sample was not asked to identify their level of education, the *American College President Study 2017* reported that nearly 80% of college presidents had advanced degrees (Gagliardi, Espinosa, Turk, &Taylor, 2017). In comparison, 18.9% of the general population (normative group) had "postgraduate" degrees (e.g. master's, doctoral, and professional) (Petrides, 2009b). Further, according to the *Educational Attainment in the United States: 2015* report published by the U.S. Census Bureau (Ryan & Bauman, 2016), just 12% of the American population had "advanced" degrees (e.g. master's, doctoral, and professional)

Regarding emotional intelligence and academic performance, the Perera and DiGiacomo (2013) meta-analysis of "48 independent studies with a cumulative sample size of 10,292" (p. 20) found a positive connection between emotional intelligence and academic performance. Additionally, the Perera and DiGiacomo (2013) findings indicated emotional intelligence may confer an academic performance advantage.

This suggests college and university presidents' advanced level of education may in part be attributed to their higher trait emotional intelligence.

Summary

To summarize, this section reported and interpreted three categories of demographic findings about the college and university presidents in the study sample. Presented first were key characteristics—gender, age, and number of presidency posts held—which were essentially consistent between the college and university presidents study sample and the general population. Second, discussed were two findings about the types of institutions served by the majority of the presidents in the study sample—private not-for-profit institutions and institutions with enrollment of 5,000 or fewer students. Lastly, the relative homogeneity of the study sample and population of college and university presidents was addressed in terms of age distribution, gender distribution, and education, and reported and described were the differences compared to the more diverse general population (normative group) and the total general population. In the next section, the finding that the study achieved a high number of participants is addressed and posited are strategies that are transferable for other studies.

C. High Number of Participants and Transferable Strategies for Other Studies

While the minimum sample size necessary for statistical validity of the study was 34 participants (Appendix B), this study found that a much higher number of college and

university presidents chose to participate. The study sample of 300 college and university presidents was especially large compared to prior studies of emotional intelligence and presidents of higher education institutions (Table 5.7)

Table 5.7 **Sample Size Comparisons**

Study	***[This Study]*** Halbgewachs (2018)	Niculescu-Mihai (2007)	Freed (2016)	Gough (2011)	Snuggs (2006)	Sala (n.d.)
Type	Dissertation	Dissertation	Dissertation	Dissertation	Dissertation	Consultant
Sample Size	300	7	3	47	39	92
Population	College & University Presidents	College & University Presidents	Community College Presidents	Community College Presidents	Community College Presidents	UK College Principals

Numerous strategies and tactics were utilized to obtain the high number of participants for this study. Most importantly, all of the strategies and tactics involved being attentive to the lens of the presidents (e.g. the lens of the population). Following is a description of the strategies and tactics engaged for this dissertation study in order to achieve the participation of 300 college and university presidents.

1. Frame communication to participants' perspective

The first strategy was to frame all communications to the prospective and participating presidents around their perspective, not just the perspective of the researcher. The first tactic of this strategy was that the initial recruitment email utilized the pronouns "you" and "your" eleven (11) times while not once utilizing "I," "me," or "my" (referring to the researcher). Another tactic was that all of the emails to the presidents began with a personalized salutation (e.g. Dear President

Last Name). This demonstrated to the presidents that they were paramount and specifically selected to participate. A third tactic was the recruitment emails articulately and concisely identified an incentive for presidents to participate. The primary incentive for this study was that presidents could opt-in to receive a confidential report of their individual emotional intelligence trait scores and the aggregated scores of their peers (e.g. the collective of college and university presidents) participating in the study. Fourth, the timing, subject line, length, and wording of the communications were framed to the presidents' perspective to show the presidents that the researcher: a) recognized the volume of emails they receive, b) understood their calendars are usually tightly scheduled, and c) respected and valued their time. For example, the recruitment email stated the survey would take less than five minutes to complete and could be completed on a computer or mobile device. A hyperlink to the survey was embedded in the email for the participants' convenience. The value of framing the recruitment emails to the participants' perspective was acknowledged by a president participating in the study who personally emailed the researcher and wrote: "I get lots of requests for surveys and your email and survey was put together so well" (2017).

2. Consider study/survey introduction and consent information statement from participants' points of view

The second strategy was to consider the study/survey introduction and consent information statement from the participants' points of view, not only those of the researcher and researcher's institutional research review board (IRB). The first tactic supporting this strategy was that the study/survey introduction and

consent information statement concisely stated the benefits of participating in the study to make clear why a prospective participant should want to be part of the study. With this study, for example, in addition to their individual emotional intelligence reports, the additional benefits included: a) potential insight into their individual emotional intelligence as well as the collective of college and university presidents (their peers) participating in the study; b) an opportunity for individual and collective self-reflections; and, c) perhaps informing how some presidents perceive and respond to situations and opportunities for the future. A second tactic was the consent information statement addressed why emotional intelligence is an important topic for college and university presidents. A third tactic was the consent information statement explained that the participating presidents had an opportunity to contribute to the body of knowledge about their profession, leadership, and emotional intelligence. Through these three tactics, the study/survey introduction and information consent form were written in part to connect with the points of view of the prospective participants.

3. Design data collection process to align with characteristics and perspectives of study sample

The third strategy was to design the data collection process to align with key characteristics and the perspectives of the college and university presidents (e.g. the study sample). For this study, utilizing an online survey approach was a strong fit for the study saample of college and university presidents, and contributed to obtaining the large study sample. Utilizing an online survey approach allowed the participants to complete the survey at a time that was

convenient for them (Dillman et al, 2014), which was helpful since college and university presidents' usually have very tight schedules. Also, this approach permitted participants to complete the survey on a computer or mobile device; and to start, stop, and return to the survey at their convenience. Additionally, administering the survey online provided participants the opportunity to complete the survey at their leisure when they had time for thoughtful answers (Fowler, 2014). Further, the online survey approach resonates with those who are well-educated (Fowler, 2014). College and university presidents are well educated. The *American College President Study 2017* reported that 79.5% of the presidents had an earned PhD or EdD (Gagliardi, Espinosa, Turk, &Taylor, 2017). These are examples of how the data collection process was designed to align with key characteristics and the perspectives of the study sample.

4. Compare measurement/instrument options through study sample lens

The fourth strategy was to look at and compare the potential measurements/instruments through the lens of the college and university presidents (study sample). For this study the TEIQue-SF instrument was selected, in part, for its strong fit with the study sample. First, the TEIQue-SF and the demographic questionnaire could be completed together in less than five minutes on a computer or mobile device, making the survey convenient for the presidents to complete. Second, the instrument is a self-report measure. This was important as the researcher anticipated many presidents were unlikely to have direct reports complete a 360-review assessment of the president's emotional intelligence. Third, the visual look and layout of the online (SurveyMonkey) data collection

instrument (which included both the TEIQue-SF and the demographic questionnaire) was clean and the instructions were clear and succinct. This was confirmed by a president who participated in the study and personally emailed the researcher, stating: "It was as you promised (five minutes), your instructions were very clear and the repeated breaks in the survey as well as the repeated instructions made the survey very easy to complete" (2017).

5. Look at data collection, handling, reporting, and storage through study population lens

The final strategy occurred during the planning, communicating, and executing of the data collection, handling, reporting, and storage processes and procedures for the study. These activities were considered, in part, through the lens of the study population. For example, the researcher explicitly and repeatedly informed the prospective participants that every effort would be made to keep their participation and survey responses confidential. The recruitment emails, the introduction to the survey, and the consent information statement each contained this information. This underscored to the prospective and participating presidents that the researcher understood the personal and potentially sensitive nature of the information the they would be sharing as study participants.

Summary

Collectively these five strategies and their supporting tactics contributed to the successful recruitment of a large sample of college and university presidents for this study. These strategies and tactics are transferable, and thus have potential implications for future research studies. That is, these strategies and

tactics may be implemented by other researchers for future studies—especially dissertation research—and utilized with other study populations.

Summary of Findings and Interpretations

This research study generated a range of findings. In this section, findings and interpretations about the trait emotional intelligence scores of the college and university presidents who participated in the study were presented. As part of this, the findings suggested that the majority of the college and university presidents study sample demonstrate leadership effectiveness. The findings also revealed an opportunity to engage a subgroup of college and university presidents, who had lower trait emotional intelligence scores, in personal and/or professional development and learning activities to enhance their trait emotional intelligence and professional performance. Second, findings and interpretations were put forward for the salient demographic characteristics of the college and university presidents study sample, and the institutions where they served. The demographic homogeneity of college and university presidents was also discussed. Third, while the minimum sample size necessary for statistical validity of the study was 34 participants, this study found a much larger sample of 300 college and university presidents chose to participate. The strategies and tactics engaged to achieve this were described. In the next section, the conclusions that emerged from this study are presented.

Conclusions

Five major conclusions emerged from the findings of this study. These conclusions are directly related directly to the research questions: What are the trait emotional intelligence scores of college and university presidents as measured by the

TEIQue-SF? How do the scores for the well-being, self-control, emotionality, and sociability trait emotional intelligence factors and global trait emotional intelligence of college and university presidents differ from the scores of the general population? The conclusions that emerged from the findings of this study are:

1. ***The majority of the population of college and university presidents at Carnegie-classified baccalaureate, master's, and doctoral institutions have high well-being, self-control, emotionality, and sociability trait emotional intelligence and global trait emotional intelligence, as measured by the TEIQue-SF.***

   This conclusion is based on the study findings that showed the majority of the college and university presidents in the study sample had high emotional intelligence scores, as measured by the TEIQue-SF. Further, this generalized conclusion can be inferred since a census strategy and survey methodology were used and there was a large sample of participants (300) from the target population (Fowler, 2014).

2. ***The majority of the population of college and university presidents at Carnegie-classified baccalaureate, master's and doctoral institutions have higher emotional intelligence than the general population, as measured by the TEIQue-SF.***

   This conclusion is based on the study findings that showed the majority of the college and university presidents in the study sample had higher emotional intelligence than the general populations, as measured by the TEIQue-SF. This conclusion can be inferred since a census strategy and

survey methodology were used, there was a large sample of participants (300) from the target population, and there was an established normative group representing the general population (Fowler, 2014.)

3. ***The majority of the population of the college and university presidents at Carnegie-classified baccalaureate, master's and doctoral institutions demonstrate leadership effectiveness in their roles.***

The study findings indicated that the majority of the college and university presidents in the study sample demonstrate leadership effectiveness in their roles. The scholarly literature has shown that high emotional intelligence is positively linked to and predictive of effective leadership (Amram, 2009; Bar-On, 1997; Golden, 2015; Goleman, 1995/2006; Higgs, 2002; May-Vollmar, 2017; Mayer & Salovey, 1995; Rosete, 2007; Rosete & Ciarrochi, 2005).

Thus, this generalized conclusion can be inferred and attributed to the larger population since a census strategy and survey methodology were used, there was a large sample of participants from the target population, and the scholarly empirical literature has shown that high emotional intelligence is predictive of effective leadership (Rosete & Ciarrochi, 2005).

4. ***The majority of college and university presidents are well-positioned to build real social fabric within the college/university and between the college/university and those it serves.***

Emotional intelligence is core to the connection with followers, particularly in providing inspiration and a sense of meaning, identity, and

commitment to followers; building and sustaining interpersonal relationships; and, investing follower outcomes such as citizenship behaviors, performance, and satisfaction (Ashkanasy &Humphrey, 2011; Gooty, Connelly, Griffith, & Gupta, 2010; Humphrey, Pollack, & Hawver, 2008; Little, Gooty, & Williams, 2016; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003; Walter, Cole, & Humphrey, 2011). Emotionally intelligent leaders provide an impetus for people to individually and collectively perform and to engage in trusting, collaborative relationships (Bharwaney, Bar-On, MacKinlay, 2011; George, 2000; Johnson, Aiken, & Steggerda, 2005; Sosik & Megerian, 1999; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003a).

Thus, this generalized conclusion can be inferred and attributed to the larger population since a census strategy and survey methodology were used, there was a large sample of participants from the target population, and "People high in EI will build real social fabric within an organization" (Mayer & Caruso, 2002, p. 4; Bar-On & Parker, 2000; Goleman, 1998; Goleman & Boyatzis, & McKee, 2002; Petrides, Mikolajczak, Mavroveli, Furnham, Pérez-González, 2016).

5. ***There are opportunities to enhance the trait emotional intelligence and leadership effectiveness of a subgroup of the population of college and university presidents***.

The study found a subgroup of college and university presidents in the study sample had lower trait emotional intelligence scores across the four factors and global trait than the mean scores of the general population

(normative group). This finding indicated these presidents had lower self-perceptions of their emotional intelligence. Central to trait emotional intelligence is the concept of self-efficacy, (Bandura, 1997; Petrides, 2009b). According to Bandura (1997), "people's beliefs about their personal efficacy constitute a major aspect of their self-knowledge" (p. 79) and "perceived self-efficacy influences performance" (p. 194).

The findings about this subgroup of the study sample revealed an opportunity for improvement—and opportunity to engage the subgroup of college and university presidents in personal/professional development and learning activities to enhance their trait emotional intelligence and perceived self-efficacy. The theoretical and empirical literature have shown "it is both important and possible to educate people to be emotionally intelligent" (Bar-On, 2007, p. 11; Goleman, 1998; Petrides, 2017; Rude, 2013). Further, the meta-analysis conducted by Joseph, Jin, Newman, and O'Boyle (2015) showed that emotional intelligence is "one of the strongest known personality-based predictors of job performance" (p. 318).

Hence, this generalized conclusion can be inferred and attributed to the larger population since a census strategy and survey methodology were used, there was a large sample of participants from the target population, and the scholarly empirical literature has shown that people can enhance their trait emotional intelligence, and thus their professional performance and leadership effectiveness.

Implications for Theory and Practice

This study provides foundational new knowledge that contributes to both theory and practice. From the findings and conclusions of this research, there are implications and opportunities to elucidate and expand both theoretical and practical understanding and knowledge about emotional intelligence and leadership. To facilitate the potential contributions of this study, efforts will be made to publish and present the findings of this study in various forums to reach the myriad pertinent audiences.

Slate of Implications for Theory

The foundational implications for theory based on the findings and conclusions of this research study include the following:

1. ***Authentic Leadership Theory***

   The literature has shown emotional intelligence and authentic leadership have a statistically significant relationship (Jasso, 2016; Kiyani, Saher, Saleem, & Iqubal, 2013; Rodriguez, 2016) and are theoretically similar (Avolio & Gardner, 2005; Bar-On, 1997; Eagly, 2005; Gardner et al., 2005George, 2003; Goleman, 1995/2006; Northouse, 2010; Petrides, 2009; Salovey & Mayer, 1990, Shamir & Eilam, 2005; Walumbwa et al., 2008; Yukl, 1998/2013). The present study has shown that the majority of college and university presidents have high emotional intelligence. Thus, this population of college and university presidents and the findings about their trait emotional intelligence may inform and shape the theoretical understanding of and knowledge about authentic leadership, especially for the population of college and university presidents.

2. *Charismatic Leadership Theory*

There are multiple theoretical frameworks for charismatic leadership (Jung & Sosik, 2006; Northouse, 2010; Yukl, 1998/2013) which engage different points of view (e.g. Conger & Kanungo, 1998; House, 1977; Shamir, House, & Arthur; 1993). The literature has suggested charismatic leadership is inherently emotional (Schilling, 2010; Walter &Bruch, 2007; Wasilewski, 1985) and that "leaders' emotional intelligence constitutes a crucial prerequisite for the performance of charismatic leadership behaviors" (Walter & Bruch, 2007, p. 73). The present study has shown that the majority of college and university presidents have high trait emotional intelligence. Thus, this population of college and university presidents and the findings about their trait emotional intelligence may inform and shape the theoretical understanding of and knowledge about charismatic leadership, particularly in the population of college and university presidents.

3. *Full Range of Leadership Theory*

There has been extensive research about the Full Range of Leadership model (Bass & Avolio, 1994). The research has engaged various groups of managers and leaders—see Table 2.7 and the Harms & Credé (2010) meta-analysis. The results about the connection between emotional intelligence and transformational leadership have been mixed. Collectively, the conceptual and empirical literature suggests there is a connection between transformational leadership and emotional intelligence as an array of dispositions, self-perceptions, or traits. The present study found that the

majority of college and university presidents have high trait emotional intelligence (emotional intelligence self-efficacy). Thus, this population of college and university presidents and the findings about their trait emotional intelligence may inform the theory and expand the knowledge about the Full Range of Leadership (transformational, transactional, and laissez faire leadership), especially in the population of college and university presidents.

4. Leadership Effectiveness Theory

In the scholarly literature, emotional intelligence has been conceptually and empirically linked to leadership effectiveness. Some scholars contend that emotional intelligence is a foundational element of leadership effectiveness (Goleman, 1995/2006; Goleman, Boyatzis, McKee, 2002; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003a). Other scholars view emotional intelligence as having an intuitively compelling relationship with leadership effectiveness (Ashkanasy & Tse, 2000; Caruso, Mayer, & Salovey, 2002; Daus, 2006/2013; George, 2000). Further, emotional intelligence has been shown to be predictive of leadership effectiveness (Rosete & Ciarrochi, 2005).

Additionally, there are various models and measurements of leadership effectiveness. These include the Five Practices of Exemplary Leadership (Kouzes & Posner, 1987/2017), formal competence assessments from individual organizations, and leadership performance target outcomes identified by a leader's subordinates/superiors, among other models and measurements.

The present study found the majority of college and university presidents have high trait emotional intelligence (emotional intelligence self-efficacy), and thus concluded this majority of college and university presidents demonstrate leadership effectiveness. Hence, this population of college and university presidents, the findings about their trait emotional intelligence, and the conclusion about their leadership effectiveness may provide a foundational springboard to help elucidate the theoretical understanding of the relationship between emotional intelligence and leadership effectiveness.

5. Loosely Coupled Systems Theory

Colleges and universities have long been considered exemplars of loosely coupled systems (Burke, 2011; Orton & Weick, 1990; Weick, 1976). These organizations are decentralized with a relatively flat hierarchy and a "major constituency, the faculty, largely ignoring the 'chain of command'" (Burke, 2011, p. 147). Burke (2011) identified the need "to know much more about how to work with loosely coupled systems" (p. 146). The theory and knowledge about how to lead effectively in loosely coupled systems may be elucidated and enhanced through scholarly work that combines: a) this study's conclusions that the majority of college and university presidents have high trait emotional intelligence and conclusion that this group of college and university presidents demonstrate leadership effectiveness, and b) the extant scholarly literature about leadership effectiveness and loosely coupled systems.

6. Theory about Changing Organizational Culture

Emotional intelligence and leadership have been extensively linked in the theoretical and empirical literature. Further, emotional intelligence has been empirically identified as "a critical component of leadership" (Prati, Douglas, Ferris, Ammeter, Buckley, 2003a, p. 27; Goleman, 1995/2006; 1998a, 1998b, George, 2000; Salovey & Mayer, 1990). Additionally, by its very nature, leadership has been implicitly and inextricably linked to organizational culture (Schein, 1985/2010; Yukl, 1998/2013).

A key function of leadership is influencing and producing adaptive and constructive change (Bennis & Nanus, 1985; Kotter, 1990; Northouse, 1997, 2012; Yukl, 1998, 2013). Effective leaders articulate and influence organizational culture by establishing and reinforcing values, creating symbols, and in other ways (Bensimon, Neumann, & Birnbaum, 1989; Bolman & Deal, 1984; Clark, 1972; Martin, Feldman, Hatch, & Sitkin, 1983; Peters & Waterman, 1982; Schein, 1985, 2010). Further, organizational culture is elusive, affects every aspect of an organization, and is a major influence on organizational effectiveness (Chaffee & Tierney, 1988; Schein, 2010; Tichy, 1983; Tierney, 1990). In connection to organizational culture, "leading change is important and difficult" (Yukl, 1998, 2013, p. 76; Birnbaum, 1989; Burke, 2011; Chaffee & Tierney, 1988). In higher education, "the risks of conflict, stalemate, and inertia are likely to be greater than they are in many other kinds of prominent organizations" (Bok, 2013, p. 26).

Burke (2011), called out the need to know more about how to change organizational culture, especially in loosely coupled systems. Colleges and universities have been identified as exemplars of loosely coupled systems (Burke, 2011; Orton & Weick, 1990; Weick, 1976). Thus, the findings and conclusions of this study about college and university presidents' emotional intelligence and leadership effectiveness provide a foundational springboard for future work to elucidate and enhance the knowledge and understanding about changing organizational culture in loosely coupled systems (e.g. higher education institutions).

7. Theory about Perceived Resistance to Change

Ford, Ford, and D'Amelio (2008) showed that "change agents contribute to the occurrence of resistance through their own actions and inactions and that resistance can be a resource for change" (p. 362). Further, Burke (2011) reported that "communication breakdowns can also contribute to resistance when change agents (a) fail to legitimize change, that is, not to make the case, explain the reasons, show the need adequately; (b) misrepresent the chances of success, for example, change agents attempting to make themselves look good; and (c) resist perceived resistance, that is, to ignore change recipients ideas, proposals, or counteroffers" (p. 157). Additionally, Piderit (2000) reviewed and evaluated research on resistance to change and identified a "failure to take the good intentions of resistors seriously" (p. 792).

Emotional intelligence is about the capacity to accurately perceive, appraise, and manage other's emotions and to better communicate (Bar-On, 1997, 2000; Goleman, 1995/2006, 1998a, 1998b; Mayer & Salovey, 1995; Petrides & Furnham, 2000, 2001, 2003). From the perspective of trait emotional intelligence theory, the emotionality factor describes the extent to which people believe they are in touch with other's emotions and feelings, are empathetic and able to consider the view points of the people with whom they are engaged, and are able to decode other people's emotional expressions (Petrides, 2009b).

Bok (2013) suggested that there is likely to be greater resistance to change in colleges and universities than "in many other kinds of prominent organizations" (p. 26). Thus, the findings of this study about the trait emotional intelligence of college and university presidents and the value of emotional intelligence as a resource may help inform theoretical understanding and knowledge about how to identify and deal more effectively with perceived resistance to change—a need put forward by Burke (2011).

Slate of Implications for Practice

Additionally, from this research study there are implications and opportunities for myriad practitioners. The practitioners include college and university presidents, emerging and incoming college and university presidents, boards of trustees/regents, search firms, higher education associations, consultants, and future researchers, among others. Following is the slate of implications and opportunities for these practitioners:

1. College and University Presidents

Emotional intelligence is resource that can inform and shape perceptions of and responses to future situations and opportunities. "Emotions have the potential to serve as a resource…[and] are part of our added potential to learn as leaders" (Johnson, Aiken, & Steggerda, 2005, p. 248). Also, the scholarly literature has indicated that the higher up a person goes in an organization, the more important emotional intelligence becomes (e.g. Bharwaney, Bar-On, and MacKinlay, 2011; Dulewicz & Higgs, 2003; Dulewicz, Young, Dulewicz; Goleman, Boyatzis, and McKee; Siegling, Nielson, & Petrides). The literature has shown that in leadership positions, emotional intelligence makes a greater contribution to overall performance and effectiveness than general intelligence and technical skills (Dulewicz, Young, Dulewicz, 2005; Goleman, Boyatzis, & McKee, 2013; Rosete & Ciarrochi, 2005). Emotional intelligence has been identified as "one of the strongest known personality-based predictors of job performance" (Joseph, Jin, Newman, and O'Boyle (2015, p. 318).

As part of the present study, the participating college and university presidents were offered insights into their emotional intelligence as individuals and as a collective, which provided the presidents with opportunities for individual and collective self-reflection. More than 200 (68%) of the study participants opted in to receive their individual emotional intelligence scores as well as the aggregated mean scores of their peer group (the collective of college and university presidents participating in the study)

and the mean scores of the general population (normative group). Additionally, as evinced by emails the researcher received from some college and university presidents, participating in this study piqued some presidents' interest in emotional intelligence and leadership, leading some presidents to explore the topic emotional intelligence and perhaps even engage her/his team in some manner.

Second, college and university presidents who did not participate in this study may also individually benefit from the study findings and the scholarly literature about emotional intelligence and effective leadership. These presidents could assess their own emotional intelligence, determine their strengths which they could utilize as resources, and identify opportunities for development. College and university presidents with lower trait emotional intelligence can self-identify and pursue personal and professional development and other opportunities to enhance their individual trait emotional intelligence and perceived self-efficacy.

Third, as a collective, college and university presidents may proactively engage in small group dialogues or larger group encounters to share and discuss experiences, perspectives, and thoughts about emotional intelligence and engagements and outcomes with various constituencies and/or around particular external and/or internal factors. This would provide forums for enhancing individual emotional intelligence, as well as sharing insights that could benefit the collective regarding strategies to particular external and internal factors, communicating with constituencies, and/or

opportunities for improvement. For example, emotional intelligence can help to identify and deal more effectively with perceived resistance to change—emotional intelligence involves the capacity to accurately perceive, appraise, and manage others' emotions and to better communicate (Bar-On, 1997, 2000; Goleman, 1995/2006, 1998a, 1998b; Mayer & Salovey, 1995; Petrides & Furnham, 2000, 2001, 2003). College and university presidents could share and discuss experiences about how they anticipated, interpreted, managed, and/or responded to a situation of perceived resistance from a particular constituency (such as faculty, deans, or students) and the outcomes of that engagement.

Fourth, college and university presidents may foster a culture—within their senior leadership team and/or across the larger enterprise—that values and promotes emotional intelligence. The literature has shown emotional intelligence is core to connecting with followers, particularly in providing inspiration and a sense of meaning, identity, and commitment to followers; building and sustaining interpersonal relationships; and, investing in follower outcomes such as citizenship behaviors, performance, and satisfaction (Ashkanasy &Humphrey, 2011; Gooty, Connelly, Griffith, & Gupta, 2010; Humphrey, Pollack, & Hawver, 2008; Little, Gooty, & Williams, 2016; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003; Walter, Cole, & Humphrey, 2011). Emotionally intelligent leaders provide an impetus for people to individually and collectively perform and to engage in trusting, collaborative relationships; (Bharwaney, Bar-On, MacKinlay, 2011; George, 2000;

Johnson, Aiken, & Steggerda, 2005; Sosik & Megerian, 1999; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003a).

Further, a college/university president's high trait emotional intelligence supports the transformational leadership processes of idealized influence, inspirational motivation, and individualized consideration—as scholarly research has evinced that high trait intelligence is connected to these three key aspects of transformational leadership (Barling, Slater, Kelloway, 2000). Further, the scholarly literature has indicated that self-awareness, transparency, empathy, and expressive language and non-verbal clues, among other factors, are associated with idealized influence and inspirational motivation leadership behaviors (Bennis, 1989; Frankel, 1992; Goleman, Boyatzis, & McKee, 2002; Sosik & Megerian). Explicitly knowing about the impactful value of these factors could be helpful to college and university presidents.

2. Emerging and Incoming College and University Presidents

It will be helpful for emerging and incoming college and university presidents to know about their individual level of emotional intelligence, the value of emotional intelligence as a resource, and the importance of emotional intelligence for the presidency role in higher education. Emerging and incoming college and university presidents could find it beneficial to enhance their emotional intelligence. It could be beneficial for the presidents professionally and personally, as well as for the colleges and universities they will serve. Emotional intelligence has been identified as "one of the strongest

known personality-based predictors of job performance" (Joseph, Jin, Newman, and O'Boyle (2015, p. 318) and in leadership positions, emotional intelligence makes a greater contribution to overall performance and effectiveness than general intelligence and technical skills (Dulewicz, Young, Dulewicz, 2005; Goleman, Boyatzis, & McKee, 2013; Rosete & Ciarrochi, 2005).

3. Boards of Trustees/Regents

According to Borenstein (2015), "high-functioning boards collaborate with their presidents…to build the social capital necessary to move the institution forward. A president with emotional intelligence is a vital element in that endeavor" (p. 5). The present study shows boards of trustees/regents that the majority of college and university presidents have high trait emotional intelligence.

Second, the study found a small subgroup of presidents had lower trait emotional intelligence. It may be beneficial for the boards at those same institutions to invest in enhancing the emotional intelligence of their respective president. There has already been a substantial investment (sunk cost) of time and financial funds, among other resources, to recruit and bring the president into the institution. The cost of searching for and recruiting a new president may be higher—in myriad ways, such as financial, time, morale among college/university constituents, institutional reputation, strategic planning and implementation, fundraising, and the recruitment of top faculty,

among others—than investing in the enhancement of the current president's emotional intelligence.

Third, members of boards of trustees/regents have a range of backgrounds, including professionals with various areas of expertise (e.g. financial, legal, medical, etc.), alumni, donors, civic leaders, academics, and perhaps students, among others. In light of this and given the vital leadership role of the board in the governing of the college/university, it may be beneficial for the board to assess and perhaps enhance its own collective emotional intelligence, as well. As asserted by Borenstein (2015), it is the effective collaboration of "high-functioning boards" (p. 5) and presidents that move institutions forward.

Further, Cooper and Sawaf (1997) asserted that emotional intelligence offers an energy that "is a primary source of influence and power" (p. xxvii) and emotional intelligence has been evinced to be connected to and predictive of effective leadership (Amram, 2009; Golden, 2015; Goleman, 1995/2006; Goleman, Boyatzis, & McKee, 2002; Dulewicz & Higgs, 2003; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003a; Rosete, 2007; Rosete & Ciarrochi, 2005; May-Vollmar, 2017). Additionally, in a study with a large sample of board directors, Dulewicz and Higgs (2003) found emotional intelligence was "considered to be extremely important" (p. 193), and the higher up in an organization one goes, the more important emotional intelligence becomes (Dulewicz & Higgs, 2003; Dulewicz, Young, & Dulewicz, 2005; Goleman, Boyatzis, & McKee, 2002, 2013).

4. Search Firms

The findings and conclusion of this study—that the majority of college and university presidents have a high level of trait emotional intelligence—shows search firms that overall they have been successful at identifying and recruiting individuals with high emotional intelligence for college and university presidencies. Second, the study finding that a small subgroup of presidents has lower trait emotional intelligence than the general public underscores that search firms should be mindful of the emotional intelligence of prospective presidential candidates. As asserted by Borenstein (2015), emotional intelligence should be considered as a criterion for prospective college and university president candidates. The scholarly literature has evinced that in leadership positions, emotional intelligence makes a greater contribution to overall performance and effectiveness than general intelligence and technical skills (Dulewicz, Young, Dulewicz, 2005; Goleman, Boyatzis, & McKee, 2013; Rosete & Ciarrochi, 2005) and emotional intelligence is a strong predictor of job performance (Joseph, Jin, Newman, and O'Boyle (2015, p. 318).

5. Higher Education Associations

The study findings that the majority of college and university presidents have high emotional intelligence and a subgroup has lower emotional intelligence than the general population (normative group) provide a springboard for higher education associations. For example, the findings of the study show that self-control and emotionality are key areas of trait

emotional intelligence in which a subgroup of college and university presidents could substantially improve their emotional intelligence. For this subgroup, associations could create and offer targeted professional development sessions. The sessions could address emotional intelligence as a core component of connecting with followers, particularly in providing inspiration and a sense of meaning, identity, and commitment to followers; building and sustaining interpersonal relationships; and, investing in follower outcomes such as citizenship behaviors, performance, and satisfaction (Ashkanasy &Humphrey, 2011; Gooty, Connelly, Griffith, & Gupta, 2010; Humphrey, Pollack, & Hawver, 2008; Little, Gooty, & Williams, 2016; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003; Walter, Cole, & Humphrey, 2011).

There are also professional development opportunities for presidents with high trait emotional intelligence. For example, associations could offer forums for large and small group sharing and discussion of perspectives and experiences—perhaps via case studies—about how emotional intelligence was successfully engaged with a constituency (or constituencies) in connection to a particular external or internal factor/situation This would provide forums for enhancing individual emotional intelligence, as well as sharing insights that could benefit the collective regarding strategies pertinent to particular external and internal factors, communicating with constituencies, and/or opportunities for improvement. Another example could be a forum about how college and university presidents are fostering cultures—within their senior

leadership teams and/or across the larger college/university enterprise—that value and promote emotional intelligence.

As articulated by Johnson, Aiken, & Steggerda (2005, p. 248), "emotions have the potential to serve as a resource…[and] are part of our added potential to learn as leaders." Further, the scholarly literature has shown "it is both important and possible to educate people to be emotionally intelligent" (Bar-On, 2007, p. 11; Goleman, 1998; Petrides, 2017; Rude, 2013). Providing emotional intelligence development opportunities for college and university presidents is an opportunity for higher education associations to strengthen the leadership capacity and effectiveness of this constituency.

6. Consultants

Consultants are often engaged by presidents and/or boards to develop and help execute strategies to address specific matters —such as public support, diversity and inclusion, constrained funding, academic programs, technology, fundraising, shared governance, faculty tenure, communication, and enrollment, among others. As consultants assess the situation/opportunity and craft strategies, the emotional intelligence of the associated leader(s) should be considered and addressed as a resource—as either a strength to be engaged and leveraged or as an opportunity for improvement. This study can help identify the factors and characteristics of trait emotional intelligence for consultants to consider.

For example, Burke (2011) articulated that "communication breakdowns can…contribute to resistance when change agents (a) fail to legitimize change, that is, not to make the case, explain the reasons, show the need adequately; (b) misrepresent the chances of success, for example, change agents attempting to make themselves look good; and (c) resist perceived resistance, that is, to ignore change recipients ideas, proposals, or counteroffers" (p. 157). Further, Piderit (2000) reviewed and evaluated research on resistance to change and identified a "failure to take the good intentions of resistors seriously" (p. 792). Emotional intelligence is about the capacity to accurately perceive, appraise, and manage other's emotions and to better communicate (Bar-On, 1997, 2000; Goleman, 1995/2006, 1998a, 1998b; Mayer & Salovey, 1995; Petrides & Furnham, 2000, 2001, 2003). The emotionality factor in the trait emotional intelligence is particularly pertinent when thinking and strategizing about an organizational change and potential resistance. The emotionality factor encompasses the capacity to consider the viewpoints of others, to listen to and decode other people's emotional expressions, and effectively communicating and engaging in negotiations (Petrides, 2009b). As articulated by Rude (2013, p. 151), "leaders need to understand the emotions and their meaning as assigned by stakeholders, to use emotions in rational-based decision making; and to be attuned to emotional expressions during public activities (Vigoda-Gadot & Meisler, 2010)." Consultants can underscore the importance of doing this, and identify

strategies to leverage strengths and opportunities as well as to minimize weakness and challenges.

7. Future Researchers

The present study achieved a large study sample. Future researchers—especially those conducting dissertation research—will find the strategies and tactics that contributed to the successful recruitment of the large sample of this study are transferable to many other studies and populations. The strategies are:

- Frame communication to participants' perspective;
- Consider study/survey introduction and consent information statement from participants' points of view;
- Design data collection process to align with characteristics and perspectives of study sample;
- Compare measurement/instrument options through study sample lens; and,
- Look at data collection, handling, reporting, and storage through study population lens.

Tactics and examples within each strategy are described in the findings and interpretations section of this chapter. Most importantly, all of the strategies, tactics, and examples emphasize being attentive to the lens of the of the study sample and population.

Recommendations for Future Research

This study has provided a foundational new knowledge about the population of college and university presidents. The study conclusions are that the majority of the population of college and university presidents at Carnegie-classified baccalaureate, master's, and doctoral institutions: a) have high well-being, self-control, emotionality, and sociability trait emotional intelligence and global trait emotional intelligence, as measured by the TEIQue-SF, b) have higher trait emotional intelligence than the general population (normative group), c) demonstrate leadership effectiveness in their roles, and d) are well-positioned to build real social fabric within the college/university and between the college/university and those it serves. Also, there are opportunities to enhance the trait emotional intelligence and leadership effectiveness of a subgroup of the population of college and university presidents. This new knowledge about the population of college and university presidents provides a springboard for engaging the population in future research. Additionally, since these research recommendations all involve college and university presidents, the research would help to expand and enhance the understanding and knowledge in the area of loosely coupled systems, since higher education institutions are considered exemplars of loosely coupled systems (Burke, 2011; Orton & Weick, 1996; Weick, 1976). Some recommendations for future research include:

1. ***Authentic Leadership and Emotional Intelligence in College and University Presidents***

   Conduct a quantitative study utilizing the Authentic Leadership Questionnaire (ALQ) (Walumba, Avolio, Gardner, Wernsing, & Peterson, 2008) and the Trait Emotional Intelligence Questionnaire-Short Form

(TEIQue-SF) (Petrides, 2009b) to identify and describe the connection between authentic leadership and emotional intelligence within the population of college and university presidents at Carnegie-classified baccalaureate, master's, and doctoral institutions. To maximize participation, it could be helpful to conduct the study at a regional or national meeting(s) of college and university presidents.

2. ***Charismatic Leadership and Emotional Intelligence in College and University Presidents***

   Conduct a quantitative study utilizing the Conger-Kanungo Scale (CKS) of charismatic leadership (Conger, Kanungo, Menon, & Mathur, 1997) and the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) (Petrides, 2009b) to identify and describe the connection between charismatic leadership and emotional intelligence within the population of college and university presidents at Carnegie-classified baccalaureate, master's, and doctoral institutions. To maximize participation, it could be helpful to conduct the study at a regional or national meeting(s) of college of and university presidents.

3. ***Full Range of Leadership and Emotional Intelligence in College and University Presidents***

   Conduct a quantitative study utilizing the Multifactor Leadership Questionnaire (MLQ 5X) (Avolio & Bass) and the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) (Petrides, 2009b) to assess the connection between the full range of leadership

(transformational, transactional, and laisses-faire leadership) and emotional intelligence within the population of college and university presidents at Carnegie-classified baccalaureate, master's, and doctoral institutions. To maximize participation, it could be helpful to conduct the study at a regional or national meeting(s) of college of and university presidents.

4. ***College and University Presidents Emotional Intelligence and Leadership Effectiveness in Achieving Successful Outcomes***

Emotional intelligence has been conceptually and empirically linked to emotional intelligence (Ashkanasy & Tse, 2000; Caruso, Mayer, & Salovey, 2002; Daus, 2006/2013; George, 2002; Goleman, 1998; Goleman, Boyatzis, & McKee, 2002; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003a). Additionally, five studies have engaged college and university presidents to assess their effective leadership practices using the Leadership Practices Inventory (LPI) (Kouzes & Posner, 1987) which operationalizes the Five Practice of Exemplary Leaders model (Kouzes & Posner, 1987). These studies were conducted by Bauer (1993), Brown (1997), Grafton (2009), Hempowicz (2010), and O'Dell (2014). The sample sizes and findings of these studies are discussed in the Chapter 2 section on emotional intelligence and leadership effectiveness.

To further elucidate and expand the knowledge in this stream, it is recommended that a qualitative study, such as a case study (studies), be conducted to richly describe the emotional intelligence and effective

leadership of one or more college and/or university president(s) in achieving successful outcomes. This research could involve outcomes related to a single or multiple issue(s), situation(s), external factor(s), and/or internal factor(s), and/or involve multiple presidents. Such a study would provide rich description, and thus deeper understanding, about the connection between emotional intelligence and leadership effectiveness of college and university presidents.

5. ***Changing Organizational Culture and Emotional Intelligence of College and University Presidents***

It would be helpful to have an enhanced understanding and knowledge about the relationship between college and university presidents' emotional intelligence, constituents' sensemaking (Weick, 1995) and symbolization (Hatch, 1993), and the changing of organizational culture. Study of the phenomenon/phenomena could be approached in various ways (Ouchi & Wilkins, 1985).

A qualitative approach would provide rich and thick descriptions (Geertz, 1973). An ethnographic study design could describe and interpret the organizational culture change from an immersive view (Creswell, 1996/2014; Ouchi & Wilkins, 1985). Such a study would collect primarily observational and interview data (Creswell, 1996/2014; Ouchi & Wilkins, 1985). A phenomenological study design could seek to understand the essence of the president's/presidents' emotional intelligence in relationship to the organizational culture change as

described by the participants (Creswell, 1996/2014). Such a study would identify patterns, themes, and relationships of meaning (Creswell, 1996/2014; Moustakas, 1994). A semiotic study design could explore the phenomenon/phenomena with an emphasis on language and symbolism (Ouchi & Wilkins, 1985). Also, a case study design could explore the process of the organizational culture change(s) bounded by time and activity (Creswell, 1996/2014).

Alternatively, a quantitative approach could provide correlational, causational, and/or descriptive information (Ouchi & Wilkins 1985). Potential data collection instruments include the Organizational Culture Inventory (OCI) (Cooke & Lafferty, 1987; Cooke & Szumal, 2000) or the Organizational Culture Assessment Instrument (Cameron & Quinn, 1999/2011). For correlational and causation findings, the emotional intelligence of the participating college/university president(s) could be measured using one of the Trait Emotional Intelligence Questionnaires (TEIQue) (Petrides, 2009b).

6. Efficacy of Emotional Intelligence Development

To elucidate and enhance the understanding and knowledge about strengthening emotional intelligence in adult populations, a study to assess and describe the efficacy of emotional intelligence development activities, curriculum, experiences, programs, and/or outcomes with a sample of college and/or university presidents could be helpful. This could involve pre- and post-test trait emotional intelligence measurements using one the

Trait Emotional Intelligence Questionnaires (TEIQue) (Petrides, 2009b), among other approaches.

7. ***Enhanced understanding and knowledge of college and university presidents' trait emotional intelligence***

   Use one of the Trait Emotional Intelligence Questionnaire (TEIQue) (Petrides, 2009b) instruments to conduct a comparative study, such as:

   a. Community college presidents compared to presidents at four-year colleges, comprehensive universities, and/research universities;
   b. Presidents at Carnegie-classified baccalaureate colleges with less than 5,000 students compared to presidents at master's and doctoral institutions with 5,000 or more students;
   c. Comparison of college/university presidents' emotional intelligence with other executive and senior leaders, such as provosts, deans, CEOs at for-profit higher educational institutions, CEOs at professional business or industry organizations.
   d. College presidents compared to a general population normative group with similar age and education levels;
   e. College presidents compared to faculty members across a range of academic disciplines;
   f. Comparison of presidents' emotional intelligence based on demographic characteristics, such as career pathway (e.g. academic vs. nonacademic), gender, number of presidency posts, and/or type of institution, among other characteristics; and,

g. Compare the emotional intelligence scoring/themes/capacities of college/university presidents using a TEIQue instrument and another instrument such as a Mayer-Salovey Emotional Intelligence Test (MSCEIT) instrument, Bar-On Emotional Quotient Inventory (EQ-i) instrument, Emotional Competence Inventory (ECI) instrument associated with Goleman's theory, or one of the many other emotional intelligence measure instruments.

The findings and conclusions of the current study provide foundational information and a spring board for future research. The studies recommended above are robust research opportunities to help expand and enhance the understanding and knowledge about college and university presidents' emotional intelligence, leadership approaches, leadership effectiveness, and other important topics in higher education and institutions that are loosely coupled systems.

Chapter Summary

The central research question of this foundational quantitative research study was, What are the emotional intelligence traits of college and university presidents? The study was grounded in the functionalist paradigm, and the conceptual framework guiding the research engaged the constructs of emotional intelligence and leadership. Using a census strategy and survey research design, 300 college and university presidents at Carnegie-classified baccalaureate, master's, and doctoral institutions completed the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF). The study identified and described the trait emotional intelligence of college and university presidents and compared the presidents' trait emotional intelligence with the general population

(normative group). The study findings were reported, interpreted, and grouped into three categories: 1) trait emotional intelligence of college and university presidents, 2) demographic characteristics of the college and university presidents sample, and 3) the high number of study participants and transferable strategies for other studies and populations. The findings about the emotional intelligence of the study sample of college and university presidents were generalizable since a survey methodology and census strategy were used, and there was a large sample of participants from the target population (Fowler, 2014). Five conclusions were inferred from study findings:

1. The majority of the population of college and university presidents at Carnegie-classified baccalaureate, master's, and doctoral institutions have high well-being, self-control, emotionality, and sociability trait emotional intelligence and global trait emotional intelligence, as measured by the TEIQue-SF;
2. The majority of the population of college and university presidents at Carnegie-classified baccalaureate, master's and doctoral institutions have higher trait emotional intelligence than the general population;
3. The majority of the population of the college and university presidents at Carnegie-classified baccalaureate, master's and doctoral institutions demonstrate leadership effectiveness in their roles;
4. The majority of college and university presidents are well-positioned to build real social fabric within the college/university and between the college/university and those it serves; and,

5. There are opportunities to enhance the trait emotional intelligence and leadership effectiveness of a subgroup of the population of college and university presidents.

Additionally, there was a large sample of participants (300). The strategies utilized to achieve this are transferable to future research studies—especially dissertation research—and other populations.

Implications for theory were identified and discussed, and included the areas of authentic leadership, charismatic leadership, full range of leadership, leadership effectiveness, loosely coupled systems, changing organizational culture, and perceived resistance to change. Additionally, implication for practitioners were identified and described, and included college and university presidents, emerging and incoming college and university presidents, boards of trustees/regents, search firms, higher education associations, consultants, and future researchers. Finally, recommendations for robust future research, engaging both qualitative and quantitative methodologies, were put forward.

A core function of leadership is influencing and producing adaptive and constructive change (Bennis & Nanus, 1985; Kotter, 1990; Northouse, 1997/2012; and Yukl, 1998/2013). Leaders who can accurately identify and understand others' emotions are better able to grasp followers' needs and problems, and hence, formulate successful emotional responses (e.g. Ashkanasy & Humphrey, 2011; Bharwaney, Bar-On, & MacKinlay, 2011; Caruso, Mayer, & Salovey, 2002; Little, Gooty, & Williams, 2016; Walter, Cole, & Humphrey, 2011). Leaders with high emotional intelligence can generate and maintain follower confidence, cooperation, and trust; provide inspiration

and a sense of meaning; and invest in follower outcomes such as citizenship and performance behaviors (e.g. Ashkanasy & Humphrey, 2011; George, 2000; Gooty, Connelly, Griffith, & Gupta, 2010; Humphrey, Pollack, & Hawver, 2008; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003).

Higher education is an immense sector. College and universities are among our nation's most important social institutions, knowledge generators, and economic drivers (Bok, 2013; Fullan & Scott, 2009; Lane, 2017; Thorp & Goldstein, 2010). Additionally, American higher education has a vital role in helping to reshape our global world (Thorp & Goldstein, 2010). Big ideas are surfaced, explored, and then translated into reality by colleges and universities, "attacking the world's biggest problems—problems such as hunger, the shortage of water, climate change, and inequality" (Thorp & Goldstein 2010, p. 2).

Leading a college or university is a challenging and multi-faceted endeavor, and is more important than ever (Box, 2013; Gagliardi, Espinosa, Turk, & Taylor, 2017; Jaschik & Lederman, 2017; Ruben, De Lisi, & Gigliotti, 2017). Being skillful in conversations; knowing how to listen and be responsive to people; being able to positively engage with many diverse stakeholder groups and constituents; having the ability to inspire as well as calm others down; and, building and maintaining cooperation and trust all require emotional intelligence (e.g. Bar-On, 1997; George, 2000; Goleman, 1998; Mayer & Salovey, 1990, 1993; Petrides, 2009b; Petrides & Furnham, 2000, 2004). Emotional intelligence is necessary to influence people and develop cooperative relationships, create social networks, facilitate teamwork, constructively resolve conflicts, and achieve identified goals (Yukl, 1998/2013). The high trait emotional intelligence of

the majority of college and university presidents indicates that as a collective the presidents are well-positioned to lead, refine, and revamp the institutions they serve and higher education as a sector to better reflect and support the changing needs, strengths, and opportunities of our society, nation, and world.

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Appendix A. IRB Approval

THE GEORGE WASHINGTON UNIVERSITY

WASHINGTON, DC

Date: December 8, 2017
To: Michael Marquardt, EdD
From: The George Washington University Committee on Human Research, Institutional Review Board (IRB), FWA00005945
Subject: **IRB #111719**, *"A Foundational Descriptive Quantitative Study: The Trait Emotional Intelligence of College and University Presidents"*
Sponsor: **N/A**
Risk Level: **Minimal**
Status: Active

IRB Approval Date: December 6, 2017 **End Approval Date: December 5, 2018**

The George Washington University's Institutional Review Board **fully approved** the above referenced study via expedited review procedure under category # 7 of 45 CFR 46.110. This approval is limited to the activities described in the approved IRB Application and extends to the approved activities at each respective site listed below. Modifications may not be initiated without prior IRB review and approval except where necessary to eliminate apparent immediate hazards to human participants.

The End Approval Date of this research study is the last date any research activities may take place if the study has not been reapproved. If this study is expected to extend beyond one year, please submit a continuing review request 45 days prior to your End Approval Date. HHS regulations at 45 CFR 46.109(e) require that continuing review of research be conducted by the IRB at intervals appropriate to the degree of risk but not less than once per year. The regulations make no provision for any grace period extending the conduct of the research beyond the End Approval Date. Once research activities have been completed, please submit a closure form least 30 days prior to the End Approval Date.

This protocol has been approved for **a maximum number of 1562 subjects** to be enrolled under the auspices of George Washington University. If you wish to increase enrollment beyond this number, you must submit a modification request to the IRB and obtain approval before exceeding this number.

WOD Minimal Risk: The IRB has determined that a waiver of the subjects' signature as documentation of consent for **STUDY POPULATION** is justified under 45 CFR 46.117 (c2) based on the following criteria:

1. The research presents no more than Minimal Risk to subjects.
2. The research involves no procedures for which written consent is normally required outside of the research context.
3. The investigator will provide a written statement regarding the research that embodies the elements of consent.

In conducting this study, you are required to follow the requirements in "INVESTIGATOR GUIDANCE: Investigator Obligations (HRP-800)."

If you have any questions, please do not hesitate to contact the Office of Human Research either by email at ohrirb@gwu.edu or via phone at 202-994-2715.

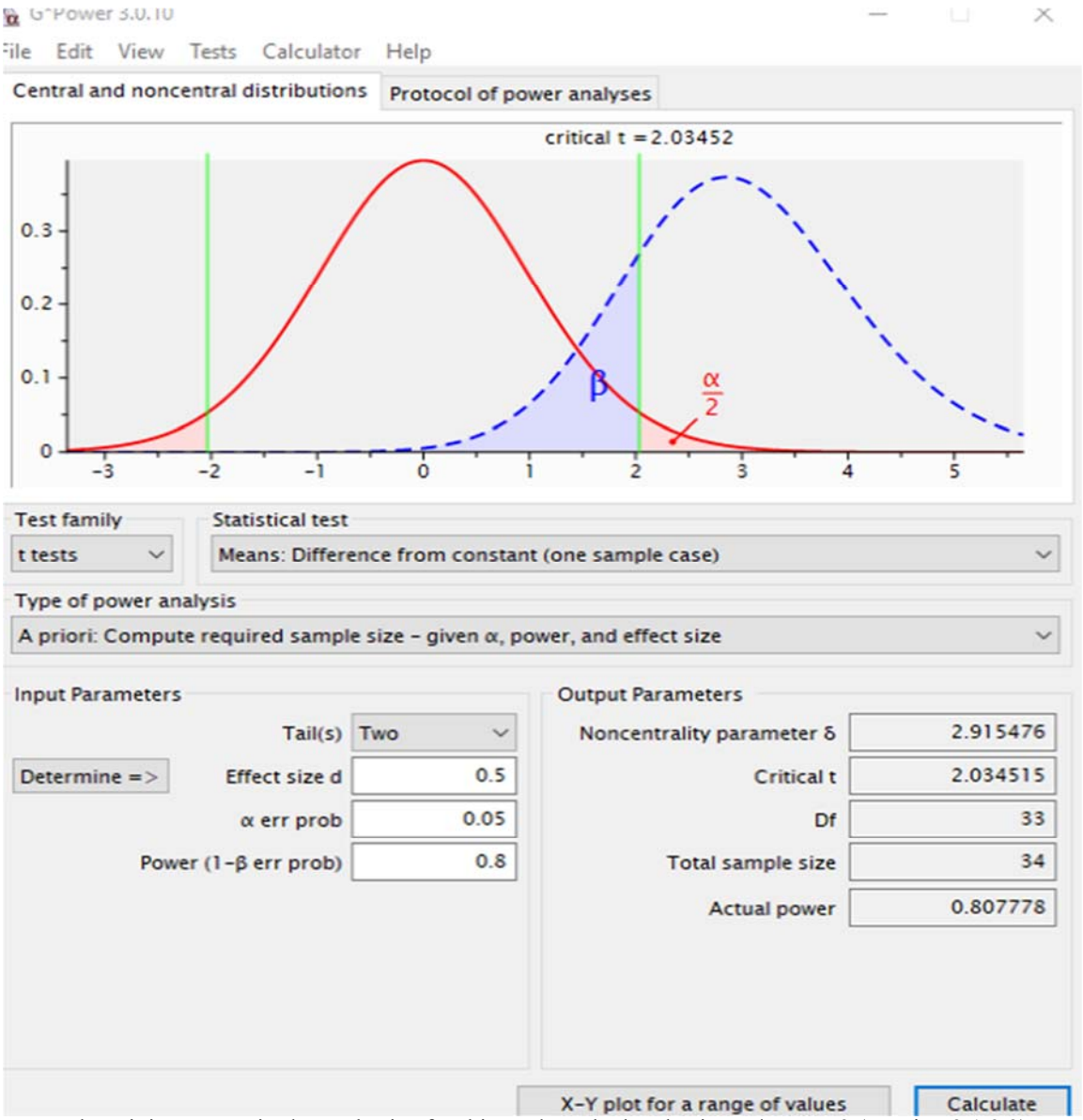
Copies of approved documents are attached and listed below.

1. 111719_30299_Marquardt_Consent Form_08DEC2017
2. 111719_30299_Marquardt_Study Template Emails_08DEC2017

(AL/fpd)

Transaction #30299

Appendix B. A Priori Calculation of Minimum Sample Size for Statistical Validity



Note. The minimum required sample size for this study, calculated using G*Power 3 (Version 3.1.9.2). G*Power3 is a free open-source program for power analysis and sample size calculations. Faul, F., Erdfelder, E., Lang A.G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavioral Research Methods*, 39(2), 175-191. Retrieved from http://www.gpower.hhu.de/en.html

Appendix C: IRT Parameter Estimates (and Standard Errors) for the TEIQue-SF

Items	Item Parameter Estimates						
	α	β_1	β_2	β_3	β_4	β_5	β_6
1. Expressing my emotions with words is not a problem for me.	0.90 (0.08)	−4.46 (0.51)	−2.70 (0.28)	−1.58 (0.18)	−0.78 (0.13)	0.40 (0.10)	1.94 (0.18)
2. I often find it difficult to see things from another person's viewpoint.	0.77 (0.08)	−5.94 (0.87)	−3.87 (0.50)	−2.36 (0.30)	−1.44 (0.21)	−0.24 (0.12)	2.23 (0.24)
3. On the whole, I'm a highly motivated person.	1.32 (0.09)	−4.08 (0.46)	−2.70 (0.23)	−1.74 (0.14)	−0.89 (0.09)	0.03 (0.07)	1.57 (0.11)
4. I usually find it difficult to regulate my emotions.	0.69 (0.08)	−4.78 (0.61)	−2.86 (0.37)	−1.39 (0.22)	−0.25 (0.13)	0.95 (0.14)	3.56 (0.38)
5. I generally don't find life enjoyable.	1.36 (0.11)	−3.21 (0.35)	−2.42 (0.23)	−1.90 (0.17)	−1.34 (0.13)	−0.76 (0.09)	0.58 (0.08)
6. I can deal effectively with people.	1.34 (0.09)	−3.87 (0.42)	−2.69 (0.23)	−1.91 (0.15)	−1.05 (0.10)	0.01 (0.07)	1.91 (0.13)
7. I tend to change my mind frequently.	0.65 (0.08)	−4.76 (0.64)	−2.91 (0.39)	−1.34 (0.22)	−0.06 (0.13)	1.32 (0.18)	4.21 (0.51)
8. Generally, I find it difficult to know exactly what emotion I'm feeling.	1.17 (0.09)	−4.09 (0.45)	−2.56 (0.23)	−1.50 (0.15)	−0.96 (0.11)	−0.14 (0.08)	1.54 (0.13)
9. On the whole, I'm comfortable with the way I look.	1.10 (0.09)	−3.74 (0.39)	−2.33 (0.22)	−1.38 (0.14)	−0.58 (0.10)	0.55 (0.09)	2.48 (0.19)
10. I often find it difficult to stand up for my rights.	0.83 (0.08)	−5.41 (0.70)	−2.98 (0.34)	−1.48 (0.19)	−0.77 (0.14)	0.16 (0.11)	2.22 (0.21)
11. I'm usually able to influence the way other people feel.	0.83 (0.08)	−5.99 (0.79)	−3.19 (0.35)	−1.83 (0.22)	−0.20 (0.11)	1.58 (0.16)	4.34 (0.43)
12. On the whole, I have a gloomy perspective on most things.	1.47 (0.10)	−3.17 (0.30)	−2.26 (0.19)	−1.46 (0.12)	−0.90 (0.09)	−0.33 (0.07)	0.71 (0.07)
13. Those close to me often complain that I don't treat them right.	0.84 (0.08)	−5.02 (0.65)	−3.68 (0.43)	−2.57 (0.29)	−1.67 (0.21)	−0.85 (0.14)	1.29 (0.15)
14. I often find it difficult to adjust my life according to the circumstances.	1.31 (0.09)	−4.22 (0.47)	−2.48 (0.21)	−1.54 (0.13)	−0.85 (0.09)	−0.08 (0.07)	1.50 (0.11)
15. On the whole, I'm able to deal with stress.	1.19 (0.09)	−3.44 (0.34)	−2.24 (0.20)	−1.39 (0.13)	−0.65 (0.09)	0.49 (0.08)	2.46 (0.13)
16. I often find it difficult to show my affection to those close to me.	0.95 (0.09)	−3.78 (0.41)	−2.34 (0.25)	−1.15 (0.15)	−0.62 (0.12)	−0.05 (0.10)	1.31 (0.14)
17. I'm normally able to "get into someone's shoes" and experience their emotions.	0.82 (0.08)	−4.72 (0.60)	−2.93 (0.35)	−1.84 (0.23)	−0.86 (0.15)	0.54 (0.11)	2.88 (0.28)
18. I normally find it difficult to keep myself motivated.	1.37 (0.09)	−3.21 (0.29)	−1.98 (0.16)	−1.23 (0.11)	−0.69 (0.08)	0.07 (0.07)	1.58 (0.11)
19. I'm usually able to find ways to control my emotions when I want to.	0.91 (0.08)	−4.42 (0.49)	−2.85 (0.29)	−1.67 (0.19)	−0.75 (0.12)	0.54 (0.10)	2.63 (0.23)
20. On the whole, I'm pleased with my life.	2.20 (0.12)	−2.85 (0.24)	−2.08 (0.13)	−1.52 (0.09)	−0.95 (0.07)	−0.17 (0.05)	1.11 (0.06)
21. I would describe myself as a good negotiator.	0.98 (0.08)	−4.66 (0.55)	−3.20 (0.32)	−1.88 (0.19)	−0.70 (0.11)	0.82 (0.10)	2.96 (0.25)
22. I tend to get involved in things I later wish I could get out of.	0.70 (0.08)	−4.76 (0.60)	−2.43 (0.31)	−0.86 (0.16)	0.13 (0.12)	1.44 (0.18)	4.17 (0.34)
23. I'm generally aware of my emotions as I experience them.	1.22 (0.09)	−4.50 (0.56)	−2.96 (0.26)	−1.96 (0.17)	−1.02 (0.11)	0.16 (0.08)	1.84 (0.14)
24. Given my circumstances, I feel good about myself.	2.51 (0.13)	−2.56 (0.19)	−1.94 (0.11)	−1.43 (0.08)	−0.85 (0.06)	−0.16 (0.05)	1.12 (0.06)
25. I tend to "back down" even if I know I'm right.	0.61 (0.07)	−6.43 (0.91)	−3.58 (0.47)	−1.83 (0.28)	−0.67 (0.17)	0.53 (0.14)	3.02 (0.32)
26. I don't seem to have any power at all over other people's feelings.	0.99 (0.08)	−4.80 (0.58)	−3.25 (0.34)	−1.96 (0.20)	−0.86 (0.12)	0.38 (0.09)	2.28 (0.19)
27. I generally believe that things will work out fine in my life.	1.62 (0.10)	−3.10 (0.28)	−2.31 (0.17)	−1.62 (0.12)	−0.87 (0.08)	−0.05 (0.06)	1.30 (0.09)
28. I find it difficult to bond well even with those close to me.	1.26 (0.10)	−3.59 (0.36)	−2.46 (0.22)	−1.63 (0.15)	−1.08 (0.11)	−0.50 (0.09)	0.95 (0.09)
29. Generally, I'm able to adapt to new environments.	1.31 (0.09)	−4.04 (0.45)	−2.89 (0.25)	−2.00 (0.16)	−1.33 (0.12)	−0.45 (0.08)	1.35 (0.11)
30. Others admire me for being relaxed.	0.73 (0.08)	−4.19 (0.51)	−2.45 (0.30)	−1.34 (0.19)	0.00 (0.12)	1.34 (0.17)	3.40 (0.36)

Note. IRT = item response theory; TEIQue–SF = Trait Emotional Intelligence Questionnaire–Short Form; α = discrimination parameter; $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$, and β_6 = threshold parameters.

Note. Cooper, A., & Petrides, K.V. (2010). A psychometric analysis of the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) using Item Response Theory. *Journal of Personality Assessment*, 92(5), 449-457. doi: 10.1080/00223897.2010.497426, Retrieved from: http://www.psychometriclab.com/adminsdata/files/JPA%20(2010)%20-%20TEIQue-SF.pdf

Appendix D: Survey Instrument (Word Version)

INTRODUCTION & CONSENT:

Thank you for participating in this dissertation research study. The survey will take about 5 minutes. By completing this survey, you are contributing to the body of knowledge about emotional intelligence and leadership, particularly in the context of higher education.

The survey has 3 sections: (a) optional opt-in to receive a confidential report of your individual emotional intelligence trait scores, the aggregated trait scores of the study group (the collective of your college and university president peers), and the comparative general population (normative group)–you will need your unique identifier number located in the cover email; (b) Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) (Petrides, 2009); and (c) demographic questions.

The purpose of this research is to discover and understand the emotional intelligence of college and university presidents, and this is important new empirical knowledge. Taking part in this entirely voluntary. Refusal to participate will involve no penalty and you may discontinue participation at any time. Minimal risks are associated with this survey, though there is a slight potential for survey responses to be damaging to a participant's reputation. Stringent efforts will be made to keep participants' information confidential.

Benefits to participants include potential insight into one's emotional intelligence as an individual and about the collective of college and university presidents (your peers) participating in the study; an opportunity for individual and collective self-reflections; and perhaps informing how some presidents perceive and respond to situations and opportunities in the future.

Should you have questions or concerns, you may contact me at ronna@gwmail.gwu.edu, the PI at marquard@email.gwu.edu, and/or the IRB at ohrirb@gwu.edu.

Thank you.

SECTION 1: Opt-In to Receive Report(s)

Instructions:
Enter your unique identifier number (located in your cover email). Mark the report(s) you would like to receive. Reports will be sent via email at the end of the study.

My number is: _____

☐ Yes, I would like a confidential report of my trait emotional intelligence scores.
☐ Yes, I would like the study group's aggregated scores.

SECTION 2: TEIQue-SF Questions

Instructions:
Please answer each statement below by marking the number that best reflects your degree of agreement or disagreement with that statement. Do not think to long about the exact meaning of the statements. Work quickly and try to answer as accurately as possible. There are no right or wrong answers. There are seven possible responses to each statement ranging from "Completely Disagree (number 1) to "Completely Agree" (number 7).

1……..…..2……..……3……..……4……5……..……6……..…..7
Completely Disagree — Completely Agree

1. Expressing my emotions with words is not a problem for me.	1	2	3	4	5	6	7
2. I often find it difficult to see things from another person's viewpoint.	1	2	3	4	5	6	7
3. On the whole, I'm a highly motivated person.	1	2	3	4	5	6	7
4. I usually find it difficult to regulate my emotions.	1	2	3	4	5	6	7
5. I generally don't find like enjoyable.	1	2	3	4	5	6	7
6. I can deal effectively with people.	1	2	3	4	5	6	7
7. I tend to change my mind frequently.	1	2	3	4	5	6	7
8. Many times, I can't figure out what emotion I'm feeling.	1	2	3	4	5	6	7
9. I feel that I have a number of good qualities.	1	2	3	4	5	6	7
10. I often find it difficult to stand up for my rights.	1	2	3	4	5	6	7
11. I'm usually able to influence the way other people feel.	1	2	3	4	5	6	7
12. On the whole, I have a gloomy perspective on most things.	1	2	3	4	5	6	7
13. Those close to me often complain that I don't treat them right.	1	2	3	4	5	6	7
14. I often find it difficult to adjust my life according to the circumstances.	1	2	3	4	5	6	7
15. On the whole, I'm able to deal with stress.	1	2	3	4	5	6	7
16. I often find it difficult to show my affection to those close to me.	1	2	3	4	5	6	7
17. I'm normally able to "get into someone's shoes" and experience their emotions.	1	2	3	4	5	6	7
18. I normally find it difficult to keep myself motivated.	1	2	3	4	5	6	7
19. I'm usually able to find ways to control my emotions when I want to.	1	2	3	4	5	6	7
20. On the whole, I'm pleased with my life.	1	2	3	4	5	6	7
21. I would describe myself as a good negotiator.	1	2	3	4	5	6	7
22. I tend to get involved in things I later wish I could get out of.	1	2	3	4	5	6	7
23. I believe I'm full of personal strengths.	1	2	3	4	5	6	7
24. I often pause and think about my feelings.	1	2	3	4	5	6	7
25. I tend to "back down" even if I know I'm right.	1	2	3	4	5	6	7
26. I don't seem to have any power at all over other people's feelings.	1	2	3	4	5	6	7

27. I generally believe that things will work out fine in my life.	1	2	3	4	5	6	7
28. I find it difficult to bond well even with those close to me.	1	2	3	4	5	6	7
29. Generally, I'm able to adapt to new environments.	1	2	3	4	5	6	7
30. Others admire me for being relaxed.							

SECTION 3: Demographic Questions

Instructions:
Please check the box that best describes you or your institution.

1. This institution is:
   - □ Public
   - □ Private For-Profit
   - □ Private Nonprofit

2. The primary Carnegie-classification of this institution is:
   - □ Baccalaureate
   - □ Master's
   - □ Doctoral/Research

3. The total 2017 fall enrollment at this institution was:
   - □ < 5,000 students
   - □ 5,000 – 9,999 students
   - □ 10,000 – 19,999 students
   - □ 20,000 – 29,999 students
   - □ 30,000+ students

4. I have been president at this institution for:
   - □ < 1 year
   - □ 1-3 years
   - □ 4-5 years
   - □ 6-10 years
   - □ 11+ years

5. In total, I have been a president for:
   - □ < 1 year
   - □ 1-3 years
   - □ 4-10 years
   - □ 11-20 years
   - □ 21+ years

6. The number of president positions I have held is:
   - □ 1 presidency
   - □ 2 presidencies
   - □ 3 presidencies
   - □ 4 presidencies
   - □ 5 or more

7. My age is:
    - □ < 30 years
    - □ 30-39 years
    - □ 40-49 years
    - □ 50-59 years
    - □ 60-69 years
    - □ 70+ years

8. My gender is:
    - ☐ Female
    - ☐ Male
    - ☐ Non-binary/ third gender
    - ☐ Prefer to self-describe _____
    - ☐ Prefer not to say

Note This is the approach recommended by the HRC, https://www.hrc.org/resources/collecting-transgender-inclusive-gender-data-in-workplace-and-other-surveys

Appendix E: Cover Email to College and University Presidents

To: President's email address_____
From: Ronna Halbgewachs (ronna@gwmail.gwu.edu)
Subject: Dissertation Research – 5 Minute Survey
Date: _____

Dear President _____,

You are invited to participate in a dissertation research study. The survey (link: _____) will take about 5 minutes to complete. You may complete the survey on a computer or mobile device. Every effort will be made to keep your response confidential.

This study is about emotional intelligence and leadership, particularly in higher education. More information about the purpose and nature of this study is provided in the attached consent statement.

You may opt-in to receive a confidential report of your individual emotional intelligence trait scores and the aggregated scores of the study group (the collective of your college and university peers). **Your unique identifier number is _____.** To opt-in to receive a report, insert your unique identifier number in Section 3 of the survey. Your report will be sent to you via email at the end of the study.

Thank you, in advance, for your participation.

Ronna Halbgewachs, MA, MBA
Doctoral Candidate
The George Washington University
ronna@gwmail.gwu.edu