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AN EXAMINATION OF THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND THE LEADERSHIP STYLES OF EARLY CHILDHOOD PROFESSIONALS

A DISSERTATION

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AN EXAMINATION OF THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND THE LEADERSHIP STYLES OF EARLY CHILDHOOD PROFESSIONALS

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ABSTRACT

Emotional intelligence and its relationship to leadership style has emerged as a topic of interest among researchers. The impact on the leadership style of a leader on an organization is clearly supported in the business field; however, it is not well understood in the early childhood education field. There is sparse published research that has explicitly studied leadership styles of early childhood professionals. The present quantitative study examined the relationship between emotional intelligence and leadership style in early childhood professionals. A total of 203 Department of Defense Children and Youth Program Managers completed the Emotional Quotient Inventory (EQ-i), the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), the Multifactor Leadership Questionnaire 5X (MLQ-5X), and a demographic survey. Correlational analyses and hierarchical linear regression analyses were used to examine the research questions. The results provide some evidence to support the relationship between emotional intelligence and leadership style. There were statistically significant positive and negative correlations between emotional intelligence and leadership style. Moreover, in this study, the EQ-i measure was a better predictor of leadership style than the MSCEIT measure. Furthermore, the results do indicate a need for further research using other leadership measurements and a more diverse sample from the early childhood field.

CHAPTER I: INTRODUCTION

The study of effective leadership has become a widely researched topic. According to Indira Ghandi, "Leadership at one time meant muscles, but today it means getting along with people." Over the last twenty years, new theories of leadership have been developed to include charismatic, visionary, and transformational leadership. The fundamental and important characteristic of these leadership theories is having leaders who have an understanding of their followers' needs and who develop skills to be more in tune with the emotional needs of followers in the workplace. Effective leaders have the ability to be in command of their emotions in order to motivate their staffs and to use their emotions to make sound decisions (Caruso, Mayer, and Salovey, 2002). According to Lopes et al. (2004), "Emotional competencies are thought to be important for social interaction because emotions serve communicative and social functions, conveying information about people's thoughts and intentions and coordinating social encounters" (p. 1018).

There has been increased interest in the construct of emotional intelligence and the potential role it plays in effective leadership. The research on emotional intelligence helps to broaden one's understanding of what it means to be smart by conceptualizing intelligence as more than intellectual abilities. Goleman (1998) strongly suggested emotional intelligence was a prerequisite for leaders to be successful and that leaders with a high level of emotional intelligence are more likely to use transformational behaviors. Individuals who exhibit emotional intelligence competencies are cognizant of the feelings and emotions of co-workers, exhibit and use these intuitive observations to help enhance communications, and use the information gathered to solve problems in the

workplace (Brown, 1999). According to research, leaders with emotional intelligence are able to regulate emotions and then express these emotions in an effective way to prompt positive results in their organizations. Leaders who are in tune with their emotions are able to analyze these emotions to distinguish between unimportant work projects and those that are meaningful and should be acted upon. A leader who has the ability to regulate the emotions of one's co-workers/subordinates is able to increase organizational effectiveness and productivity (Cherniss & Goleman, 2001).

Emotional intelligence in leaders and work groups is a significant factor in the success of organizations. Research is emphasizing the importance of leader emotional intelligence in improving overall organizational effectiveness (Sosik & Megerian, 1999). According to Ashforth and Humphrey (1995), "emotions are an integral and inseparable part of everyday organizational life" (p. 97). Every work situation is full of emotions (e.g., anger, frustration, humor, stress and exhilaration), which play a role in-group dynamics, communication, and leadership styles. Organizational culture is affected by the emotions of the individuals in the organization and the ability to read and deal effectively with other's emotions is an advantage in any position within an organization (Hamachek, 2000). From Goleman's (1995) perspective, "people with well-developed emotional skills are more likely to be content and effective in their lives" (p. 36).

Emotions play an important part in one's experiences and interpersonal relationships and people with high levels of emotional intelligence are highly knowledgeable about emotions. This emotional knowledge plays a key role in everyday social interactions. These interactions involve interpreting one's own emotions and those of others and then predicting the reactions to these emotions (Shaver, Schwatz, Kirson, &

O'Conner, 2001). Individuals make cognitive decisions on how to handle emotive episodes. Leaders can make appraisals of the situation as it relates to the person's motives and goals for the expressed emotion. Leaders are then able to interrupt the emotional episode based on the individual's motives and the effect it will have on the organization (Shaver et al, 2001). Mayer and Gehr (1996) claimed individuals with emotional intelligence have developed interpersonal and intrapersonal communication competencies and use emotional intelligence to problem solve by recognizing a specific emotion, analyzing the emotion, and then making a decision.

At the present time, there continues to be some confusion as to the precise meaning and definition of the emotional intelligence construct. Different researchers use different definitions of emotional intelligence and have developed different measures to operationalize the construct. The construct is categorized into two models: the ability model and the mixed-model. Each model presents a different framework for conceptualizing the construct and a different perspective on the skills, traits, or abilities that characterize emotional intelligence. The ability model defines emotional intelligences as an intelligence that has the capacity to understand the interplay of emotions and an array of cognitive abilities. This theory of emotional intelligence is based on one's cognitive ability to understand emotions. Other researchers use the term mixed-model to conceptualize and define emotional intelligence. The mixed-model, which was popularized by Goleman, includes a combination of mental abilities and personality traits (characteristics) such as motivation, well-being, and the ability to manage relationships (Mayer, 2001; Mayer, Salovey & Caruso, 2000a; Schutte et al., 1998). One of the most well- known mixed-model of emotional intelligence was

developed by Bar-On. In his model, emotional intelligence is defined as a set of emotional and social abilities that help people cope with the daily demands and the ability to be more effective in the relationships in their lives (MacCann, Matthews, Zeidner, & Richards, 2004).

In addition to emotional intelligence being recognized as valuable to leadership skills and success, the transformational leadership style has become one of the dominant theories in leadership research. Research provides evidence that transformational leadership has a positive impact on organizations, as well as followers. Transformational leaders possess skills that help to develop a vision and establish goals that will motivate subordinates. The leaders must be able to communicate their visions to the subordinates; build trust through being consistent, unrelenting and dependable; avoid being deterred from the articulated vision; and remain consistent to their messages. Moreover, transformational leaders have a positive self-regard, accept individual differences, and demand a proactive approach to meeting the organizations needs (Northouse, 2004).

Within the early childhood education field, little research has been conducted on the specific subject of leadership styles that are necessary for the successful operation of early childhood programs. Over the last ten years, research has been done on the relationship of emotional intelligence to leadership success and transformational leadership success in both health care settings and in formal education settings; but no research has specifically looked at leadership within the early childhood education field (Sosik & Megerian, 1999). Almost all research in the area of transformational leadership and the relationship of emotional intelligence to leadership has been conducted within the business field or formal educational establishments (e.g., elementary or secondary

schools or higher education). The professionals who lead early childhood programs face many challenges that require intense, effective leadership skills. Many administrators in the early childhood field are unclear as to what leadership means and what constitutes effective leadership. The limited research that has been conducted does point to the conclusion that few early childhood professionals in leadership roles feel comfortable with the day-to-day management and supervisory responsibilities of working with adults (Rodd, 2006).

Early childhood leaders, specifically in the Department of Defense (DoD) Children and Youth Programs, are given the task of administering programs and in many cases the leaders have had limited leadership training. Many leaders in the DoD Children and Youth Programs are more transactional in their leadership style and, thus, focused on the transactions involving day-to-day management of programs to ensure DoD regulations and policies are implemented. This type of leadership lacks the necessary passion and sincerity which is needed to inspire followers and to have a real impact on the quality of the Early Childhood Education (ECE) programs. These leaders face critical decisions that affect children and families and they need to do the right thing rather than what is expedient.

In many locations throughout the world, there are no set standards or skill requirements for an individual to be in the position to supervise and administer early childhood programs. Individuals who are recruited or promoted into leadership positions usually have laudable skills working with young children or have longevity at the specific program site. It is the exception not the rule when a professional is hired to take on a leadership role in an early childhood program because he or she had received leadership

training or specific early childhood experience in a leadership position (Rodd, 1996). Lay-Dodyera and Doydera (1985) proposed that leaders must develop varied leadership capabilities to guide and motivate staff in order to meet the mission of ensuring the well-being of children's lives and their families. Lay-Doydera and Doydera (1985) pointed out, "Administrative leadership is essential to the achievement of organizational goals" (p.23).

The leadership style of transformational leaders and the awareness of the importance of emotional intelligence skills could provide opportunities for improving the success of recruitment, selection, and promotion of individuals in the early childhood field into leadership positions. Like many occupations that provide service through face-to-face encounters, early childhood educational professionals are involved daily with situations that are laden with emotions. The day-to-day encounters with clientele can be emotionally draining. Effective leaders need to be able to appraise and express emotions, effectively use emotions, and be knowledgeable about emotions (George, 2000). How leaders perceive and regulate these emotions within the organizational setting has a potentially wide range of leadership implications (Ashforth & Humphrey, 1995).

A modicum of administrators in the ECE field are beginning to understand the importance of effective leadership and how knowledgeable leaders can move the field ahead by making competent decisions for children and their families (Kagan & Bowman, 1997). According to Rodd (2006), "It is becoming increasingly evident that the future survival and growth of the services provided by specialized early childhood professionals into the next century will depend upon strong, responsible leadership emerging from within the profession"(p. 5).

From a hiring standpoint, research indicates that the levels of one's emotional intelligence may provide an initial indication of leadership potential and could provide organizations, like the DoD programs, the means for selecting effective organizational leaders (Barling, Slater, & Kelloway, 2000). Current research supports the premise that leaders can be trained to use transformational leadership, as well as develop emotional intelligence competencies (Goleman, 1998). Transformational leaders have the ability to identify organizational problems, and they have a clear vision of how the organization should move forward. Furthermore, training could be made available to all employees in an effort to create a pool of potential leadership candidates to provide effective leadership.

Statement of Purpose

The purpose of this study was to examine the relationship between the construct of emotional intelligence, as defined by Mayer, Salovey, and Bar-On to Bass's Full Range of Leadership development model, as defined by Bass and Avolio, This relationship was examined in the context of Early Childhood Education field. Three test instruments were used to measure the relationship between the two constructs: the Multifactor Leadership Questionnaire-5X (MQL-5X),□□ the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), and Bar-On's Emotional Quotient Inventory (EQ-i). The study investigated different conceptual frameworks of emotional intelligence by comparing the two measures of emotional intelligence and analyzing the subsequent correlation of emotional intelligence to the MLQ-5X leadership styles. By administering both the MSCEIT and the EQ-i the study looked to determine if one measure was a better predictor of leadership style than the other.

This research study attempted to identify the possible predictive relationship between one's level of emotional intelligence and leadership style. Furthermore, the study looked to see the specific relationship between transformational leadership and emotional intelligence by studying early childhood education leaders working within the DoD Children and Youth Programs. Experts in both leadership theory and the emotional intelligence construct recognize there is a possible multifaceted relationship between emotional intelligence and leadership performance. Emotional intelligence may be able to provide some explanation for leadership success, and predict leader effectiveness within an organization. Additionally, the research findings may have implications for selecting and training leaders, reducing turnover and developing effective organizational leaders.

The study specifically examined the relationship between the full range leadership model (transformational, transactional, laissez-faire) and emotional intelligence in the early childhood education leadership setting using personnel who worked for the DoD Children and Youth Programs. The results may provide an important impetus within the early childhood field to look further at effective leadership characteristics in the development of individuals within these leadership positions. The results will certainly be important to the DoD programs but the generalizability of the findings to traditional early childhood leadership settings may be more limited.

Research Questions

To better understand the relationship between emotional intelligence (EI) and leadership styles of early childhood education professionals, the following research questions were addressed in the study:

Research Question Set 1. What is the relationship between the ability-based model measurement of EI (MSCEIT), the ability and personality mixed-model measurement of EI (EQ-i), and the self-reported leadership styles of the participants as measured by the MLQ-5X? Additionally, what is the relationship between various demographic factors and leadership style?

Research Question Set 2. First, does the performance-based EI measurement (MSCEIT) have any added value in explaining variation in leadership style controlling for the self-report EI measurement (EQ-i)? Second, the question is reversed. What is the added value of using the EQ-i in explaining leadership style given the MSCEIT? Additionally, because the MSCEIT uses both branch and area level scores when reporting results, do these relationships hold using both the Branch and Area level scores in separate models when evaluating the incremental effects of the EQ-i.

Research Question 3. What moderation effects, if any, does socio–demographic information such as age, education level, gender, and years of experience have on determining the level of EI and leadership style?

Research Question 4. Which specific EI measurements and demographic variables best predicts variation in leadership style in this sample of early childhood education professionals?

Significance of the Study

Answers to the aforementioned research questions could provide insight into the relationship between emotional intelligence and leadership style. Furthermore, certain factors associated with the development of emotional intelligence and leadership style could provide insight into what types of professional development opportunities might be

helpful to early childhood educational professionals to improve the effectiveness of their leadership styles. Research indicates that emotional skills play a significant role in the effectiveness of leaders.

CHAPTER II: REVIEW OF LITERATURE

The literature review looks at three areas of research: emotional intelligence, leadership styles and early childhood leadership. The review will first examine the conceptualizations of intelligence, which expand beyond intellectual abilities. The review will then go on to focus on the framework for understanding the construct of emotional intelligence and the different conceptualizations of the construct. Next, the review discusses the full range leadership model, which includes transformational, transactional and laissez-faire leadership styles. The review will then explore the various components of emotional intelligences and its relationship to leadership styles. Finally, the review will examine the limited literature on early childhood leadership styles.

Conceptualization of Intelligence

Social Intelligence

As early as 1920, researchers were hypothesizing that intelligence was more than academic aptitude and that it was also comprised of emotional and social factors. In 1920, Edward Thorndike conducted research in the area of alternative intelligences and hypothesized that intelligence not only had an academic facet, but that it also had a social and emotional facet (Mandell & Pherwani, 2003; Thorndike, 1920a). Thorndike (1920b) stated, "The facts of every-day, when inspected critically, indicate that a man has not some one amount of one kind of intelligence, but varying amounts of different intelligences" (p. 228). He separated intelligence into three distinct components: mechanical, social, and abstract intelligence. Mechanical intelligence is defined as the ability to understand and oversee mechanisms such as machines, a piece of agriculture or

environmental condition. Social intelligence is the ability to astutely understand and interpret human relations. Finally, abstract intelligence refers to the ability to handle symbols and ideas (Thorndike, 1920b).

Triarchic Theory of Human Intelligence

Robert Sternberg's work emphasized the importance of successful intelligence and differentiated it from academic abilities. Sternberg (1997) pointed out that, "conventional IQ is only one of part of managerial intelligence, it is not all there is to managerial intelligence" (p. 475). He felt that nontraditional models of intelligence provided better predictors of job performance and success.

Sternberg's triarchic theory of human intelligence is comprised of three aspects: analytical, creative, and practical. Analytical intelligence is what one usually measures with IQ tests. The second aspect of intelligence in Sternberg's model is creative intelligence. One's ability to think creativity is an important part of being an effective leader because one is able to see old things in new ways. Practical intelligence is also referred to as common sense. Tacit knowledge plays a key role in practical intelligence because it is acquired on one's own without the help of others. Sternberg proposed that practical intelligence corresponds to real world intelligence which included the abilities of being able to understand relationships (Cartwright & Pappas, 2008; Sternberg, 1997).

Multiple Intelligence Model

The work of Howard Gardner has provided support for the theories of multiple intelligences. Although he did not use the term emotional intelligences, his concepts of interpersonal and intrapersonal intelligences provided a foundation for the work on emotional intelligence (Schutte, 1998). The central idea of Gardner's theory is that people

develop a set of intelligences rather than a single intelligence (Oliver, 1997). Gardner (1999) defined intelligence as, "a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture" (p. 33-34). Gardner's theory was first developed and used as implications for teachers in terms of classroom instruction. In more recent years, his theory has been applied to the area of leadership within organizations (Gardner, 1999).

Gardner's multiple intelligences theory contends there are eight multiple intelligences (verbal/linguistic, logical/mathematical, visual/spatial, bodily/kinesthetic, musical/rhythmic, interpersonal, intrapersonal, naturalist) that exist in everyone to varying degrees which span both academic and practical realms of intelligence. The intelligences of intrapersonal and interpersonal could be categorized as practical abilities that apply to daily situations (Wagner, 2000). Gardner's interpersonal and intrapersonal intelligences encompass the definition of emotional intelligence (Weller, 1999).

Interpersonal intelligence is the ability to understand and communicate with others through moods, motivations and feelings and the ability to sense others' feelings and temperament. Having the ability to do the aforementioned enables the leader to have successful relationships with workers, be an effective communicator, and have the ability to persuade others in work situations to work effectively with others to attain organizational goals. Leaders with interpersonal intelligence are good at understanding people, leading others, organizing, communicating and meditating conflicts (Oliver, 1997; Weller, 1999).

Intrapersonal intelligence is the ability to examine one's self, to understand one's own feelings, to be consciously aware of one's self-identity and reflect on or about one's

self. A person with intrapersonal intelligence is able to understand him or herself, follow his or her instincts and intuition, is highly motivated, and has confidence in his or her abilities (Weller, 1999).

Emotional Intelligence

Over the past nineteen years, more attention has been placed on emotional intelligence in the workplace and its increasing importance as a predictor of individual and team success in organizations. In the 1990's, research emerged on the construct of emotional intelligence and Mayer and Salovey first published their research data on their conceptualization of the construct of emotional intelligence. In 1994, Goleman published his "popularized" conceptualization of emotional intelligence. The two models of emotional intelligences that came into view were Mayer and Salovey's ability model and Goleman's mixed-model (Mandell & Pherwanti, 2003). As defined by Mandell and Phewanti (2003), the ability model "defines emotional intelligence as a set of abilities that involves perceiving and reasoning abstractly with information that emerges from feelings" (p. 389). The ability model is supported by the research of Mayer and Salovey. According to Salovey and Mayer's model (2004), emotional intelligence is defined as "the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth" (p. 35). The mixed-model is based on research conducted by Bar-On and Goleman. Goleman defines emotional intelligence "as the ability to recognize and regulate emotions both within the self and within others" (1995). The mixed-model looks

at ability as it relates to social behaviors, traits and characteristics. Table 1 provides a comparison of the three models.

Table 1. Three Main Models of Emotional Intelligence

Ability Model (Mayer & Salovey) Definition: "EI refers to an ability to recognize the meanings of emotions and their relationships and to reason and problem solve on the basis of them. EI is involved in the capacity to perceive emotions, and manage them (Mayer & Salovey, 2004, p. 124).	Mixed-Model (Bar-On) Definition: "An array of noncognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures (Bar-on,2004a, p.14)	Mixed-Model (Goleman) Definition: "The capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships (Goleman, 1998, p. 317).
Four Branches 1. Identifying emotions 2. Using emotions 3. Understanding emotions 4. Managing emotions	Five Categories 1. Intrapersonal skills 2. Interpersonal skills 3. Adaptability 4. Stress management 5. General mood	Four Domains 1. Self-awareness 2. Self-management 3. Social awareness 4. Relational awareness

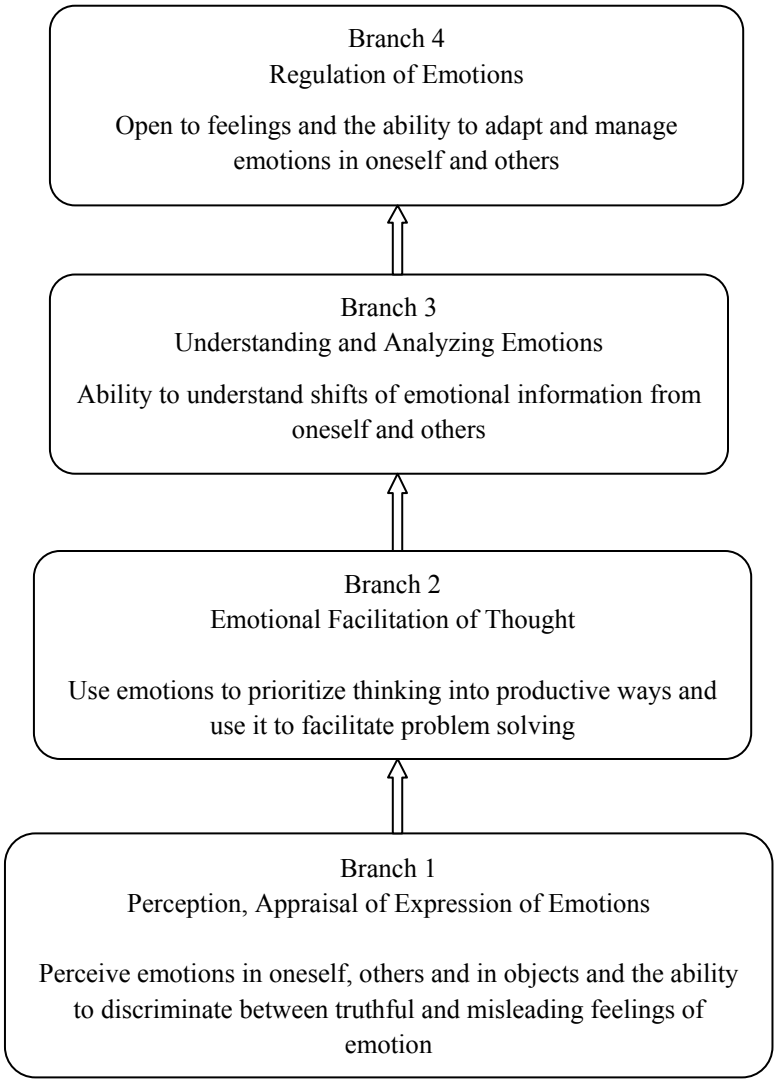
Ability Model of Emotional Intelligence.

Mayer and Salovey's theoretical definition is based on their premise that emotional intelligence is a type of intelligence because it meets the criteria for designating it as an intelligence. In general, intelligence refers to "a person's overall

capacity for adaptation through effective cognition and information processing" (Roberts, Zeidner, & Matthews, 2001, p. 197). The three criteria that a construct must meet to be considered an intelligence are: it increases with age/maturity, it represents mental performance, and it should be closely related to mental abilities that are previously recognized (Mayer, Caruso, & Salovey, 2004). Emotional intelligence is distinguished from the standard cognitive intelligence quotient by its focus on behaviors and feelings of individuals rather than on data and knowledge (Brown, 1999).

The Mayer and Salovey emotional intelligence model is a cognitive-emotional ability model. Salovey and Mayer (1990) first described EI 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" (p. 189). This original definition had three Branches which involved interpreting emotional information in oneself and others. The three Branches were: 1) the ability to appraise and express emotions, 2) the ability to regulate emotions, and 3) the ability to use emotions in adaptive ways (Cartwright & Pappas, 2008). Mayer et al. (2004) revised their original definition to include four Branches. The updated model includes: 1) perception and expression of emotion, 2) assimilating emotion in thought, 3) understanding and analyzing emotion, and 4) reflective regulation of emotion (Mayer et al., 2000b). The model is a hierarchical model starting from the most basic of psychological processes to more integrated processes with the fourth Branch being the most important. Within the Branches are abilities that are developed along a continuum because the model emphasizes that EI is not a single ability but multiple abilities that are developed along a continuum progressing from simple to more complex abilities. Table 2 provides the framework for the ability model.

Table 2. The Hierarchical Four Branch EI Ability Model



Source: Mayer, J.D., Salovey, P., & Caruso, D. (2000). Models of emotional intelligence. R. Sternberg (Ed.), *The handbook of intelligence, (pp.396-420).* New York: Cambridge University Press.

Branch 1 – emotional perception and expression. The first Branch encompasses such factors as perception, appraisal and expression of emotions. The Branch consists of the ability to be self-aware of one's own emotions and to express emotions. Being able to perceive emotions involves making sense of the emotional messages that are expressed

through facial and postural expressions, the tone of voice and communication channels that express needs associated with these messages (Mayer, 2001; Salovey et al., 2004).

Branch 2 – emotional facilitation of thought. The second Branch looks at one's ability to assimilate basic emotional experiences and determine how emotions affect the cognitive system. It is the ability to use feelings and the emotions associated with these feelings to prioritize thinking and facilitate creative problem solving (Mayer, 2001; Salovey et al., 2004).

Branch 3 – emotional understanding. The third Branch is the ability to understand emotions by understanding the underlying reasons why some emotions are similar and interpret the meanings behind the emotions. People with this ability are able to recognize the causes and consequences of emotions in a situation (Mayer, 2001; Salovey et al., 2004).

Branch 4 – emotional management. The fourth and most important Branch is the ability to manage and regulate emotions. The fourth branch reveals how people use emotions to problem solve and adapt to social situations. It is the ability to understand emotions and how important they are to interpersonal relationships (Mayer, 2001; Salovey et al., 2004). At this level, a good leader is able to mange emotions based on "goals, self-knowledge and social awareness" (Mayer et al. 2004, pp. 199).

The ability model focuses on competencies that are related to emotions and everyday social interactions. The model's framework looks at the cooperative relationship between emotions and intelligence. It looks to the leader's ability to recognize and use his or her emotions, as well as the emotions of others' to help solve problems and stabilize behavior within a given situation (Salovey & Mayer, 1990).

Salovey and Mayer's (1990) conceptualization of emotional intelligence looks at how individuals appraise and communicate emotions and then how these emotions are used to solve problems.

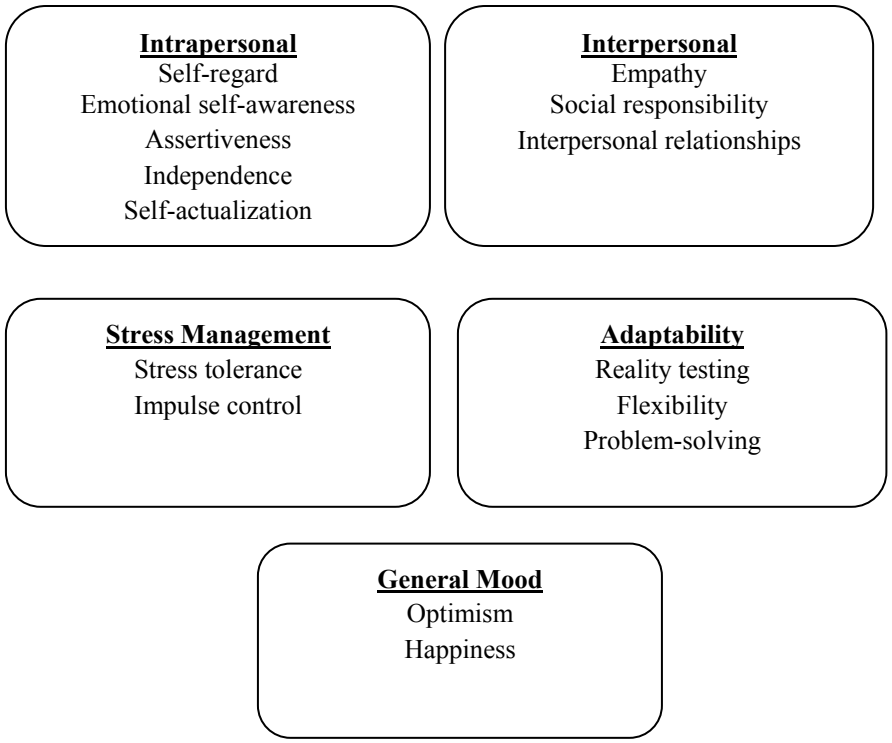
Mixed-Model of Emotional Intelligence–Bar-On Emotional-Social

Bar-On (2004a) defines his conceptualization of emotional intelligence as "an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (p.14). His model is referred to as the emotional-social intelligence. Bar-On is interested in measuring emotional and social intelligence which includes emotional, personal and social abilities. Bar-On's conceptualization of emotional intelligence is a non-cognitive capabilities model, which differs from the conceptualization of the ability model of emotional intelligence. Bar-On's conceptualization of emotional intelligence combines mental abilities with characteristics which are separate from mental ability such as mood and self-actualization.

The Bar-On model of emotional-social intelligence suggests there is an interrelationship among emotions and personal and social abilities that interact to help individuals cope with the overall daily demands and pressures they encounter (Bar-On, 2000). The key components to Bar-On's model (Table 3) are the ability to understand and express feelings; the ability to understand and relate to the feelings of others; the ability to manage interpersonal and intrapersonal problems; and the ability to be self-motivated and create a positive mood (Bar-On, 2000, 2004a; Neubauer & Freudenthaler, 2005).

Table 3. Bar-On's Conceptual Model of Emotional-Social Intelligence

5 Factors and 15 Sub-Factors



Source: Bar-On, R. (2004). *Bar-On Emotional Quotient Inventory: Technical manual.* North Tonawanda, New York: Multi-Health Systems.

Bar-On's model has five factor areas: intrapersonal skills, interpersonal skills, an adaptability scale, stress-management and general mood. These factors represent the characteristics that Bar-On thought would lead to success in life (Mayer et al., 2000b). The intrapersonal area includes specific skills such as emotional self-awareness, assertiveness, self-regard, self-actualization, and interdependence. The interpersonal area includes interpersonal relationships, social responsibilities, and empathy. The area of adaptability scales encompasses problem solving, reality testing, and flexibility. The stress-management scales include stress tolerance and impulse control. The fifth area is

general mood which includes happiness and optimism. According to Mayer et al. (2000a), "many of the attributes of the model, such as reality testing, stress management, and impulse control, seems to stretch beyond what is generally meant by emotion or intelligence" (p. 102).

Mixed-Model of Emotional Intelligence-Goleman

Daniel Goleman has made major contributions to the field of emotional intelligence in the workplace. Goleman developed a framework for emotional intelligence with four domains (self-awareness, self-management, social awareness, relationship management) consisting of twenty competencies (Table 4). As pointed out by Goleman (1998), the competencies are grouped together based on "common underlying emotional capacities" (p. 25).

The four domains in the EI framework are hierarchical and self-awareness is the most crucial. Individuals are not expected to develop or excel in all the competencies/norms in each domain, but Goleman (1998) suggests the development of a minimum of six competencies, spread out over the four domains is vital. The competencies and norms within the four domains can be learned if leaders provide training and mentoring opportunities in emotional intelligence capabilities to individuals (Cherniss & Goleman, 2001).

Self-awareness. Self-awareness is seen as the groundwork for the other domains of emotional intelligence. Self-awareness allows one to be able to recognize feelings, thoughts, emotions and moods as they occur. Self-awareness provides a barometer to measure how a leader interacts with others and how he/she is capable of controlling fate based on his/her interpretation of the situation (Hamackek, 2000). Individuals who have

developed self-awareness skills know their strengths and weaknesses and learn from their mistakes and seek feedback to improve on their weaknesses (Cherniss & Goleman, 2001).

Table 4. Goleman's Emotional Intelligence Competencies

Self-Awareness Cluster –(Personal Competence) Emotional self-awareness Accurate self-assessment Self-confidence
Self-Management Cluster – (Personal Competence) Self-control Trustworthiness Conscientiousness Adaptability Achievement orientation Initiative
Social Awareness Cluster – (Social Competence) Empathy Organizational awareness Service orientation
Relationship Management Cluster – (Social Competence) Developing others Inspirational leadership Influence Change catalyst Communication Building bonds Collaboration & teamwork Conflict management

Source: Boyatzis, R.E. & Sala, F. (2004). The emotional competence inventory (ECI). In G.Geher (Ed.) *Measuring emotional intelligence: Common ground and controversy,* (p.181-196). New York: Nova Science Publishers, Inc.

In order for an individual to develop self-awareness, he or she needs to develop the following competencies: emotional awareness, accurate self-assessment and self-confidence. Individuals looking to develop these competencies need to recognize emotions and the effects they have on other people; be aware of their strengths and weaknesses; have the ability to be decisive and to be open to feedback and looking at different perspectives.

Self-management. Individuals developing skills within this domain would try to manage their own impulses, stay composed during times of change and think clearly. They would also attempt to attain the skills of dealing with feelings, monitoring their own moods/feelings, and develop appropriate avenues to release these emotions. Individuals who can control their feelings and impulses are better able to adapt to change (Goleman, Boyatzis, & McKee, 2002). Other individual competencies that could be developed include building trust, adaptability, flexibility, and an openness to look at new ideas in order to achieve higher goals.

Leaders need to use this self-management when dealing with employees and the task assignments that need to be performed. A strong leader needs to develop a repertory of communication skills to use when working with employees that would cause the desired action not inaction in times of conflict (Megerian & Sosik, 1996). Individuals with emotional intelligence develop non-emotional ways to exhibit a calm, nurturing demeanor and have the ability to read the response from their employee and encourage the employee to be successful.

Social awareness. Empathy is the ability to recognize and understand the emotions of others. Empathic understanding is crucial for social awareness for

individuals and in many cases is manifested in the nonverbal cues of the other person. People who have the ability to empathize have a well-developed sense of self-awareness, because they need to be aware of their own feelings before they can understand the feelings of others. Social awareness encompasses the competencies of understanding others needs and offering assistance to others (Hamachek, 2000; Mayer & Salovey, 1993).

Relationship management. Relationship management is defined as one's ability to help resolve interpersonal conflicts. Emotionally intelligent individuals have the ability to analyze human relationships and emotions; and then, use this information to effectively resolve conflicts and disputes. Individuals who are able to handle relationships with others by being genuine can be catalysts for action within organizations (Goleman et al., 2002; Megerian & Sosik, 1996). Individuals, as well as groups, need to develop competencies in communication skills such as listening, sharing information, and responding appropriately to the situation. Leaders also need to develop leadership skills such as: guiding groups, managing conflict, building rapport, and collaborating with other groups to build teams with commitment.

Measurements of Emotional Intelligence

The difference between the conceptualization of the two models of emotional intelligence necessitates the need for different measurement instruments to be used to operationalize the constructs (Perez, Peterides, & Furnham, 2005). Ability models of emotional intelligence use performance based measures, whereas the mixed model uses self-report measures (Mayer, Salovey, & Caruso, 2000b). A self-report measure assesses the person's perception about his or her level of emotional intelligence. According to

Wihelm (2005), "Self-report based measures rely on reported typical behavior, they are internal appraisals of preferences, response bias can be substantial—they are easy and quick to administer" (p. 133). One of the problems with self- reporting instruments is that they rely extensively on the person's self-understanding alone. Ability or Performance-based measures are based on a person's ability to perform mental problems through problem solving and not on that person's belief about his or her self-assessed ability (Cartwright & Pappas, 2008; Geher & Renstrom, 2004). As Wilhelm (2005) has noted, "Performance-based measurement procedures rely on maximal behavior, they are effortful and lengthy to administer and they are suppose to measure an ability" (p.133).

The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) is a performance-based measure of emotional intelligence. The two most frequently used scoring methods are consensus and expert scoring. In consensus scoring, the individual's responses to questions are scored based on the most common response given by the group. This method of scoring is believed to be a reliable way to score the measure. With expert scoring, experts from the field use their best judgment to determine the best answer to the question. The person taking the assessment receives credit for an answer if it matches the answer of the "expert." Both methods of scoring have been shown to reveal high validity and reliability of the results (Mayer, Salovey, & Caruso, 2002).

Bar-On developed a self-report instrument to measure the mixed-model of emotional intelligence, which is referred to as the Emotional Quotient Inventory (EQ-i). It is one of the most widely used measures of emotional intelligence. The EQ-i has five composite scales and twelve subscales. The five composite scales are Interpersonal, Intrapersonal, Adaptability, Stress Management, and General Mood. Research indicates

the scales have good internal consistency and test-retest reliability. Factor analysis also provided support for the EQ-i's structure and the convergent and discriminate validity of the EQ-i is supported (Cherniss & Goleman, 2001; Mandell & Pherwani, 2003). The information gathered from the EQ-i on an individual provides an indication of the potential for the individual to use EI skills to succeed in work environments (Mayer et al., 2000b).

Self- report measures rely on a person's ability to accurately self-assess his or her level of emotional intelligence. Cartwright and Pappas (2008) point out, self-report measures are based on the assessment of self-perceived levels of emotional intelligence and may not be good indicators of emotional intelligence because individuals can fake or present an image of the person he or she desires to be. Research (Dulewicz & Higgs, 1999) has found that men have a tendency to overestimate their emotional intelligence and women tend to under-estimate their emotional intelligence levels.

Daniel Goleman uses the Emotional Competency Inventory (ECI) to measure his conceptualization of emotional intelligence. It is a 360 instrument which can rate an individual or the organization as a whole (Mayer et al., 2000). Goleman's scale has been criticized for its lack of reliability, and there is not much written in scientific journals about its psychometric properties (Perez et al., 2005).

Emotions and Reason

Emotions play an important role in a leader's life. Emotions can affect how someone thinks and behaves in social interactions with others. According to Damasio (1994), emotions play a key role in how people make decisions, reason and communicate with others in a variety of situations. Each day leaders are involved in receiving emotion

related information and using this information to guide cognitive decisions. Some psychologists feel that emotions and reasoning are at odds with each other because they perceive emotions as being irrational. More recently, psychologist acknowledge that emotions may enhance reasoning and cognitive capacities (George, 2000; Salovey, Bedell, Detweiler, & Mayer, 2004; Schultz, Izard, & Abe, 2005). The use of emotions can enhance one's cognitive processes as well as decision-making abilities. According to Damasio (1994), emotions can help with making decisions by anticipating how it feels in particular circumstances thus helping one to consider various options to deal with the issue. Furthermore, positive and negative emotions can be used to assist in cognitive processes such as creativity, integrated thinking, reasoning skills, and paying attention to details of processing information. (George, 2000).

Emotional knowledge develops with age and as people age they are better able to use this information to process real-life situations. Knowledge allows people to evaluate how influential a situation is and then react to this emotional information with a particular emotion. This process leads to the appraisal of emotions which is based on emotion knowledge and how one evaluates this knowledge (Lazarus & Smith, 1988; Schultz et al., 2005).

According to Salovey, et al., (2004), "Success in life depends on a person's ability to reason through emotional experiences and other affect-laden information, and to respond in emotionally adaptive ways to the inferences drawn by reason about the person's situation, prospects, and past" (p. 506). Furthermore, emotions and reason are seen as interdependent processes and from this premise the work in emotional intelligence provides a way to understand how there is an interaction between emotion

and reason (Salovey & Pizarro, 2003). In summary, research indicates there is a relationship between emotion and reason. Furthermore, emotions can positively assist in a leader's reasoning process which in turn has an impact on the leader's cognitive responses to situations or people (Damasio, 1994).

Full Range Leadership Model

The theory of Transformational leadership evolved from the work of James McGregor Burns and was later extended by Bernard Bass. In 1978, Burns introduced the theory of transforming and transactional leadership as a single leadership continuum, with transforming at one end, transactional in the middle and laissez-faire leadership at the other end of the continuum. Bass expanded Burns theory to include three behaviors associated with transformational leadership which included charisma, intellectual stimulation, and individual consideration. Bass and Avolio (1990) further refined the transformational leadership behavior by adding the fourth factor of inspirational motivation. Additionally, the term charisma was changed to idealized influence (Avolio, Bass, & Jung, 1999; Barbuto & Burbach, 2006). Table 5 illustrates the current full range leadership model with five factors associated with transformational leadership, the three factors associated with transactional leadership, and the one factor associated with laissez-faire.

The full range of leadership (FRL) model includes transformational, transactional and laissez-faire leadership styles. The model forms a hierarchy model with transformational at the top and laissez-faire at the bottom with transactional somewhere between the two (Bass & Avolio, 1997). There are nine factors in this leadership model: idealized influence-attributed, idealized influence-behavioral, inspirational motivation,

intellectual stimulation, individualized consideration, contingent reward, management-by-exception-passive, management-by-exception-active, and laissez-faire (Bass & Avolio, 1990,1997).

Table 5. Full-Range Leadership Model

Transformational Leadership	Transactional Leadership	Laissez-Faire Leadership
Factor 1 Idealized influence-attributed **Factor 2** Idealized influence-behavioral **Factor 3** Inspirational motivation **Factor 4** Intellectual stimulation **Factor 5** Individualized consideration	**Factor 6** Contingent reward **Factor 7** Management by exception (passive) **Factor 8** Management by exception (active)	**Factor 9** Laissez-faire

Source: Avolio, B. J., & Bass, B. M. (2004). *Multifactor leadership questionnaire manual and sampler set* (3rd ed.). Menlo Park, CA: Mind Garden, Inc.

There are five transformational factors, three transactional factors and one laissez-faire factor. The Multifactor Leadership Questionnaire-5X (MLQ-5X) survey instrument measures the FRL variables. The scores from the MLQ-5X can be used to help leaders look at individual leadership profiles in organizations. These profiles can help the leaders become aware of areas where they may need training or to develop areas where they show a weakness (Bass, 2002; Bass & Avolio, 1997).

According to Bass (1990b), transformational and transactional are two leadership styles that can appear independently of each other and can provide two distinct leadership dimensions. Transactional leadership does not appear to go far enough to help build trust and to motivate followers to achieve their fullest potential whereas transformational leadership does. The current organizational work environment needs leadership that goes beyond the basic transactional leadership style to one that is more intellectually stimulating, inspirational and charismatic (Avolio et al. 1999). When comparing transformational leadership to transactional leadership behaviors, transformational leadership is considered the more effective leadership style (Palmer, Wall, Burgess, & Stough, 2001).

Transformational leaders are able to communicate the organization's vision, inspire and intellectually stimulate followers and motivate followers to transcend their own personal interests for the higher, collective good of the organization (Bass & Avolio, 1990; Northouse, 2004). Leaders who utilize the transformational style of leadership use one or more of the five components of transformational leadership: idealized influence-attributed, idealized influence-behavioral, inspirational motivation, intellectual stimulation, and individualized consideration (Bass, 1990a).

The basis of the transformational theory of leadership are the four I's: idealized influence, individual consideration, inspirational motivation, and intellectual stimulation (Bass & Avolio, 1990). Intellectual stimulation refers to the increased awareness of problems and the ability to influence followers to look at problems from a new viewpoint. Individualized consideration is when the leader develops empathy for his/her followers. Inspirational motivation is categorized by the ability to communicate a vision

and to be a role model for appropriate behaviors. Finally, idealized influences are behaviors that produce emotions in the followers, which cause them to identify with the leader (Bass, 2002; Yukl, 2002). According to Yukl (2002), the followers of transformational leaders are motivated to do more, have respect towards their leader, and feel trust and loyalty. In Bass's view (as cited in Yukl, 2002), "transformation leadership is considered effective in any situation or organization" (p. 255).

Idealized influence. Idealized influence is defined as leaders getting their subordinates to view them in an idealized way. Because they are able to do this, the leaders exert substantial power and influence over their followers. Subordinates trust and have confidence in their leaders because they model exemplary behavior or achievement.

Leaders who use this component are seen as role models who are respected and trusted. In some instances, followers want to emulate their supervisors. According to Bass (2002), "They can be counted on to do the right thing, demonstrating high standards of ethical and moral conduct" (p. 107).

Inspirational motivation. Inspirational motivation addresses raising followers' consciousness about the shared goals and a vision of the organization and how to attain them. Leaders communicate high expectations with confidence and instill the energy to accomplish the goals through higher levels of performance (Bass & Avolio, 1990). Leaders who utilize inspirational motivation inspire followers by providing challenges in the work environment through setting high standards, effectively communicating their vision and encouraging followers to develop and achieve beyond what they think is possible. The enthusiastic leader shares the vision of the organization and sets the expectations to motivate and arouse team spirit (Bass, 2002; Megerian & Sosik, 1996).

Individual consideration. Individual consideration infers an understanding and sharing of other's concerns and treating subordinates as unique individuals. Effective leaders pay close attention to subordinates individual developmental needs and act as mentors and coaches to help followers grow and develop (Bass & Avolio, 1997). Through listening to followers, strong leaders are able to address the needs and desires of the followers. According to Bass (2002), "They delegate tasks as a means of developing followers and help to develop followers into leaders" (p.108).

Intellectual stimulation. Intellectual stimulation causes subordinates to re-think old ideas in a new way. Leaders drawing on this factor encourage creativity and innovation. Leaders also teach followers to look at difficulties as problems to be solved. They stimulate the development of capabilities to solve future problems by instilling pride and commitment in their subordinates (Bass & Avolio, 1990b). Bass (2002) points out that followers', "ideas are not criticized because they differ from those of the leader or others" (p. 107). Bass (1990b) suggested,

> Superior leadership performance –transformational leadership- occurs when leaders broaden, and elevate the interests of their employees; when they generate awareness and acceptance of the purpose and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group (p. 21).

Bass's theory makes a clear distinction between transactional and transformational leadership. Transactional leadership involves the exchange of rewards as a way to motivate subordinates while transformational leadership involves communicating a vision, inspiring subordinates, and instilling self-respect and faith in the

subordinate's capability (Coetzee & Schaap, 2005). Burns (1978) suggested that transactional leadership involved manipulating followers by telling them if they did something for the leader, in return the leader would do something for them. Transformational leadership is seen as the process of transforming or introducing change to the organization (Coetzee & Schaap, 2005; Kent, Crotts, & Azziz, 2001).

The relationship between charisma and transformational leadership is unclear. For the purposes of this study, charisma will not be used interchangeably with transformational leadership. Kent et al. (2001), suggest there is a difference between transformational leadership and charisma. They see charisma as a way to get people to follow based on blind obedience and they see transformational leadership as encouraging "followers to think on their own" (p. 222).

Transformational leadership emphasizes empowerment and helping followers to perform beyond established standards and goals. The followers in the transactional leadership model have needs fulfilled by the leader in exchange for their performance. Conversely, leaders who exhibit a laissez-faire leadership model see leaders as absent when they are needed by their followers, and they do not accept responsibilities, do not provide feedback, and make little effort to meet the needs of their followers (Barbuto & Burbach, 2006; Gardner & Stough, 2002).

The transformational leader tries to create a new organization from an existing one where the transactional leader is just fine-tuning the current model and keeping things status quo (Dess, Picken, & Lyon,1999). Dess et al. (1999) suggest there are five basic principles that transformational leaders adhere to: move quickly and decisively,

create a sense of urgency, communicate a vision and plan, set strict goals and empower others to act and entrench the changes.

Organizational studies have shown repeatedly that leaders who were measured by the MLQ and found to be high in the transformational factors were more effective and fulfilling than transactional leaders. These aforementioned results have been found in a variety of organizational settings (Bass, 1990b; Mandell & Pherwani, 2003). Transformational leaders make more contributions to the organization because they raise standards, take calculated risks and get subordinates to follow their vision for the future of the organization. Bass (1990b) surmised that organizations that have excellent management have a large number of transformational leaders. An organization that is saturated with transformational leaders is an organization that has an eye on the future, employees who are working together to accomplish the organization's goals and is developing their people into leaders.

Increasing transformational leadership practices within an organization can have implications for success in recruitment, selection, training, and the development of future leaders. Since organizations can measure the factors of transformational leadership, this process can be incorporated in their selection process, as well as their training and development programs. The potential employee's responses to the assessments of leadership style can be taken into consideration when decisions about that person's capabilities and potential to be effective in the leadership position. Additionally, managers already working for the organization can use the measure to identify their areas of strength and weakness. Skills such as individual consideration are manifested in such behaviors as coaching skills, face-to-face communications and a willingness to delegate.

The factor of intellectual stimulation can be assessed to determine a leader's creative thought processes (Barbuto & Burbach, 2006; Bass, 1990a, 1990b; Coetzee & Schaap, 2005). Transformational leadership skills that are developed and nourished have the potential to improve the well-being and health of followers in the organization.

Transformational Leadership and, Emotional Intelligence

Transformational leadership is composed of four factors referred to as the four I's (idealized influence, inspirational motivation, intellectual stimulation, individualized consideration). The four I's of transformational leadership are the foundation of the theory and are used to explain the behavior of transformational leaders. The question arises as to what internal force(s) work within transformational leaders to produce positive results in an organization. Preliminary research suggests that components of emotional intelligences may play a role in developing the strong emotional bond between leaders and their subordinates (Coetzee & Schaap, 2005; Garner & Stough, 2002; Palmer et al., 2001). In Goleman's (1998) view, leaders who have a high level of emotional intelligence are successful leaders. Organizations are beginning to recognize the value of leaders who have developed emotional intelligence competency skills. Barling et al. (2000) acknowledge that, "It might be tempting to assume that emotional intelligence leads to higher levels of transformational leadership; however, the possibility that being a transformational leader raises one's emotional intelligence cannot be excluded" (p. 160). There appears to be some connection between leaders that have high levels of emotional intelligence and leaders who exhibit the transformational leadership style in the work setting.

Barling et al. (2000) and Megerian and Sosik (1996), explored the relationship between the components of the mixed model of emotional intelligence, and the four I's that are the characteristics of transformational leadership. They analyzed the relationship between self-awareness and idealized influence; social awareness and individualized consideration and social awareness; and self-management and inspirational motivation. Baring et al. found no relationship between emotional intelligence and intellectual stimulation, and they made the assumption that intellectual stimulation is more related to cognitive skills. Moreover, they felt the components of individual consideration, inspirational motivation, and idealized influence were related to emotional intelligence abilities.

Megerian and Sosik (1996) suggest there is a positive relationship between emotional intelligence and intellectual stimulation. Intellectual simulation encourages followers to view problems from a different perspective and to look at old problems from a new approach. Emotionally intelligent leaders may be empathetic and sensitive to followers' needs when alternative ways to solve problems are presented (Barbuto & Burbach, 2006; Higgs & Aitken, 2003). Goleman (1995) promotes the idea that when leaders wish to intellectually stimulate followers they may be more able to produce the desired affect by using emotional intelligence skills. "Good moods enhance the ability to think flexibly and with complexity, thus making it easier to find solutions to problems" (Goleman, 1995, p. 85).

Burns (1978) felt that emotions played an important role in the leadership process, and he outlined four roles. First, transformational leaders have the ability to emotionally arouse followers to take action and to help to develop followers into leaders. Secondly,

leaders use emotions to persuade subordinates to take on innovative changes within the organization. Thirdly, leaders take advantage of emotions to cultivate follower commitment and improve the leader-follower relationship. Finally, transformational leaders use empathy to understand their subordinate's needs. Therefore, transformational leaders may deliberately manipulate subordinates' emotions in order to motivate or persuade leader actions by using emotional intelligence competencies (Ashford & Humphrey, 1995; Bass, 2002; George, 2000; Palmer et al., 2001).

To some extent, emotions are an integral part of transformational leadership behaviors. These emotions may be predictive of behaviors exhibited by transformational leaders. Therefore, leaders who show evidence of high levels of emotional intelligence, such as the ability to motivate oneself and others and the ability to modify one's moods to inspire action with the organization, may demonstrate transformational leadership behaviors of idealized influence, inspirational motivation, intellectual stimulation, and individual consideration (Ashford & Humphrey, 1995; Barbuto & Burach, 2006; Bass & Avolio, 1997; Morehouse, 2006).

Leaders must have the ability to identify the emotions that they are feeling as well as have the ability to identify the emotions of their followers. Understanding and managing the emotions of followers empowers leaders to make decisions and positively influence others to reach organizational goals (Bass, 2002).

Early Childhood Leadership

The research on the topic of leadership in the early childhood field is insufficient in light of the impact leaders in the field have on programs for children and their families. Only a few researchers such as Julian Rodd, Gwen Morgan, and Paula Jorde-Bloom have

accomplished most of the research that has been conducted. The literature on the subject of leadership in the early childhood field for the most part consists of anecdotal observations and qualitative research (Muijs, Aubrey, Harris, & Briggs, 2004). The early childhood field has a number of articles written about the management roles of administrators and directors but the question about what is leadership remains unanswered (Kagan, 1994). This lack of research in early childhood education is in sharp contrast to what is written about leadership in the public school area.

Morgan (1997) points out that the early childhood field has been lethargic in recognizing the competencies necessary for the roles early childhood leaders must juggle such as supervisor, recruiter, disciplinarian, financial manger, and advocate for improved policies for children's programs in order to lead effective early childhood organizations. In the current economic climate, early childhood leaders need highly developed leadership skills to deal with fiscal constraints and the continual changes in government policies (Muijs et al., 2004; Rodd, 2006).

Morgan (1997) suggests the nature of the early childhood field can hinder the development of leaders within the field because most individuals in leadership positions still view themselves as educators and child development specialists. This premise could be the reason why many early childhood professionals lack the combination of leadership skills and early childhood development skills (Muijs et al., 2004).

Lay-Dopyera and Dopyera (1985) and Morgan (1997) acknowledge the importance of early childhood professionals considering the literature and knowledge that exist in other fields on leadership style and the insights that can be gained by the early childhood field. However, Morgan (1997) also recognizes the fact that many early

childhood professionals are unaware of the research on leadership. Kagan (1994) asks, "What is the real applicability of traditional and more contemporary leadership theories to early childhood education?"(p. 50). Rodd (2006), also questions whether well-known leadership studies and theories are pertinent to the early childhood field because many are based on male leadership styles. It is suggested that the leadership styles of early childhood leaders would differ from the styles that are used by males (Rodd, 1996, 2006). However, evidence from research indicates that there are only minor gender differences in leadership styles (Mandell & Pherwani, 2003). Moreover, this lack of going outside the early childhood field to bring theory from other domains to better help leaders understand their styles of leadership may be the crux of the issue.

According to Jones (1995), "Empowerment, collaboration, iteration, creative problem-solving, and shared decision making–hallmarks of transformational leadership process-have inspired early childhood professionals for decades" (p. iii). From Jones's perspective, the characteristics that compose transformational leadership are ones those professionals aspire to when working with children and their families on a daily basis. In a study conducted by Rodd (2006), childcare professionals identified the characteristics they thought were indicative of an effective leader. The characteristics they identified were being assertive, proactive, professionally confident, visionary, influential, and a mentor. Furthermore, the ability to effectively communicate the philosophy and vision of the organization to stakeholders was seen as important. These characteristics are similar to the factors associated with both transformational and transactional leadership skills.

The book titled, *Leadership in Early Care and Education* (Kagan & Bowman, 1997), discusses five areas of leadership: advocacy, administrative, community,

conceptual, and career development. Within the definitions of each type, there are strands of information that relate to the characteristics of transformational leadership. Advocacy leadership encompasses the characteristics of making tough decisions and taking risk; inspiring and supporting new leaders; and visualizing and planning for the future. Administrative leadership characteristics include planning organization's goals and mission; community relations; influencing policies that affect the organization; financial management skills; and empowering others. Community leadership has the elements of action-oriented, empowerment of others, and helping others to solve new problems in new ways. Conceptual leadership attributes include emotional and moral support of followers and the need to possess the skills to be a visionary leader who stresses long-term goals for the organization and strategic thinking (Kagan & Bowman, 1997; Taba et al., 1999).

Besides the lack of research, the need for quality leadership training is another issue in the field of early childhood. More often than not, early childhood leaders are promoted from being a teacher to becoming the administrator of the program (Taba et al., 1999). In many cases, they have little to no prior training in leadership skills. There are many comparisons between being a good teacher and being a good leader; however, there are many important differences (Catron & Groves, 1999; Jorde-Bloom & Sheerer, 1992). Jorde-Bloom and Sheerer (1992) contend that providing leadership training to directors/administrator of early childhood programs has a positive effect on the quality of the educational program.

In summary, the early childhood profession needs individuals with strong leadership skills to effectively make day-to-day decisions and to set goals for the future.

Strong leadership skills of an organization's leader have been found to be an indicator of the quality early childhood programs.

There is a lack of research on what it means to be an effective leader in the early childhood field (Muijs et al., 2004). Moreover, it appears the conceptualization of skills an effective leader possesses is unclear to early childhood professionals. This lack of clarity is the reason why specific training, based on solid research in this area is essential to the creation of effective early childhood leadership.

Furthermore, for early childhood program leaders to move towards implementing an effective leadership style such as transformational leadership, they must first move away from the traditional organization setting of a top-down, hierarchical organization embedded in a transactional leadership model and move to an organization that empowers followers and creates teamwork.

Summary

This chapter has reviewed the literature pertaining to emotional intelligence, full range leadership style and early childhood leadership. Transformational leaders display traits such as empathy, motivation, self-awareness and self-confidence and these qualities are all subcomponents of emotional intelligence (Goleman, 1995; Mandell & Pherwani, 2003). Furthermore, motivation is a characteristic shared by both constructs and is a vitally important trait of effective leaders. Goleman (as cited in Mandell & Pherwan, 2003, p. 399) "stated that all the characteristics of transformational leaders are also essential characteristics of emotional intelligence."

The literature review suggests there is a relationship between emotional intelligence and leadership style. This relationship is shown to be an important factor in leadership effectiveness. The literature on leadership is vast for many career fields; however, very little is written about understanding leadership in the context of the early childhood education field. Based on the literature, it is clear the early childhood field needs to make an effort to provide more research on the topic of what leadership skills and characteristics are needed for early childhood professionals to be effective leaders. The nature of the early childhood professionals work environment necessitates the need for strong leadership skills and enhanced emotional intelligence skills.

CHAPTER III: METHODOLOGY

This chapter describes the quantitative methods used to study the relationship between emotional intelligence and full-range leadership styles. The following areas are discussed: participants, data collection procedures, descriptions of the measures used to operationalize emotional intelligence and full-range leadership style and the phases of the data analysis.

Participants

The participants for this study were Children and Youth Program managers who work for the United States Department of Defense (Army, Air Force, Navy) Children and Youth Services Programs. A total of 203 packets of test instruments were collected to form the initial sample. The final analysis sample consisted of between N=180 and N=187 participants.

In order to be eligible to participate in the study, the participants had to hold a leadership position. The sample consisted of professional management personnel currently holding a leadership position with responsibilities for early childhood programs. The participants represented all management levels within Children and Youth Programs, which varied from GS-07 (entry level position) to GS-13 (mid-level management). The participants were from military installations in Europe (Belgium, Germany, and Italy) and the East Coast of the United States (Virgina, Maryland, Pennsylvania, and New Jersey). Eight-eight percent of the participants were female and 12% were male. Their ages ranged from 18 to over 55 years old.

Procedure

I used multiple sites for administering the measures to the participants. The researcher administered all instruments. All participants were apprised of the objective of the study and given letters of informed consent to sign. The participating leaders completed the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), the Emotional Quotient Inventory (EQ-i), the Multifactor Leadership Questionnaire (MLQ-5X), and a demographic profile survey.

The beginning data was collected at the Association for Young Children Europe (AYCE) semi-annual conferences in 2005 and 2006. Additional data was collected at Children and Youth Program staff meetings between 2006 and 2007. The researcher made telephonic and electronic contact with individuals who had oversight for the Children and Youth Programs requesting permission to gather the data and outlined the research project. Participants were asked to allot 1.5 hours to complete the assessments.

Before each data collection session, the researcher introduced the nature of the study and gave a brief description of the instruments. All participants signed an informed consent form, and they were told they could withdraw from the study at anytime.

Each participant was given a number coded packet to ensure confidentiality, and participants returned the packet directly to the researcher. The packet contained the four data collection instruments. The order of the administration of the Emotional Intelligences instruments was determined by number. In the even number packets, the EQ-i was taken first and the MSCEIT was taken last. Conversely, in the odd numbered packets the participant took the MSCEIT first and the EQ-i last. Participants were instructed to read the directions at the top of each instrument before starting. Next, they

recorded their demographic information on the demographic survey. Finally, the participants completed the self-rating form of the MLQ-5X. Once the participants completed all the instruments, the instruments were returned to the envelope and sealed before they were put into the collection container, which was monitored by the researcher at all times.

Data Collection Instruments

Multifactor Leadership Questionnaire. The MLQ-5X measures a broad range of leadership styles or the full range leadership model which includes transformational, transactional, and laissez-faire leadership style (Bass & Avolio, 1997). The MLQ-5X is used to assess leadership potential, to select potential candidates, or to identify leaders suited for particular kinds of organizations or situations. The test instrument is a 45-item measure of transformational leadership style, transactional and laissez-faire leadership behavior, which measures the frequency with which the leader displays a range of behaviors. It takes about fifteen minutes to complete the questionnaire. The questionnaire has two forms: a self-rating form and a rating form used by associates (supervisor, colleague or subordinate). This study only used the leader self-rating form, which evaluates how they believe they engage in particular types of leadership behavior. The MLQ-5X assesses leadership behavior that is considered exceptional and it measures effective and ineffective leadership performance (Bass & Avolio, 1997).

The MLQ-5X assesses five factors of transformational leadership (idealized influence, inspirational motivation, individual consideration, and intellectual stimulation), three transactional factors (contingent reward, management by exception – active, management by exception-passive), one non-transactional factor (i.e., laissez-faire) and

three outcome factors (Bass & Avolio, 1997; Bycio et al., 1995). A five point Likert scale where 0 indicates "not at all" and 4 indicates "frequently, if not always" is used. The reliabilities for the MLQ-5X are generally high ranging from .74 to .94.

Scoring for the MLQ-5X. The MLQ-5X was scored by adding all nine factors to get a transformational, transactional or laissez-faire leadership style score for each participant. For the purposes of this study, the transformational leadership, transactional, and laissez-faire scores were used to show to what extent they correlated with the two emotional intelligence measurements. The scores for the MLQ-5X are calculated by averaging the item scores for each of the nine factors. Each of the factors has four items with scores ranging from 0 to 4 (Avolio & Bass, 2004).

Emotional Quotient Inventory. This study used the Bar-On Emotional Quotient Inventory (EQ-i), which is a self-report measure of emotional and socially competent behavior that provides an estimate of a leader's emotional and social intelligences. The EQ-i is a paper and pencil test. The Emotional Quotient Inventory (EQ-i) has 133-items, which are categorized into five components; however, fifteen of these are associated with scales intended to assess response validity, a self-measure of one's level of emotional intelligences (Cherniss & Goleman). The five components are: Intrapersonal, Interpersonal, Adaptability, Stress Management and General Mood. The Intrapersonal component assesses inner self such as one being in touch with one's feelings and having a positive outlook on life. The Interpersonal component rates whether one has good people skills and has the ability to relate and interact in a good way with followers. The Adaptability component assesses how well one adapts to environmental demands and pressures. The Stress Management component assesses how leaders handle stress and the

General Mood component assesses one's ability to enjoy life (Mandell & Pherwani, 2003).

The inventory takes about 40 minutes to complete. Items are answered using a five-point Likert scale where one indicates "very seldom or not true of me" and five indicates "very often true of me." The Flesch formula for readability puts the inventory on a sixth-grade level. The raw scores are converted to standard scores with a mean of 100 and a standard deviation of fifteen. The high and low scores are determined by how far they are from the mean score. Scores that are above or below the mean by one standard deviation are within the normal range. The EQ-i measure provides a total score, five scale scores, and 15 subscale scores (Cherniss & Goleman, 2001; Mandell & Pherwani, 2003).

Bar-On (2000a) concludes that the EQ-i can predict academic performance, occupational performance, job satisfaction and the ability to cope with work-related stress. The EQ-i has been shown to be predictive of occupational success for U.S. Air Force recruiters (Cherniss & Goleman, 2001). The retest reliability of the instrument has a coefficient of .97 for the EQ-i total scores which exceeds Nunnally's (1978) recommended correlation standard (Bar-On, 2004a, 2004b). Furthermore, according to Bar-On (2004a), Cronbach alpha coefficients are high for all subscales with an overall average internal consistently of α=.76.

Scoring for the EQ-i. Scoring for the EQ-i is usually done by the test companies that produce the test; however, the results provided would be total scores and not the individual level scores that the researcher needed. The researcher used the same scoring methodology which was outlined in the Technical Manual (Bar-On, 2004) to score the

test. Some of the items were reversed scored to account for possible response inconsistency. The scores for the fifteen competencies subscales, five composite scores and total overall EQ score were calculated. The response items on the EQ-i are scored using a five point Likert scale. "Very often true of me or true of me" receives five points and conversely, "very seldom or not true of me" receives one point.

Mayer Salovery Caruso Emotional Intelligence Test V2.0 (MSCEIT). The Mayer Salovery Caruso Emotional Intelligence Test (MSCEIT) V2.0 is an ability test of emotional intelligence. The MSCEIT measures the four Branches of emotional intelligence as defined by Mayer and Salovey's ability model. The four Branches are: perceiving emotion accurately, using emotion to facilitate cognitive activities, understanding emotion, and managing emotion (Salovey et al., 2004).

The MSCEIT V2.0 has 141-items with five responses to each item to measure the four branches of emotional intelligence and takes about 30-45 minutes to complete. The MSCEIT score is standardized just like traditional intelligence scale scores with the average General Emotional Intelligence quotient (EIQ) score being 100 and the standard deviation is 15. Each branch is measured by two tasks. As explained by Mayer et al. (2004), "Perceiving Emotions is measured with the Faces and Pictures task; Facilitating Thought is measured with the Sensations and Facilitation task; Understanding Emotions is measured with Blends and Changes; and Managing Emotions is measured with Emotion Management and Emotional Relationship tasks" (p. 151).

The MSCEIT V2.0 can either be taken in a written booklet form or in an on-line format. The scoring of the MSCEIT can be done by either expert consensus criterion or by general consensus criterion. In the general consensus method, the participant is

measured against the proportion of the scores that selected the same answer. In the expert consensus method, the participant's response is scored based on the responses of the experts group. (Salvory et al., 2004). The MSCEIT provides a total score, two Area level scores, four Branch scores and eight Task scores (Mayer et al. 2004).

MSCEIT full-test split-half reliabilities for both general and expert consensus scoring were high at the Area and Branch level. The full test reliability score for general scoring was .93 and the reliability score for expert consensus scoring was .91. At the Area level, the Experiential Area for both expert and general scoring were .90. The Strategic Area score reliabilities were: .88 for general scoring and .86 for expert scoring. The reliabilities for the Branch scores ranged from .76 to .91 for both scoring methods. The individual task scores ranged between .55 to .88 (Brackett & Mayer, 2003).

Scoring for the MSCEIT. The researcher was provided with an existing database containing expert consensus scores and weights to analysis the DoD data set. The scores of the DoD sample were scored using the results from the database of the expert consensus scores. The consensus weights were determined based on the procedures outlined in the MSCEIT technical manual (Mayer et al., 2002).

The expert consensus score data set was collected from five professionals working in the field of psychology (clinical, psychometricians). Each professional had a graduate degree in psychology. Expert consensus scoring was collected based on the professionals' responses that they felt would indicate someone who possesses a high level of emotional intelligence. Each item in the MSCEIT has five possible responses. Expert consensus scoring was weighted based on the frequency of the response. For example, if a response was chosen by 40% of the professionals, it would receive a weight of .40.

Furthermore, if 60% of the professionals identified a response item as one that one would possess a high level of emotional intelligence, then it would receive a weight of .60. The remaining three possible responses would receive a zero. The participants' scores were calculated by multiplying the weights for each item by the binary raw scores. Moreover, the scores for the Branch, Area, and Total MSCEIT scores were calculated by adding the appropriate weighted items for each section (Freeman, 2007).

Demographic Survey. The demographic survey was administered to gather information on age ranges for managers, years worked for the DoD, years of leadership experience, degrees held, and gender. The sample demographic survey is at appendix 1.

Data Analysis

The analyses of the data were conducted in five phases according to the research question. SAS was used to the analysis the collected data. The significant level of $p<.05$ was used.

Phase 1. The preliminary analyses of the study examined descriptive information and the psychometric properties and structure of the EQ-i and MSCEIT instruments. An examination of the inter-and intra-correlations of the two EI instruments, as well as verifying the reliability of these instruments on this sample were performed. All data was examined for outliers and non-normality. This analysis also indicated if there were potential difficulties with multi-collinearity between the EI constructs.

Phase 2. In Phase 2, Multivariate regression analyses of the MLQ-5X construct on the two EI instruments were performed. Additionally, the researcher examined the extent to which EI constructs predict leadership styles. Again, all models were examined

for violations of assumptions (outliers, multicollinearity, and normality) with corrective actions taken as necessary.

Phase 3. In the next phase, both emotional intelligence instruments were used to answer the question regarding which model of emotional intelligence, ability-based or mixed-model, is most predictive of leadership style. To address this important issue, the first step was to fit the ability-based model to leadership style. Once all the variance was removed that could be fit with the ability-based model, then the mixed-model was fit to assess for any additional predictive value. An analysis reversing the order of entry into the predictive model was conducted, because the possibility of multi-collinearity might have made the model order-dependent. Examination of the incremental r-squared values was used to assess the incremental validity of the emotional intelligence instruments in predicting leadership style.

Phase 4. Again, using multivariate regression, the demographic information was added to the models to assess for possible moderation effects. The moderator variables of gender, age, years of leadership experience, and degree were assessed to see how the multivariate regression in Phase 2 may vary by these demographic variables.

Phase 5. The scales from both EI instruments were used to find the "best" predictive model for explaining variation in leadership styles as measured by the MLQ-5X. All pertinent EI scales were entered simultaneously in a regression model with the MLQ-5X scales as the dependent variables. Systematic deletion of variables occurred using a variety of stepwise techniques. The model variables that were robust were retained as a close approximation to the "best fit" model.

Summary.

This chapter described the methodology use to answer the research questions. This chapter included the participants, procedures for collecting data, data collection instruments, and data analyses procedures. The results of the data analyses are presented in the next chapter.

CHAPTER IV: RESULTS

Descriptive Statistics

A total of 203 packets of test instruments were collected to form the initial sample. Subsequently, between sixteen and twenty-three participants were removed from various data analyses due to either incomplete data or because they were ineligible for the study. Thus, the final analysis sample consisted of between N=180 and N=187 participants. The fundamental demographic information for the DoD Early Childhood Professionals is provided in Table 6.

The sample consisted of individuals (88% female) who work for the Department of Defense (DoD) (Navy, Air Force, and Army) Children and Youth Programs in Europe and in the United States. The participants were professional management personnel with the position level of the respondents varying from GS-07 to GS-13. The length of employment ranged from one year to more than fifteen years of leadership experience within DoD. One hundred and thirteen participants had a degree in early childhood education or elementary education and 67 had other types of degrees. Of the participants, 13% held Associate Degrees, 35% held Bachelor Degrees, and 14% held Masters Degrees. Fifty-two percent of the managers have more than one degree.

Seventy-five percent of the participants had four or more years experience in a leadership position. All the participants held leadership positions with varied titles from a center based director to an overall program administrator (Coordinator/Flight Chief). Interestingly, only 17% of the participants had worked for the Department of Defense (DoD) for less than four years. Forty-eight percent had worked for the Department of Defense for eleven or more years.

Reliability

The internal consistency of the EQ-i, the MSCEIT, and the MLQ-5X were examined on the study sample. Cronbach's Coefficient Alphas were conducted for the EQ-i Subscales; the MSCEIT Subscales, Branch scores, Area scores and Total Overall score; and the MLQ-5X nine Factor scores. Tables 7, 9, and 11 present the alpha reliabilities for each measurement. The reliability estimates for this study are consistent with the reported reliabilities in the manuals for the Bar-On (2004); MSCEIT (2002); and MLQ-5X (2004).

The average Cronbach alpha coefficients are high for all of the subscales on the EQ-i (Table 7). The reliabilities on the EQ-i subscales range from a low of α=.61 (Positive Impression) to a high of α=.85 (Self-Regard), with an overall average alpha coefficient of α=.74 for the DoD Early Childhood Professional sample. These results are similar to the North American Military sample presented in the Bar-On (2004) technical manual.

The Cronbach alpha coefficients for the MLQ-5X (Table 9) factors range from a low of α=.42 (Laissez-Faire) to a high of α=.70 (Intellectual Stimulation), with an overall average alpha coefficient of α=.61 for the DoD Early Childhood Professional sample. All reliability estimates are consistent with those reported by Avolio and Bass (2004) Multifactor Leadership Questionnaire Manual with the exception of both MBEP (α=.43) and LF (α=.42), which are somewhat lower in this sample.

The Cronbach alpha coefficients for the MSCEIT (Table 11) ranged from a low of α=.18 (Emotional Relations) to a high of α=.88 (Pictures), with an overall average alpha coefficient of α=.61. The reliability estimates for the eight individual subtasks were low

in comparison to the Branch and Area scores. Because of these low subtask reliabilities, it is recommended by the authors of the MSCEIT not to use the subtask reliabilities in analyses, but to use the Branch and Area scores when interpreting data (Brackett & Salovey, 2004; Mayer et al., 2002; Rivers, Brackett, Salovey, & Mayer, 2007).

EQI Descriptive data.

Table 7 provides the correlations among the EQ-i subscales. I compared the correlations among EQ-i subscales in this sample to those reported in the EQ-i technical manual (Bar-On, 2004), by computing the average correlation between each subscale and the others in both this sample and the normative sample.

Results of the analysis suggested little difference between this sample's correlational structure and that of the normative sample. The largest discrepancy (Δ) in correlations in terms of absolute magnitude was less than $\Delta = .07$ and all signs were identical. The magnitude of the average pairwise correlations among EQ-i subscales is r=.44 in the DoD sample versus r=.48 in the normative sample.

Table 8 provides the EQ-i means, standard deviations, skewness and kurtosis for the DoD Early Childhood Professional sample. The mean total EQ score for the sample is 535.11 and the standard deviation (SD) is 46.55. The subscale scores of the DoD sample reveal a somewhat negative skew. The skewness scores are fairly low and negative, which is consistent with that reported in the EQ-i technical manual (Bar-On, 2004). When compared to the scores reported in the Bar-On EQ-i technical manual (2004) for the descriptive statistics in raw scores for the North American sample, I find a higher mean EQ score (M=535.11 vs. M=465.31) but similar variability (SD=46.55 vs SD = 49.99) in the DoD sample.

Examination of the individual subscale scores suggest that most of this total EQ mean difference is due to a large mean difference in the Interpersonal EQ subscale, with a much higher mean reported in the DoD sample (M=126.86 vs. M=99.52). Because the Interpersonal EQ subscale measures empathy, social responsibility, and the ability to establish and maintain interpersonal relationships, it is not surprising that this sample of early childhood education professionals would be higher in these constructs than the broader normative sample. It is also the case that the DoD sample has a much greater proportion of females (88%) than the normative sample (51%); since females have been shown to have greater empathy and social responsibility than males this may also account for this huge discrepancy in Interpersonal EQ scores (Downey, Papageorgious, & Stough, 2005).

MLQ Descriptive Data. Table 9 provides the correlations among the MLQ subscales. As with the EQ-i, I compared the correlations among MLQ subscales in this sample to those reported in the MLQ technical manual (Avolio & Bass, 2004), by computing the average correlation between each subscale and the others in both the DoD sample and the normative sample.

Results of the analysis suggested little difference between the DoD sample's correlational structure and that of the normative sample. The largest discrepancy (Δ) in correlations in terms of absolute magnitude was less than $\Delta = .08$ and all signs were identical. The magnitude of the average pairwise correlations among MLQ-5X subscales is r=.30 in the DoD sample versus r=.27 in the normative sample.

Table 10 provides the MLQ-5X means, standard deviations, skewness and kurtosis for the DoD sample. The subscale MLQ scores of the DoD sample reveal a slight

negative skew (mean skew = -0.67) except for three subscales: the MBEA, MBEP, and LF scales (mean skew = +0.46). When compared to the scores reported in the MLQ-5X technical manual (Avolio & Bass, 2004) for the U.S. normative sample, I find only small differences in either means (average $\Delta = 0.18$; average Cohen's $d = 0.30$) or variability (average SD=0.59 vs. average SD = 0.58). The subscale means were generally higher for the DoD sample, which is to be expected since all individuals in the DoD sample are in leadership positions.

MSCEIT Descriptive Data. Table 11 provides the correlations among MSCEIT scores at the individual Task, Branch, Area, and Total scale levels. I compared the correlations among MSCEIT subscales in the DoD sample to those reported in the MSCEIT technical manual (Mayer et al., 2002) by computing the average correlation between each subscale and the others in both the DoD sample and the normative sample.

Results of the analysis suggested some moderate differences in correlational structure at the subtask level between the DoD sample and the normative sample, but little difference between samples at the branch levels of analysis. Since the authors of the MSCEIT do not recommend using subtask scores due to their relatively low reliabilities, only the results at the branch level will be reported here. The largest discrepancy (Δ) in correlations in terms of absolute magnitude was less than $\Delta = .07$ and all signs were identical. The magnitude of the average pairwise correlations among MSCEIT Branch level subscales is r=.41 in the DoD sample versus r=.42 in the normative sample.
The descriptive statistics in MSCEIT raw scores for the DoD sample are provided in Table 12. The table provides the means, standard deviations, skewness, and kurtosis for the subtask, Branch, and Area scores, as well as the total overall score. When compared

to the scores reported in the MSCEIT technical manual (Mayer et al., 2002) for the U.S. normative sample, we find substantial differences in mean scores for two Branch level scales: the Perceiving Emotions scale (M=.44 vs. M=.56; Cohen's d = -1.33) and the Facilitating Thought scale (M=.39 vs M=.47, Cohen's d = -1.14). In both cases, the DoD sample scored lower than the MSCEIT normative sample. The difference in mean scores on the remaining Branch level scores (Understanding Emotions and Managing Emotions) were much smaller between samples (average Cohen d = -0.35). Additionally, the Branch level scores had similar variances in the two samples and all Branch level scores were negatively skewed in the two samples, with no skew value lower than the typical value of 2 which would be cause for concern.

At the level of Area scores, there was a substantial difference in mean scores on the Experiential EIQ scale (M=.41 vs. M=.51; Cohen's d = -1.43) between samples, but a much smaller mean difference on the Strategic EIQ scale (M=.50 vs. M=.54; Cohen's d = -0.50). The DoD sample scored lower than the normative sample on both area level scales. Finally, there were no notable differences in variability or skew between the DoD and the MSCEIT normative samples.

Table 13 provides the correlations between the MSCEIT Branch and Areas scores and the EQ-i composite scales. As shown in Table 13, slight correlations exist between the MSCEIT and EQ-i. The correlations that exist are between the MSCEIT Experiential EIQ and all the EQ-i composites scores: Intrapersonal (r=18, p<.05), Interpersonal (r=.24, p<.05), Adaptability (r=.23, p<.05), General Mood (r=.24, p<.05) and Stress Management (r=.17, p<.05). Similarly, there are slight correlations between the MSCEIT Facilitating Thought and all the EQ-i composite scores: Intrapersonal (r=.17, p<.05),

Interpersonal (r=.23, p<.05), Adaptability (r=.24, p<.05), General Mood (r=22, p<.05), and Stress Management(r=.20, p<.05). Furthermore, there are small correlations between the MSCEIT Perceiving Emotions with Interpersonal EQ, (r=.18, p<.05) and General Mood EQ (r=.19, p<.05). Marginal correlations are also evident between the MSCEIT Understanding Emotions and General Mood EQ (r=.20, p<.05). Similarly, there is a small correlation between MSCEIT Strategic EIQ and General Mood EQ (r=.24, p<.05).

According to Matthews et al., (2004), they consider correlations between r=0.00-0.09 as nonexistent or trivial. Furthermore, they consider correlations between r=0.10-0.29 as small. The marginal correlations of the MCSEIT and EQ-i reflected in Table 13 is reflective of the concerns expressed by other researchers about whether the two measures are actually measuring the same construct (Brackett & Mayer, 2003; MacCann et al., 2004; Matthews et al., 2004; Mayer et al., 2002).

Data Analysis Strategy

Multivariate hierarchical linear regression will be used to address the research questions. In this analysis, a series of sequential steps will be followed that will determine both the unconditional and conditional value of the EI instruments (EQ-i, MSCEIT) in explaining the leadership style used by the participants in this sample.

In the first step of the analysis, each EI instrument was used unconditionally (i.e. no other predictors in the regression model) to explain the observed variability in leadership style. In the second step of the analysis, each EI instrument will be added conditionally to a model containing various demographic factors (gender, job experience, age, and educational degree) to assess the added-value of the EI instrument. In the third step of the analysis, the researcher will fit interaction terms consisting of each EI

instrument with the various demographic factors to assess the potential moderating effects of the demographic variables. For example, does the relationship between EI and leadership style *vary by gender*?

In the last step of the analysis, I will use the results from the previous three steps to develop a "best" model for the research questions being addressed. This involves deleting variables from the regression model that are not useful for explaining variation in leadership style for this sample. Although the researcher should interpret these results with caution because of the possibility of overfitting the model, the last step can be a useful indicator of the overall relationship between important EI indicators and leadership styles.

Research Question Set I – Unconditional analyses

This research set of questions addresses two issues. First, what is the relationship between the ability-based model measurement of EI (MSCEIT), the ability and personality mixed-model measurement of EI (EQ-i), and the leadership styles of the participants as measured by the MLQ-5X? Additionally, what is the relationship between demographic factors and leadership style?

Table 14 provides Pearson Correlation Coefficients for the composite scales of the MLQ-5X, EQ-i, and MSCEIT. For the EQ-i, there are statistically significant positive correlations between each of the EQ-i composite scales and total EQ-i score with transformational leadership style (average $r = +0.40$, $p<.05$). Conversely, there are statistically significant negative correlations between each of the EQ-i composite scales and total EQ score with laissez-faire leadership style (average $r = -0.34$), $p< .05$). Finally,

there appears to be no statistically significant correlations between the EQ-i scales and the transactional leadership style (average $r = -0.01$, $p > .05$).

For the MSCEIT Branch and Area scores, there are few statistically significant linear relationships with leadership style. Two significant results pertain to the correlations between the Facilitating Thought scale at the Branch level and the Experiential EIQ scale at the Area level and transactional leadership style (average $r = -0.15$, $p < .05$). Additional results pertain to the correlations between the laissez-faire leadership style and the Facilitating Thought and Understanding Emotions scales at the branch level, the Strategic EIQ scale at the Area level, and the total MSCEIT score (average $r = -0.19$, $p<.05$).

In summary, the EQ-i to a great extent correlates with two of the leadership styles, transformational and laissez-faire, as measured by the MLQ-5X. The strength of the relationship is quite strong (according to the Cohen, 1992, guidelines) and suggests that a transformational leadership style is associated with higher levels of emotional intelligence whereas a laissez-faire leadership style is associated with lower levels of emotional intelligence. Interestingly, there was no relation between emotional intelligence-as measured with the EQ-i-and a transactional leadership style. The MSCEIT had a more mixed pattern of relations with leadership style. The MSCEIT and all of its subscales were unrelated to a transformational style, whereas the Strategic EIQ scale was negatively related to a laissez-faire leadership style, suggesting that individuals low in understanding and managing emotions tend to favor a more laissez-faire style. Additionally, whereas the EQ-i was not related to a transactional leadership style, the Experiential EIQ component, particularly the Facilitating Thoughts Branch level scale,

was positively related to a more transactional leadership style. This suggests that those participants who had a greater ability to employ their feelings to enhance their thinking in order to be more effective problem-solvers (Mayer et al., 2002) were more likely to use a transactional leadership style. Finally, whereas the strength of these relations were quite strong for the EQ-i, the relations between the MSCEIT and leadership styles were much weaker, barely reaching the small effect size status as given in Cohen's 1992 article.

Table 15 provides information as to whether demographic factors have a meaningful effect on the three leadership styles measured by the MLQ-5X (transformational, transactional, and laissez-faire). The effect of gender, years in leadership and age are not statistically significant ($p>.05$). However, there is a significant effect between the type of degree held and transformational leadership (Cohen's $d = .40$; $p<.05$), suggesting that those participants with a degree in Early Childhood/Elementary Education are more likely to use a transformational style of leadership than those with other types of degrees. As pointed out by Morehouse (2006), individuals in occupations such as the educational field tend be more emotionally intelligent. Sivanathan and Fekken (2002) contend there is a significant relationship between emotional intelligence and transformational leadership behaviors.

Research Question Set 2

This set of research questions addresses two questions. First, does the performance-based EI measurement (i.e. MSCEIT) have any added value in explaining variation in leadership style controlling for the self-report EI measurement (i.e., EQ-i)? Second, the question is reversed. What is the added value of using the EQ-i in explaining leadership style given the MSCEIT? Additionally, because the MSCEIT uses both

Branch and Area level scores when reporting results, I used both the Branch and Area level scores in separate models when evaluating the incremental effects of the EQ-i.

Table 16 presents the results regarding the incremental validity of the MSCEIT given the EQ-i. The results suggest that the MSCEIT has little incremental validity with respect to explaining variation in leadership styles after partialling out the influence of the EQ-i. This result holds up when using both the Branch and Area level scores.

Table 17 presents the results regarding the incremental validity of the EQ-i given the MSCEIT. The results suggest that the EQ-i has significant incremental validity with respect to explaining variation in leadership styles after partialling out the influence of the MSCEIT using either Branch or Area level scores. The incremental value of the EQ-i applies only to explaining participant variability in transformational (ΔR^2=.24, p<.01) and laissez-faire (ΔR^2=.24, p<.01) styles of leadership, however; there is no incremental value to the EQ-i scores in explaining variation in transactional (ΔR^2=.03, p<.01) leadership style.

To summarize, when both the EQ-i and the MSCEIT are allowed to directly compete with each other in terms of predicting variation in leadership styles, the EQ-i proves to have the better incremental validity, specifically with regard to transformational and laissez-faire leadership styles. This suggests that the MSCEIT may have little unique value in terms of explaining leadership styles once a participant's EQ-i scores are known. The next analysis dealing with potential moderators of the relationship between the MSECIT and EQ-i and leadership styles will further address this issue.

Research Question set III

What moderation effects, if any, does socio–demographic information such as age, education level, gender, and years if experience have on determining the level of EI and leadership style?

This data analysis section attempts to provide additional insight into the possible relationship of emotional intelligence and leadership style by examining the moderating effects of demographic factors. The study investigated four variables (gender, years of experience, age, and degree) as potential moderators of the relationship among emotional intelligence and leadership style variables. Figure 1 demonstrates how the moderators might influence the relationship between emotional intelligence and full range leadership model.

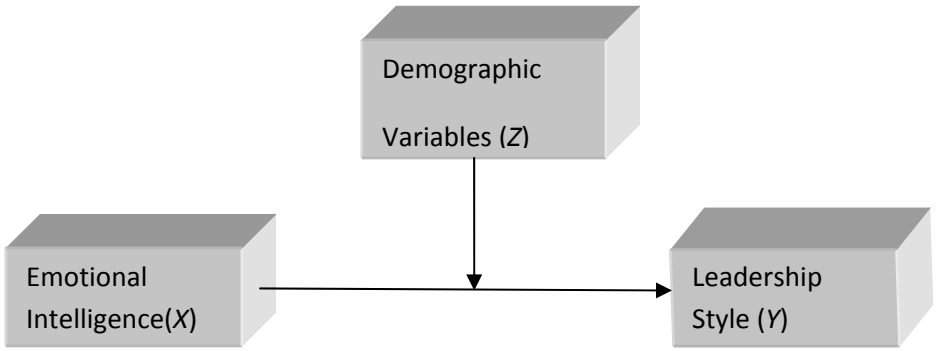


Figure 1. Moderated Effect Relationship

Tables 18, 19, and 20 provide analyses of the moderating effects of gender, years of leadership experience, age and degree on the strength of the relations between the various EI instrument scores and the dependent variables of transformational,

transactional, and laissez-faire leadership styles (Baron & Kenny, 1986; Jaccard & Turrisi, 2003).

The moderated multiple regression analysis undertaken followed three sequential steps. First, the relevant demographic factor was fit at the first step. Second, the targeted set of EI variables (EQ-i, MSCEIT Branch scores, MSCEIT Area scores) were entered at step two. Finally, the interaction variables of the demographic factor with the EI instrument variables were evaluated at the last step. If the set of interaction variables entered at the last step reached statistical significance, it is concluded that some moderation effect had occurred, and I then examined more closely the specific effect that was responsible for the increase in prediction. If the set of interaction variables at the last step did not reach statistical significance, the researcher then concludes that no moderation effects for that particular demographic variable occurred.

Moderating effects and the EQ-i. First, the researcher examined the EQ-i composite scale scores with the four demographic factors for any potential moderating effects (Table 18). The results suggested a moderating effect of gender on the relation between both the General Mood EQ ($F=5.63$, $p<.05$) and the Stress Management EQ ($F=7.53$,$p<.05$) scores of the EQ-i and a laissez-faire leadership style ($\Delta R^2 = .05$, $p<.05$). Specifically, these results suggest that females exhibit a much stronger positive relation ($\beta= +1.35$) between the General Mood EQ score and a laissez-faire leadership style than do males ($\beta= -0.34$). Contrarily, males exhibit a much stronger positive relation ($\beta=0.62$) between the Stress Management EQ score and a laissez-faire leadership style than do females ($\beta=-1.31$), who in fact exhibit a strong negative relation between their Stress Management EQ scores and a laissez-faire leadership style.

Additionally, the results also suggested a moderating effect of job experience on the relation between both the Interpersonal EQ ($F=4.49$, $p<.05$) and the General Mood EQ ($F=9.96$,$p<.05$) scores of the EQ-i and a transactional leadership style ($\Delta R^2 = .07$, $p<.05$). Specifically, these results suggest that those with more job experience have a more negative relation ($\beta= -2.83$) between Interpersonal Emotional Intelligence and a transactional leadership style than do those with less job experience. Moreover, those with more job experience have a more positive relation between the General Mood EQ score and a transactional leadership style than do those with less job experience.

There were no other statistically significant demographic moderators of the relations between EQ-i scores and leadership style.

Moderating effects and the MSCEIT. First, the researcher examined the MSCEIT Branch level scores with the four demographic factors for any potential moderating effects (Table 19). The results suggested a moderating effect of gender on the relation between the FEIQ ($F=7.44$,$P<.01$) scores of the MSCEIT and a transformational leadership style ($\Delta R^2 = .08$, $p<.05$). Specifically, these results suggest whereas females exhibit a negative relation ($\beta= -0.53$) between the Facilitating Thought MSCEIT score and a transformational leadership style, males exhibit a positive relation ($\beta=+0.53$). This indicates that whereas females skilled in using emotions to enhance cognition are less likely than other females to be a transformational leader. Furthermore, male transformational leaders are more likely to be skilled in using emotions to enhance their cognitive reasoning than other males.

Aside from the previous finding, there were no other statistically significant demographic moderators of the relations between MSCEIT Branch-level scores and leadership style.

At the MSCEIT Area level scores (Table 20), the results suggested a moderating effect of gender on the relation between both the SEIQ ($F=5.89, p<.05$) and the EEIQ ($F=11.11, p<.05$) scores of the MSCEIT and a transformational leadership style ($\Delta R^2 = .06$, $p<.05$). Specifically, these results suggest that females have a positive relation ($\beta=+1.2$) between Strategic EIQ and a transformational leadership style, whereas males have a negative relation ($\beta=-0.76$). Contrarily, females have a negative relation ($\beta=-1.39$) between Experiential EIQ and a transformational leadership style, contrasting with males having a positive relation (+0.93). These two findings suggest that females who are better at managing emotions without necessarily being able to perceive or manipulate emotions are more likely to embrace a transformational leadership style, whereas the opposite is true for males.

Additionally, the results also suggested a moderating effect of job experience on the relation between both the EEIQ ($F=6.04$, $p<.05$) scores of the MSCEIT and a transformational leadership style ($\Delta R^2 = .03$, $p<.05$). Specifically, these results suggest that those with more job experience have a more positive relation ($\beta= 1.32$) between Experiential EIQ and a transformational leadership style than do those with less job experience. With increasing job-related experience, perceiving, responding, and manipulating emotional information is more related to embracing a transformational leadership style than for those with little job-related experience.

There were no other statistically significant demographic moderators of the relations between MSCEIT area scores and leadership style.

Research Question 4

Which specific EI measurements and demographic variables best predicts variation in leadership style in this sample of early childhood education professionals?

To address this issue, the researcher used results from the previous analyses to create a best-fitting multiple regression model, combining both EQ-i and MSCEIT measures, demographic data, and their interactions into the same analysis. Table 21 contains the results of this analysis for all three leadership style dependent variables.

First, I developed a best predictive model for predicting a transformational style of leadership. The results show that this model worked quite well in explaining differences in transformational leadership style ($F=7.95$, $R^2=0.34$, $p<.05$). The best model suggested that a high score in transformational leadership is inversely related to job experience ($t=-2.60$, $p<.05$) and the MSCEIT Strategic EIQ score ($t=-2.46$, $p<.05$) while being positively related to the EQ-i General Mood score ($t=4.41$, $p<.05$) which measures a general sense of optimism. However, the Strategic EIQ score from the MSCEIT is also moderated by gender ($t=2.52$, $p<.05$), with females showing a positive relation between Strategic EIQ and transformational style and males showing little relation. Finally, the model includes the moderating effect of both gender and job experience on the Experiential EIQ component of the MSCEIT and being a transformational leader. As discussed earlier, females are who are low in perceiving, responding to, and manipulating emotions tend to be high in using transformational leadership styles whereas there is only a small but negative relation between these two

constructs in males. Finally, increasing job experience tends to exacerbate the small, but slightly positive relation between Experiential EIQ and transformational leadership.

Second, I developed a best predictive model for predicting a transactional style of leadership. Although this model was statistically significant, it was not as effective in explaining differences in transactional leadership style ($F=3.39$, $R^2=0.09$, $p<.05$) as was the previous model's ability to explain transformational leadership. The best model suggested that a high score in transactional leadership is negatively related to the General Mood (optimism) score on the EQ-i ($t=-2.41$, $p<.05$). Additionally, two significant interactions were also found, both indicating a moderating effect of job experience on the emotional intelligence and transactional leadership style link. More job experience tended to lead to increasingly negative relations between the Interpersonal EQ-i score and scores on transactional leadership ($\beta=-2.91$), whereas more job experience tended to lead to increasingly more positive relations between the General Mood (optimism) scores from the EQ-i and transactional leadership.

Finally, the researcher developed a best predictive model for predicting a laissez-faire style of leadership. Although this model was also statistically significant, it was not as effective in explaining differences in a laissez-faire leadership style ($F=7.56$, $R^2=0.24$, $p<.05$) as was the previous model's ability to explain transformational leadership, but it does have much greater predictive validity than the model for transactional leadership. The best model suggested that a high score in laissez-faire leadership is negatively related to the Adaptability score from the EQ-i ($t=-2.21$, $p<.05$) and the Intrapersonal score from the EQ-i ($t=-2.67$, $p<.05$), while being positively related to the Stress Management score from the EQ-I ($t=2.64$, $P<.05$). Additionally, there was a significant moderating effect of

gender upon the relation between both the General Mood (optimism) score from the EQ-i ($t=2.31$, $p<.05$), the Stress Management score from the EQ-i ($t=-2.64$, $p<.05$), and a laissez-faire style of leadership. Specifically, whereas there was little relation between either EQ-i score and laissez-faire style for males, females high is Stress Management were much less likely to incorporate a laissez-faire style of leadership ($\beta=-1.70$), whereas females low in optimism were more likely to use a laissez-faire style of leadership ($\beta=+1.78$).

CHAPTER V: DISCUSSION

This chapter contains the discussion of the results of this study. Furthermore, the implications for practice, limitations of the research, and future research related to emotional intelligence and leadership styles of early childhood professionals are discussed.

The purpose of this study was to measure the relationship between emotional intelligence and the leadership styles (transformational, transactional, and laissez-faire) of early childhood professionals. Moreover, the study examined the predictive ability of two different conceptualizations of the emotional intelligence construct, the ability model as measured by the MSCEIT, and the mixed-model as measured by the EQ-i in relation to leadership style. Finally, the study sought to identify which EI measure was a better predictor of leadership style. The intent of the research was to establish a predictive relationship between leadership behavior and the level of emotional intelligence in leaders that work in the field of early childhood education. Mayer and Geher (1996) suggested individuals who possess high levels of emotional intelligence might choose occupations that rely on EI, such as the teaching field. This study did not replicate any previous research in the early childhood field. Research in the area of early childhood leadership styles and behaviors is sparse.

The design of this study differed from most other studies in that it evaluated the relationship between emotional intelligence by using the mixed-model of EI, as well as, the ability model of EI and the full range of leadership behavior model. Other research studies have focused on the relationship between EI using either the mixed-model or the ability model and specifically only the relationship to transformational leadership style.

This study attempted to look for correlations between emotional intelligence and the full range leadership model which includes transformational, transactional, and laissez-faire leadership styles. This study and other studies (Burbach, 2004; Coetzee & Schaap, 2005; Palmer et al., 2001) did find some significant correlations between the ability model of emotional intelligence and the full range leadership model. Likewise, correlations have been found between the mixed-model of emotional intelligence and transformational leadership (Barling et al., 2000; Sivanathan & Fekken, 2001). Conversely, this study found some correlations between mixed-model of emotional intelligence and laissez-faire leadership styles where other studies have not.

The EQ-i descriptive statistics (Table 8) revealed the DoD sample had a higher total mean EQ score (M=535.11) than the one reported in the Bar-On EQ-i technical manual (M=465.31). Eighty-eight percent of the participants in this study were female and the higher scores in both the EQ-i total score and Interpersonal EQ subscale is probably due to the large number of female participants. Bar-On (2004) contends that women tend to score higher on the Interpersonal EQ subscale. Other researchers have found that females score higher than males on measures of emotional intelligence (Mandell & Pherwani, 2003; Mayer et al., 2004; Mayer & Geher, 1996). Therefore, this may indicate the females in this study are better at managing their emotions and the emotions of others; showing more empathy; are generally more socially responsible; and have better interpersonal skills as compared to the males in the DoD study (Bar-On, 2004; Downey et al., 2005; Mandell & Pherwani, 2003).

Significant positive and negative correlations (Table 14) were found between the EQ-i and the full-range leadership behaviors that were measured by the MLQ-5X.

Significant positive correlations were found between transformational leadership style and the EQ-i. There were significant correlations between Intrapersonal, Interpersonal, Adaptability, General Mood, and Stress Management composite scores and the total overall EQ score. Buford (2001) also found the same relationship between the EQ-i composite scale scores and transformational leadership style. According to Megerian and Sosik (1996), the relationship between transformational leadership and EQ involves leaders considering the emotions and social interactions as important factors in motivating subordinates within an organization. Bar-On (2004) suggested individuals who score high on Adaptability, "are generally flexible, realistic, effective in understanding problematic situations, and competent at arriving at adequate solutions and can generally find good ways of dealing with everyday difficulties" (p. 44).

Conversely, there were significant negative correlations with the EQ-i composite scores and laissez-faire leadership style. Laissez-faire leadership style was negatively correlated with Intrapersonal, Interpersonal, Adaptability, General Mood, and Stress Management composite scores and the total overall EQ score. These negative correlations would indicate the higher one is in emotional intelligence the least likely they are to exhibit a laissez-faire leadership style.

There were no significant relationships between the EQ-i composite scores and transactional leadership. The lack of a relationship with transactional leadership may derive from the fundamental reason that this type of leadership behavior is not concerned with the emotional needs of the subordinates, but is tied to the transactions and the exchange of extrinsic rewards for getting things accomplished. Transactional leadership

behaviors focus on logical thinking (Downey et al., 2005) and the implementation of negative penalties on subordinates in order to complete work task (Bass, 2002).

The descriptive statistics for the MSCEIT for the DoD study sample were compared to the normative data in the MSCEIT technical manual, the sample mean scores were lower in two Branches: Perceiving Emotions and Facilitating Thought. Additionally, the Area score of Experiential EIQ was lower than the score reported in the MSCEIT technical manual which is not surprising considering the two Branch scores which encompass this Area score are Perceiving Emotions and Facilitating Thought which were both low at the individual Branch level. One possible explanation for these scores is the general comment made by many of the participants that they had never taken a test like the MSCEIT. The DoD sample found the Face Task (section A) difficult to answer because it had pictures that required the participant to identify how a person feels based on the facial expression in the picture. Furthermore, the DoD sample had difficulty with the Picture Task (Section E) where they had to respond to pictures by deciding what emotions were associated with certain images or landscapes (Mayer et al., 2002). Moreover, the low mean score at the Area level of Experiential EIQ was reflective of their inability to read and express emotions and transfer that information to other sensory experiences such as colors or sounds. Because the educational level of DoD sample was high, it may have caused them to over think the questions. In addition, the age and education levels were different between the MSCEIT normative sample and the DoD sample. Seventy-two percent of the MSCEIT normative sample participants were under 30 years old, while approximately 80% of the DoD sample were over the age of 30. Furthermore, only 20.4% of the MSCEIT normative sample had college degrees whereas

63% of the DoD sample held college degrees. Overall, the DoD sample was older and highly educated in comparison to the MSCEIT normative sample. The differences in the ages and education level could account for the differences in the mean scores; however according to Bar-On (2004) the DoD sample scores should have been higher not lower because the DoD sample participants were older.

Significant negative correlations (Table 14) were found between the MSCEIT and the full-range leadership behavior scores as measured by the MLQ-5X. There were significant negative correlations found between laissez-faire leadership behaviors and the Branch scores of Facilitating Thought and Understanding Emotions. Laissez-faire leadership behaviors show evidence of a "hands off" type of leadership, little interaction or exchanges with subordinates and they relinquish responsibility for task (Northouse, 2004). Hence, the nonexistence of leadership and a lack of emotional intelligence as it relates to experiencing emotions (Facilitating Thoughts) and having knowledge of how emotions help with dealing with people (Understanding Emotions) in this study is consistent with the findings of Gardner and Stough (2002). According to Gardner and Stough (2002), laissez-faire leaders are unable to express their feelings, identify and understand the emotions of themselves and others. The MSCEIT Area score of Strategic Emotional Intelligence and the total overall Emotional Intelligence score indicated a negative correlation with laissez-faire leadership behaviors. Once again these are not unexpected, since laissez-faire leadership behaviors typically are not concerned about subordinates' emotions. The DoD sample data results illustrates their inability to understand and identify emotions of others and to manage their emotions and the emotions of others as related to the laissez-faire leadership behaviors. Downey et al.,

(2006) suggested, "An absence of leadership ability could be linked with a deficit in EI" (p. 252).

The Branch score of Facilitating Thought is negatively correlated with transactional leadership style. According to Yukl (2002), transactional leadership involves an exchange process that results in the subordinate complying with the leader's request, enforcement of rules, and the use of contingent rewards. The negative relationship between transactional leadership and Facilitating Thought is not unexpected given that the branch of Facilitating Thought encompasses use of emotions for creativity and problem-solving which are not characteristics of transactional leadership behaviors. Furthermore, the Area score of Experiential EIQ indicated a negative correlation with transactional leadership behavior. Again, this is not unanticipated since this Area score includes the Branch scores of Perceiving Emotions and Facilitating Thought. Transactional leaders' behaviors are based on extrinsic rewards and a clear set of expectations. The expression of emotions (Perceiving) and using emotions (Facilitating) to improve thinking are not abilities that are espoused by the transactional leaders (Downey et al., 2005).

The study attempted to provide additional insight into the possible relationship of emotional intelligence and leadership behavior by examining the moderating effects of demographic factors on the EQ-i. There was a significant moderating effect of gender on the relation between Stress Management and General Mood EQ and laissez-faire leadership style. The results indicate that males are able to handle stress without losing control and work well under pressure. The males in the DoD sample who were high in Stress Management tended to exhibit more of a laissez-faire leadership style.

Additionally, females in the DoD sample exhibited a higher level of General Mood and were less likely to use a laissez-faire leadership style. Individuals who show a high level of General Mood is generally optimistic; has a happy disposition; and is self-motivated. Furthermore, it is an important facilitator of managing emotions and solving problems (Bar-On, 2004). These characteristics are in direct contradiction of the definition of laissez-faire leadership behaviors which entails going with the flow of the organization because he or she defers leadership responsibilities and avoids making decisions.

The study attempted to provide additional insight into the possible relationship of emotional intelligence and leadership behavior by examining the moderating effects of demographic factors on the MSCEIT Branch scores. The results indicated a moderating effect of gender and the relation between Facilitating Thought and transformational leadership style. This relationship plays against the stereotype of females being more emotional than males. The results suggest that females in this sample felt that females need to appear less emotional in order to get things done. Conversely, the males in the DoD sample appeared to show more emotions in their leadership style.

Moreover, the study made an attempt to provide additional insight into the possible relationship of emotional intelligence and leadership behavior by examining the moderating effects of demographic factors on the MSCEIT Area scores. The results indicate a moderating effect of gender and the relation between both Strategic EIQ and Experiential EIQ. There was a positive relationship for females between Strategic Emotional Intelligence and transformational leadership style. This relationship for the DoD sample females appears to indicate that a leader that is guided by empathy and understands the significances of particular emotions exhibited by individuals in their

organization can use this information to motivate and communicate in ways that inspire the people that work for them. Conversely, the males in the DoD study were not as in tune to the significant emotions displayed by individuals; therefore not using them as a strategic tool to encourage individuals in the work-place. To the contrary, females in the DoD study exhibited a negative relationship between Experiential emotional intelligence and transformational leadership and males demonstrated a positive relationship. These results are not surprising since the mean scores in this area were low which was attributed to participants not being comfortable with these types of assessment questions, and they found the questions very confusing to interpret.

Additionally, the results suggested a moderating effect of job experience on the relation between the EEIQ scores of the MSCEIT and transformational leadership style. This relationship indicates that the more years of experience the participant had in a leadership position had the potential to increase their level of emotional intelligence, which in turn, would cause them to exhibit a transformational leadership style. This finding indicates that with more years of experience the DoD sample were able to learn more transformational leadership behaviors through their ability to acquire and manipulate emotional information in a leadership setting.

Finally, this study developed the best models for predicting transformational leadership, transactional leadership and laissez-faire style of leadership. This study acknowledged that emotional intelligence measured by the EQ-i and MSCEIT, and in some cases moderated by demographic variables of gender and years of experience, predicts a full range of leadership behaviors. The explained variance ranged from 9% to 34%.

The best predictive model for the transformational leadership style suggests a high score in transformational leadership is conversely related to the amount of job experience. The MSCEIT Strategic emotional intelligence score is positively related to the EQ-i General Mood score. Furthermore, the Strategic EIQ score is moderated by gender. Moreover, Experiential EIQ is moderated by both gender and job experience. These scores explained 34% of the variance in the transformational leadership style. These findings indicate women have the ability to understand emotional informational and use it strategically for planning where their organization is headed which is common in transformational leaders (Northouse, 2004). Additionally, job experience has a slight relationship to Experiential emotional intelligence. With more job experience in leadership positions, women are better able to perceive emotional information and exhibit transformational leadership behaviors.

In summary, the study appears to indicate that the ability to predict leadership style, specifically transformational, is more predictive with the mixed-model conceptualization of emotional intelligence (EQ-i) and less with the ability model conceptualization (MSCEIT) which defines EI as cognitive abilities (Bass, 2002). The research evaluated the relationship between emotional intelligence and leadership style of early childhood professionals. Based on the results of this study, there is a predictive relationship between emotional intelligence and leadership style. Additionally, the research results suggest that the demographic variables of gender and years of job experience have a moderating effect on the relationship between EI and leadership styles. The demographic variables of degree type and age do not have a moderating effect on the relationship between EI and leadership style.

Implications

There has been little research in the area of leadership behaviors of early childhood program administrators. This research study provides an opportunity for the field to begin to understand the importance of providing early childhood professionals with information about leadership practices within the field. Early Childhood professionals need to look at the quality of the leaders within the field and look to improving the consistency and availably of leadership training opportunities.

This study has implications for the early childhood education field. There are some researchers who believe emotional intelligence and leadership behaviors can develop over time (Riggio & Reichard, 2008). If this premise is true, then leadership training programs need to be developed and incorporated into long range planning of the early childhood profession.

Limitations

One limitation of the study is the uncontrolled variance in the organizational culture. All the study participants worked for the DoD; however, the military installations they worked on were located in different countries in Europe and different states in the US. Furthermore, the participants worked for different branches of DoD (Army, Air Force, Navy) The different culture and geographic location of the installations may have an impact on the ratings provided on the assessments.

Additionally, the uniqueness of the DoD programs may be ill-suited for making generalizations to other programs outside the DoD structure. Drawing generalizations from this study is not the intent, because of its narrow focus. The study had a small homogeneous sample of predominately-white female managers who work in a military

installation setting. Moreover, the DoD programs have specific guidelines for education and annual training requirements for individuals in leadership positions.

Another study limitation is the fact that only the leaders completed two measures of emotional intelligence and a self-report of their own leadership style. The research design did not include supervisor and subordinate ratings of the participants in regards to leadership behavior and levels of emotional intelligence. Additional 360 degree observational data could provide useful information to the researcher.

Future Research.

This is the first study where the research design intentionally used early childhood education professionals to measure their leadership behaviors and levels of emotional intelligence. Researchers within the early childhood education field need to conduct further research into identifying what abilities and skills are needed to be an effective leader. Furthermore, more research needs to be done to identify specific components of emotional intelligence that can be taught to help increase leadership effectiveness. Early childhood professionals need to expand their knowledge and understanding of leadership skills and behaviors. Additionally, research could look at the possible implications for recruiting, training, and developing leaders in the field.

Significant contributions to EI research could be made by future student researchers; however, the high cost of purchasing and scoring of the MSCEIT and EQ-i make their use by students too expensive and difficult to use. Other emotional intelligence measures that are more accessible and more affordable to researchers should be used to measure the emotional intelligence construct.

Further research using a similar design could replicate this study with a different population (e.g., non-DoD early childhood) might provide valuable information that could be generalized to a larger population. Furthermore, a longitudinal study that tracks individuals who received training to increase emotional competencies and the development of a leadership style could be very valuable.

Lastly, the EI construct has several different definitions and various measurements to operationalize the construct and different terminology to describe the construct. These aforementioned variables make the construct ambiguous and confusing. It was clear from this study that definitions of the construct and measurements used produced different results. Table 14 demonstrates that all EQ-i scales have more significant correlations between transformational (positive correlations) and laissez-faire (negative correlations) than does the MSCEIT. However, there were no significant correlations between the EQ-i scales and transactional leadership which is consist with Gardner and Stough (2002). Whereas the MSCEIT had no significant correlations with transformational leadership; one branch score and one area score negatively correlated with transactional; and two branch scores, one area score, and the total MSCEIT score all negatively correlated with laissez-faire. From this study's point of view, the mixed correlational pattern of the two measures is perplexing. It is clear that the MSCEIT scales do not correlate with the transformational leadership whereas the EQ-i scales did. The differences in the relationships between the two emotional intelligence measures and the full range leadership style indicate that they are measuring different constructs.

Table 6. Demographic Representation of DoD Early Childhood Professionals (*N*=187)

Variable	*n*	Percentage
Gender		
Male	23	12%
Female	164	88%
Age		
25-34	38	20%
35-44	56	32%
45-54	55	30%
55+	31	18%
Years Leadership Experience		
0-3	45	25%
4-6	36	20%
7-10	25	13%
11-14	25	15%
15+	49	27%
Education -Degree		
ECE/ELEM	113	63%
Non-ECE/ELEM	67	37%
Position Titles		
Facility Director	85	45%
Trainer	41	22%
Coordinator	16	9%
Program Administrator	28	15%
Other	17	9%
Years Working for the DoD		
< 1 yr	2	1%
1-3 yrs	27	16%
4-6 yrs	32	19%
7-10 yrs	27	16%
11-14 yrs	24	14%
> 15 years	56	34%
Participants with more than one degree		
No	89	48%
Yes	98	52%
Highest ECE/ELM degree held		
None	70	37%
AA/AS	25	13%
BA/BS	65	35%
Masters	26	14%
Ph.D	1	1%

Note. ECE/ELM=Early Childhood Education/Elementary

Table 7. Interscale Correlation on the EQ-i Subscales for DoD Early Childhood Professionals (N=186)

EQ-I	ES	AS	SR	SA	IN	EM	IR	RE	PS	RT	FL	ST	IC	HA	OP	PI	NI
ES	(.69)	.58	.57	.67	.35	.44	.61	.36	.39	.54	.41	.53	.28	.54	.57	.15	-.43
AS		(.74)	.53	.51	.52	.08	.35	.14	.30	.45	.39	.58	.14	.33	.52	.02	-.33
SR			(.85)	.63	.44	.20	.54	.31	.48	.50	.50	.64	.30	.62	.65	.23	-.40
SA				(.80)	.43	.43	.54	.46	.51	.50	.41	.56	.27	.61	.71	.14	-.47
IN					(.73)	.16	.32	.35	.36	.47	.42	.56	.39	.35	.49	.02	-.40
EM						(.62)	.55	.70	.34	.29	.27	.20	.29	.39	.38	.11	-.36
IR							(.79)	.47	.44	.46	.47	.41	.36	.67	.48	.16	-.44
RE								(.71)	.43	.42	.30	.28	.36	.43	.40	.05	-.52
PS									(.80)	.54	.36	.55	.46	.48	.59	.25	-.49
RT										(.69)	.48	.62	.51	.45	.51	.07	-.68
FL											(.68)	.54	.33	.45	.46	.04	-.31
ST												(.77)	.41	.47	.73	.16	-.47
C													(.78)	.37	.25	.11	-.46
IA														(.76)	.51	.20	-.49
)P															(.74)	.16	-.45
'I																(.61)	-.05
.NI																	(.76)

Note: Numbers in parentheses represent the internal consistency coefficients examined with Cronbach Alpha.

PI=Positive Impression; NI=Negative Impression; SR=Self Regard;ES=Emotional Self-Awareness; AS=Assertiveness; IN=Independence; SA=Self-Actualization; EM=Empathy; RE=Social Responsibility; IR=Interpersonal Relationship; RT=Reality Testing; FL=Flexibility; PS=Problem Solving; ST=Stress Tolerance; IC=Impulse Control; OP=Optimism; HA=Happiness.

Table 8. EQ-i Descriptive Statistics in Raw Scores for DoD Early Childhood Professionals (*N*=186)

EQ-I	Mean	SD	Skewness	Kurtosis
PI	22.32	4.88	-.003	-.47
NI	10.25	3.78	1.42	1.81
Total EQ	535.12	46.55	-.51	-.07
Intrapersonal EQ(RAeq)	161.96	18.32	-.42	-.39
Interpersonal EQ (EReq)	126.86	10.83	-.74	.02
Adaptability EQ (ADeq)	104.93	10.54	-.34	-.15
Stress Management EQ (SMeq)	67.86	8.01	-.27	-.31
General Mood EQ (GMeq)	73.51	7.01	-.77	.44
ES	31.81	4.39	-.37	-.26
AS	26.07	4.36	-.25	-.33
SR	36.42	5.70	-.59	-.23
SA	39.61	4.57	-.85	.02
IN	28.05	4.19	-.59	-.03
EM	35.06	3.35	-.49	-.60
IR	46.19	5.53	-.56	-.26
RE	45.62	3.96	-1.16	1.34
PS	33.51	4.17	-.71	.81
RT	41.57	4.62	-.35	-.35
FL	29.85	4.38	.01	-.32
ST	31.25	4.33	-.12	-.37
IC	36.61	5.18	-.72	.27
HA	39.26	4.32	-.77	.03
OP	34.25	3.74	-.65	.14

Note. PI=Positive Impression; NI=Negative Impression; SR=Self Regard;ES=Emotional Self-Awareness; AS=Assertiveness; IN=Independence; SA=Self-Actualization; EM=Empathy; RE=Social Responsibility; IR=Interpersonal Relationship; RT=Reality Testing; FL=Flexibility; PS=Problem Solving; ST=Stress Tolerance; IC=Impulse Control; OP=Optimism; HA=Happiness.

Table 9. Intercorrelations Among MLQ 5x Factor Scores (*N*=183)

MLQ	II(A)	II(B)	IM	IS	ICM	CR	MBEA	MBEP	LF	EE	EFF	SAT
II(A)	(.56)	.55	.56	.44	.48	.61	.09	.04	-.09	.55	.51	.44
II(B)		(.61)	.62	.56	.55	.59	.09	.01	-.23	.62	.57	.57
IM			(.67)	.59	.53	.60	.04	-.06	-.27	.59	.65	.58
IS				(.70)	.59	.49	.08	.06	-.17	.51	.50	.47
ICM					(.65)	.50	-.07	.04	-.08	.56	.55	.53
CR						(.54)	.14	.08	-.14	.53	.52	.56
MBEA							(.67)	.12	.07	.07	.00	-.03
MBEP								(.43)	.43	-.08	-.14	-.06
LF									(.42)	-.24	-.38	-.26
EE										(.70)	.68	.59
EFF											(.67)	.64
SAT												(.64)

Note. Numbers in parentheses represent the internal consistency coefficients examined with Cronbach Alpha. II(A) = Idealized Influence (Attributed); II(B)= Idealized Influence(Behavior);IM = Inspirational Motivation; IS = Intellectual Stimulation; ICM = Individualized Consideration; CR = Contingent Reward; MBEA = Management-by-Exception (Active); MBEA = Management-by-Exception(Passive); LF = Laissez-Faire; EE = Extra Effort; EFF = Effectiveness; SAT = Satisfaction.

Table 10. MLQ 5X Descriptive Statistics in Raw Scores for DoD Early Childhood Professionals (*N*=183)

MLQ	Mean	SD	Skewness	Kurtosis
II(A)	3.05	.60	-.40	.05
II(B)	3.19	.56	-.54	-.09
IM	3.34	.53	-.64	-.16
IS	3.28	.56	-.69	.20
ICM	3.50	.48	-.93	.70
CR	3.23	.63	-.82	.34
MBEA	1.66	.81	.40	-.05
MBEP	1.12	.61	.38	-.26
LF	.62	.50	.60	.21
EE	3.13	.62	-.36	-.38
EFF	3.35	.47	-.34	-.44
SAT	3.35	.56	-.92	1.72

Note. II(A) = Idealized Influence (Attributed); II(B)= Idealized Influence(Behavior);IM = Inspirational Motivation; IS = Intellectual Stimulation; ICM = Individualized Consideration; CR = Contingent Reward; MBEA = Management-by-Exception (Active); MBEA = Management-by-Exception(Passive); LF = Laissez-Faire; EE = Extra Effort; EFF = Effectiveness; SAT = Satisfaction

Table 11. Interscale Correlation on the MSCEIT for DoD Early Childhood Professionals (N=183)

MSCEIT	FA	PC	FC	SE	CH	BL	EMM	ER	PEiq	FEiq	UEiq	MEiq	EEiq	SEiq	TOT_MSCEIT
FA	(.71)	.13	.20	.28	.30	.16	.11	.19	.57	.30	.25	.20	.52	.27	.44
PC		(.88)	.16	.45	.30	.35	.30	.24	.88	.40	.37	.33	.77	.42	.66
FC			(.39)	.35	.21	.24	.27	.12	.23	.77	.26	.24	.55	.30	.47
SE				(.53)	.39	.40	.30	.23	.51	.86	.46	.33	.78	.49	.70
CH					(.58)	.51	.35	.22	.39	.38	.82	.35	.45	.77	.70
BL						(.52)	.37	.21	.36	.40	.91	.35	.44	.84	.74
EMM							(.30)	.26	.30	.36	.41	.73	.38	.61	.57
ER								(.18)	.28	.22	.24	.84	.30	.53	.47
PEiq									(.86)	.47	.43	.37	.89	.48	.75
FEiq										(.60)	.45	.35	.82	.49	.73
UEiq											(.70)	.40	.51	.93	.83
MEiq												(.41)	.42	.71	.65
EEiq													(.86)	.56	.87
SEiq														(.71)	.90
TOT_MSCEIT															(.87)

Note. Numbers in parentheses represent the internal consistency coefficients examined with Cronbach Alpha.

FA= Faces; FC=Facilitation; CH=Changes; EMM=Emotional Management; PC=Pictures; SE= Sensations; BL=Blends; ER=Emotional Relations; PEiq=Perceiving Emotions; FEiq=Facilitating Thought; UEiq=Understanding Emotions; MEiq=Managing Emotions; EEiq=Experiential Emotion Intelligence; SEiq=Strategic Emotional Intelligence: TOT_MSCEIT=Total Overall Score Emotional Intelligence.

Table 12. MSCEIT Descriptive Statistics in Raw Scores for DoD Early Childhood Professionals (*N*=183)

MSCEIT	Mean	SD	Skewness	Kurtosis
TASK SCORES:				
FA	.36	.08	-.90	.52
PC	.52	.14	-1.81	2.86
FC	.38	.08	-.54	1.65
SE	.40	.10	-1.01	.59
CH	.61	.11	-.55	.31
BL	.58	.16	-.77	.67
EMM	.40	.07	-.07	-.22
ER	.41	.09	-.25	.83
BRANCH SCORES				
PEiq	.44	.09	-1.41	2.00
FEiq	.39	.07	-1.12	1.74
UEiq	.59	.12	-.78	.63
MEiq	.41	.06	-.42	.28
AREA SCORES				
EEiq	.41	.07	-1.52	2.85
SEiq	.50	.08	-.76	.63
TOTAL OVERALL SCORE				
TOTMSCEIT	.46	.06	-1.25	1.87

Note. FA= Faces; FC=Facilitation; CH=Changes; EMM=Emotional Management; PC=Pictures; SE= Sensations; BL=Blends; ER=Emotional Relations; PEiq=Perceiving Emotions; FEiq=Facilitating Thought; UEiq=Understanding Emotions; MEiq=Managing Emotions; EEiq=Experiential Emotional Intelligence; SEiq=Strategic Emotional Intelligence: TOTMSCEIT=Total Overall Score Emotional Intelligence.

Table 13. Correlations between the MSCEIT and EQ-I (N=180)

MSCEIT	PEiq	FEiq	UEiq	MEiq	SEiq	EEiq
EQ-i						
RAeq	.13	**.17***	.12	.13	.14	**.18***
EReq	**.18***	**.23***	.10	.14	.14	**.24***
ADeq	.16	**.24***	.09	**.19***	.15	**.23***
GMeq	**.19***	**.22***	**.20***	**.20***	**.24***	**.24***
SMeq	.10	**.20***	.03	.14	.07	**.17***

Note. MSCEIT Abbreviations: PEiq=Perceiving Emotions; FEiq=Facilitating Thought; UEiq=Understanding Emotions; MEiq=Managing Emotions; EEiq=Experiential Emotion Intelligence; SEiq=Strategic Emotional Intelligence. **EQ-i Abbreviations**: RAeq=Intrapersonal Composite; EReq= Interpersonal Composite; ADeq= Adaptability Composite; GMeq=General Mood; SMeq= Stress Management. *$p<0.05$.

Table 14. Interscale Correlation of the EQ-I & MLQ and Interscale Correlation of the MSCEIT & MLQ for DoD Early Childhood Professionals (*N*=180)

	Transformational	Transactional	Laissez-faire
EQ-I Composite Scales			
RAeq	.42*	.01	-.41*
EReq	.36*	-.07	-.24*
ADeq	.40*	-.00	-.40*
GMeq	.49*	.05	-.32*
SMeq	.29*	-.06	-.28*
TOTeq	.46*	-.02	-.41*
MSCEIT Branch Scores			
PEiq	.01	-.09	-.06
FEiq	.09	-.16*	-.15*
UEiq	.04	-.08	-.21*
MEiq	.12	-.07	-.11
MSCEIT Area Scores			
EEiq	.06	-.15*	-.12
SEiq	.08	-.09	-.21*
TOT_MSCEIT	.08	-.13	-.19*

Note. RAeq= Intrapersonal Composite; EReq= Interpersonal; ADeq=Adaptability Composite; GMeq=General Mood Composite; SMeq=Stress Management; PEiq=Perceiving Emotions; FEiq=Facilitating Thought; UEiq=Understanding Emotions; MEiq=Managing Emotions; EEiq= Experiential Emotional Intelligence; SEiq=Strategic Emotional Intelligence; TOT_MSCEIT =Total Overall Emotional Intelligence. * $p<.05$.

Table 15. Descriptive statistics for Demographic Factors on the MLQ-5X Outcomes (*N*=180)

		Transformational		Transactional		Laissez-faire	
	n	M	SD	M	SD	M	SD
Gender							
Male	21	3.19	.47	2.05	.40	.75	.50
Female	159	3.29	.43	2.00	.44	.60	.47
Years in Leadership							
0 to 3 yrs	45	3.21	.42	1.95	.43	.56	.49
4 to 6 yrs	36	3.20	.47	1.95	.40	.52	.44
7 to 10 yrs	25	3.31	.35	2.02	.49	.63	.56
11 to 14 yrs	25	3.24	.50	2.00	.45	.66	.53
15+ yrs	49	3.39	.42	2.09	.44	.67	.44
Age							
25-34 yrs	38	3.19	.37	1.89	.40	.66	.50
35-44 yrs	56	3.20	.48	2.00	.40	.58	.47
45-54 yrs	55	3.33	.40	2.05	.48	.60	.52
55+ yrs	31	3.41	.44	2.07	.48	.62	.43
Degree							
ECE/ELEM	113	3.34*	.43	2.03	.42	.60	.50
Other	67	3.17*	.43	1.97	.46	.62	.46

Note. ECE/ELEM=Early Childhood Education/Elementary Education. *=meaningful effect.

Table 16. Incremental Validity of the MSCEIT for Predicting Leadership Styles controlling for EQ-i Scale Scores (N=180)

	Transformational		Transactional		Laissez-faire	
	Branch	Area	Branch	Area	Branch	Area
	β	β	β	β	β	β
EQ-I						
RAeq	0.05	0.05	-0.04	-0.04	-0.33	-0.33
EReq	0.03	0.03	-0.18	-0.18	0.04	0.04
ADeq	0.16	0.16	0.06	-0.06	-0.30	-0.30
GMeq	0.38	0.38	0.24	0.25	0.07	0.07
SMeq	-0.11	-.0.11	-0.15	-0.15	0.08	0.08
R^2	.25[A]	.25[A]	.03	.03	.20[A]	.20[A]
MSCEIT (Controlling for EQ-i)						
PEiq	-.10	--	-.03	- -	0.09	--
FEiq	0.03	--	-.13	--	-0.09	--
UEiq	-0.05	--	-.04	--	-0.20	--
MEiq	0.06	--	-0.03	--	-0.01	--
EEiq	--	0.0	--	-0.06	--	-0.19
SEiq	--	-0.07	--	-0.13	--	-0.07
R^2	.26	.26	.06	.06	.24	.23

A= Denotes significant incremental validity of MSCEIT scales controlling for EQ-i scale scores

Table 17. Incremental Validity of EQ-i for Predicting Leadership Styles controlling for MSCEIT Scale Scores (N=180)

	Transformational		Transactional		Laissez-faire	
	Branch	Area	Branch	Area	Branch	Area
	β	β	β	β	β	β
MSCEIT						
PEiq	-0.06	--	-.02	- -	0.07	
FEiq	0.09	--	-.15	--	-0.09	
UEiq	-0.02	--	-.00	--	-0.19	
MEiq	0.11	--	-0.2	--	-0.03	
EEiq	--	0.07	--	-0.02	--	-0.20
SEiq	--	0.02	--	-0.14	--	-0.00
R^2	.02	.01	.03	.02	.05[A]	.04[A]
EQ-I (Controlling for MSCEIT)						
RAeq	0.05	0.04	-0.06	-0.06	-0.33	-0.34
EReq	0.04	0.04	-0.16	-0.17	0.03	0.03
ADeq	0.16	0.17	0.09	0.09	-0.30	-0.30
GMeq	0.39	0.39[A]	0.28	0.29	0.13	0.13
SMeq	-0.12	-0.11	-0.15	-0.15	0.05	0.05
R^2	.26[A]	.25[A]	.06	.06	.24[A]	.23[A]

A=Denotes significant incremental validity of EQ-i scales controlling for MSCEIT scale scores

Table 18. Moderating Effects of Demographic Factors on EQ-i Composite Scores and Full Range Leadership

	Transformational		Transactional		Laissez-Faire	
	β	R^2	β	R^2	β	R^2
Sex	-0.01	.01	-0.03	0.0	-0.05	.01
Sex + EQI Main Effects		.25[A]	-	.03		.20[A]
Sex by EQ-I Interaction		.28		.05		.25[A]
Sex *RAEQ	-2.25		-0.52		0[B]	
Sex * EREQ	0.28		0.41		0[B]	
Sex * ADEQ	-0.93		-1.55		0[B]	
Sex * GMEQ	2.01		1.60		1.69[A]	
Sex*SMEQ	1.00		0.45		-1.93[A]	
Jobyr	0.12	.02	0.11	.02	0.16	.02
Jobyr + EQI Main Effect		.26[A]		.05		.23[A]
Jobyr by EQ-I Interaction		.30		.12[A]		.24
Jobyr*RAEQ	-0.57		0[B]		-0.60	
Jobyr*EREQ	-0.98		-2.83*		0.28	
Jobyr*ADEQ	-0.72		0[B]		-0.44	
Jobyr*GMEQ	2.65		3.70*		-0.17	
Jobyr*SMEQ	1.27		0[B]		1.43	
Age	0.14	.04	0.15	.02	0.02	.00
Age + EQI Main Effect		.27[A]		.05		.20[A]
Age by EQ-I Interaction		.29		.10		.24
Age*RAEQ	-1.89		0.89		-0.87	
Age*EREQ	0.14		-2.70		-0.36	
Age*ADEQ	0.39		-1.09		0.01	
Age*GMEQ	2.34		2.67		-0.46	
Age*SMEQ	-0.03		0.58		2.35	
Degree	-1.51	.03	1.87	.00	0.89	.00
Degree + Main Effect		.29		.08		.21[A]
Degree by EQ-I Interaction		.29		.08		.21
Degree*RAEQ	-0.23		-1.60		-0.58	
Degree*EREQ	0.42		0.14		-1.06	
Degree*ADEQ	0.50		0.39		-0.50	
Degree*GMEQ	0.95		2.23		1.20	
Degree*SMEQ	0.02		1.07		0.06	

Note: A = Denotes significant incremental validity over main effects model. B= Coefficients constrained to zero via model reduction. p<.05

Table 19. Moderating Effects of Demographic Factors on MSCEIT Branch Scores and Full Range Leadership

	Transformational		Transactional		Laissez-Faire	
	β	R^2	β	R^2	β	R^2
Sex	0.05	.00	-0.00	.00	-0.09	.01
Sex + MSC-1 Main Effects		.02		.02		.06
Sex by MSC -1 Interaction		.10[A]		.06		.09
Sex*PEIQ	0[B]		0.21		0.04	
Sex*FEIQ	-1.06[A]		-1.04		0.46	
Sex*UEIQ	0[B]		1.07		0.54	
Sex*MEIQ	0[B]		-0.62		-0.49	
Jobyr	0.15	.02	0.13	.02	0.13	.02
Jobyr +MSC-1 Main Effects		.04		.04		.07[A]
Jobyr by MSC-1 Interaction		.08		.05		.07
Jobyr*PEIQ	0.83		0.54		-0.12	
Jobyr*FEIQ	0.42		-0.34		0.14	
Jobyr*UEIQ	0.40		-0.00		-0.04	
Jobyr*MEIQ	-0.50		0.12		0.12	
Age	0.20	.04	0.14	.02	-0.04	.00
Age + MSC-1 Main Effects		.06		.05		.05
Age by MSC-1 Interaction		.07		.07		.08
Age*PEIQ	-0.23		0.85		-0.20	
Age*FEIQ	-0.62		-0.37		0.60	
Age*UEIQ	0.59		0.40		-0.45	
Age*MEIQ	-0.34		-0.31		1.05	
Degree	0.19	.03	0.07	.00	-0.02	.00
Degree + MSC-1 Main Effects		.06		.03		.05
Degree by MSC-1 Interaction		.08		.06		.07
Degree*PEIQ	0.13		-0.76		-0.21	
Degree*FEIQ	0.92		0.57		0.28	
Degree*UEIQ	0.12		0.53		0.64	
Degree*MEIQ	0.81		0.31		0.10	

Note. A = Denotes significant incremental validity over main effects model. B= Coefficients constrained to zero via model reduction. $p<.05$

Table 20. Moderation Effect of Demographic Information Between MSCEIT Area Scores Full Range Leadership

	Transformational		Transactional		Laissez-Faire	
	β	R^2	β	R^2	β	R^2
Sex	0.06	.00	-0.00	.00	-0.09	.01
Sex + MSC-2 Main Effects		.01		.02		.05[A]
Sex by MSC -2 Interaction		.07[A]		.03		.07
Sex*SEIQ	1.96[A]		1.00		0.43	
Sex*EEIQ	-2.32[A]		-0.88		0.29	
Jobyr	0.15	.02	0.12	.02	0.12	.02
Jobyr +MSC-2 Main Effects		.03		.04		.05[A]
Jobyr by MSC-2 Interaction		.06[A]		.04		.06
Jobyr*SEIQ	0[B]		-0.02		0.04	
Jobyr*EEIQ	1.32[A]		0.33		0.03	
Age	0.20	.04	0.13	.07	-0.05	.00
Age + MSC-2 Main Effects		.05		.04		.04[A]
Age by MSC-2 Interaction		.06		.04		.04
Age*SEIQ	0.51		0.15		0.05	
Age*EEIQ	-0.82		0.47		0.44	
Degree	0.18	.03	0.07	.00	-0.21	.00
Degree + MSC-2 Main Effects		.04		.03		.04[A]
Degree by MSC-2 Interaction		.06		.04		.06
Degree*SEIQ	-0.12		0.84		0.90	
Degree*EEIQ	0.86		-0.33		-0.04	

Note: A = Denotes significant incremental validity over main effects model. B= Coefficients constrained to zero via model reduction.

Table 21. Best Predictive Model for Leadership Style

	Transformational		Transactional		Laissez-faire	
	β	R^2	β	R^2	β	R^2
Sex	-.023		---		0.14	
Jobyr	-1.14*		-0.62		---	
Degree	0.11		---		---	
		.05		.02		.01
RAEQ	---		---		-0.32*	
EREQ	---		0.40		---	
GMEQ	0.43*		-0.65*		-0.29	
ADEQ	0.12		---		-0.26*	
SMEQ	-0.04		---		0.60*	
		.27		.03		.20
SEIQ	-0.75*		---		---	
FEIQ	0.14		--		---	
		.28		---		---
SEX*GMEQ	---		---		1.64*	
SEX*SMEQ	---		---		-1.84*	
		---		---		.24
JOBYR*EREQ	---		-2.91*		---	
JOBYR*GMEQ			3.76*		---	
		---		.09		---
SEX*SEIQ	1.81*		---		---	
SEX*EEIQ	-1.63*		---		---	
JOBYR*EEIQ	1.33*		---		---	
		.34		---	---	

Note.: RAEQ= Intrapersonal Composite; EREQ= Interpersonal; ADEQ=Adaptability Composite; GMEQ=General Mood Composite; SMEQ=Stress Management;FEIQ= Facilitating Thought; EEIQ= Experiential Emotional Intelligence; SEIQ=Strategic Emotional Intelligence; JOBYR=Years Experience; DEGREE=Degree in ECE/ELEM.

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