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ACCEPTANCE

This dissertation, THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE, TRANSFORMATIONAL LEADERSHIP, AND EFFECTIVENESS IN SCHOOL PRINCIPALS, by ELIZABETH BOX HEBERT, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree Doctor of Philosophy in the College of Education, Georgia State University.

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ABSTRACT

THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE, TRANSFORMATIONAL LEADERSHIP, AND EFFECTIVENESS IN SCHOOL PRINCIPALS

by
Elizabeth Box Hebert

In the rapidly changing school environment effective principals are needed to make necessary changes while also developing a culture of shared responsibility and community (Hallinger & Heck, 1998; Leithwood & Jantzi, 1999). The correlation between transformational leadership and emotional intelligence was investigated in this quantitative study of school principals. Also included in the research was the investigation of the relationship between each construct and effectiveness as perceived by their teachers. The research sample was composed of 30 elementary, middle, and high school principals and five to seven teachers who worked with each principal from schools within the United States. An emotional intelligence score for the principals was obtained by administering the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). Teachers who worked with each principal completed the rater form of the Multi-Factor Leadership Questionnaire (MLQ-5X). This yielded a mean transformational score, a leader effectiveness score, and scores for other non-transformational leadership styles. Correlations were analyzed to conclude that there is a positive relationship between emotional intelligence and transformational leadership, Pearson's $r(30) = .37, p < .05$. A positive correlational relationship between effectiveness and both emotional intelligence, Pearson's $r(30) = .38, p < .05$, and transformational leadership, Pearson's $r(30) = .90, p < .01$, was also evident. Analyzing the relationship between emotional intelligence and different non-transformational leadership styles yielded mixed results. Findings indicate a

relationship exists between emotional intelligence and contingent reward leadership, Pearson's $r(30) = .38$, $p < .05$, while no significant relationship was evident between emotional intelligence and other leadership styles. Based on the results of the study, it was concluded that principals and future principals could better develop effective leadership skills by becoming more aware of their strengths and weakness in the area of emotional intelligence, along with improving their transformational leadership behaviors.

THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE,
TRANSFORMATIONAL LEADERSHIP, AND
EFFECTIVENESS IN SCHOOL
PRINCIPALS

by
Elizabeth Box Hebert

A Dissertation

Presented in Partial Fulfillment of Requirements for the
Degree of
Doctor of Philosophy
in
Educational Policy Studies
in
the Department of Educational Policy Studies
in
the College of Education
Georgia State University

Atlanta, GA
2010

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ACKNOWLEDGEMENTS

I would like to thank Dr. Chris Oshima, chair of my dissertation committee for her patience and guidance throughout the research process. I would also like to extend my appreciation to my committee members, Dr. Bob Michael, Dr. Mark Jordan, and Dr. Ronda Tighe. I appreciate all of their time and assistance. I must acknowledge Dr. Michael for being instrumental in bringing the co-hort to NGCSU. Without his efforts and unending persistence in seeing this project through, the opportunity to complete this degree would not have been possible. My appreciation also goes out to Dr. David Caruso for his teaching and direction in the area of emotional intelligence.

I would also like to extend my appreciation to all of my colleagues and friends who have encouraged, tolerated and supported me over the past 5 ½ years of study. A special thank you goes out to all of the principals and teachers who participated in the research and made it possible.

Most importantly I thank my husband, Kenny, daughters, Michele and Lindsay, and son-in-laws, Kevin and Rob, for their patience and understanding when this work caused me to be absent or absent-minded. There is no way I could have completed this degree without the love, support, and encouragement of my family and I am forever indebted to them.

Finally, I would like to thank my mother, Jackie Box, for instilling in me the confidence to do whatever I choose to do. Her memory has given me the strength to persevere and to always find possibilities in the most difficult of circumstances.

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ABBREVIATIONS

CR	Contingent Reward
ECI	Emotional Competency Inventory
EI	Emotional Intelligence
EIQ	Emotional Intelligence Quotient
EQ-I	Emotional Quotient Inventory
GFI	Goodness-to-Fit Index
IC	Individualized Consideration
II	Idealized Influence
IM	Inspirational Motivation
IS	Intellectual Stimulation
ISRE	International Society for Research in Emotions
LF	Laissez-Faire
MbE	Management-by-Exception
MEIS	Multi-branch Emotional Intelligence Scale
MHS	Multi-Health Systems
MLQ	Multifactor Leadership Questionnaire
MSCEIT	Mayer-Salovey-Caruso Emotional Intelligence Test
SAT	Scholastic Aptitude Test
SPSS	Statistics for the Social Sciences
TL	Transformational Leadership

CHAPTER 1

THE CHALLENGING CONTEXT OF SCHOOLS

Schools across the nation are in a state of transition as they adapt to a changing environment and increased demands. External forces such as increased accountability, high stakes testing, changing family needs, the technological age, and society's demands upon schools have left educators searching for leaders to help them negotiate through the maze of change and reform. The No Child Left Behind Act of 2001 and the Race to the Top grant (American Recovery and Reinvestment Act of 2009) have brought about new challenges for schools and their leadership. High stakes tests and school report cards are viewed by the community, and conclusions are drawn solely from these reports about whether or not the school is a success. Leithwood and Riehl (2003) accurately note that schools are operating in an environment of heightened concern for student achievement. Schools are being forced to restructure the manner in which they educate students. It is no longer good enough to teach to the majority and ignore the needs of the minority or marginalized. Regardless of how the government and society choose to measure schools, at-risk students and their needs must be addressed, and schools must find better ways to meet this challenge (Smyth, 2006).

Internal and External Demands

Today, students come from diverse family structures. While some students are members of single parent homes, others are being raised by grandparents or have extended families living in one household. Often the lack of an intact family support system leaves parents looking to the schools for help. Students from economically disadvantaged families face enormous obstacles. They tend to have a higher incidence of

residence change, poor and dysfunctional parent-child relationships, peer rejection, and discipline issues (Ackerman, Brown, & Izard, 2003, 2004; Bolger & Patterson, 1995; Conger, et al., 2002; Dubow & Ippolito, 1994; Mistry, Vandewater, Huston, & McLoyd, 2002). These students also often experience more physical and emotional problems and are twice as likely to be retained in a grade and to drop out of school than their peers who are not economically disadvantaged (Ackerman et al., 2003; Alamo, Olson, Frongillo, & Briefel, 2001; Duncan, & Brooks-Gunn, 2000). Research has shown that family financial status is often related to academic success (Ackerman et al., 2004; Duncan, Young, Brooks-Gunn, & Smith, 1998; Schoon et al., 2002). Understanding that students must have their basic needs met before learning takes place (Glasser, 1985; Harvey & Retter, 2002; Maslow, 1943), schools are left to fill in the gaps and fulfill these student needs which must be addressed before they can learn. Many times schools are responsible for the nutritional, physical, and emotional needs of students whose families are in a state of turmoil. This situation often places a burden on the school when financial or personnel support is lacking. At the same time, the expectation is that schools will teach a more rigorous curriculum, challenging all students at all levels (Christensen, Horn, & Johnson, 2008).

Schools are also experiencing the impact of communication and information changes brought on by technological advances. These technological developments and the means for acquiring and sharing information have changed the classroom forever. Teachers must learn new and better teaching and assessing methods. These new methods are often contradictory to their accustomed teaching style. In addition, due to the technological changes we see today, students come to school acting very differently than

those students attending school years ago. Students today live in a fast-moving, information and stimulation-saturated environment (Fisher & Baird, 2006/2007), and research indicates that students are more engaged when teachers use technology appropriately and effectively in the classroom (Deaney, Ruthven, & Hennessy, 2003; Frye, 2007/2008; Hennessy, Ruthven, & Brindley, 2005; Ungerleider & Burns, 2002). With this in mind, classrooms must be changed to teach these technology-savvy students. As new technology in the classroom emerges, teachers must be able to adapt and change teaching styles and strategies to incorporate this technology (Baird & Fisher, 2005). Incorporating new technology and acquiring better teaching and assessing practices are necessary to meet the needs of students today. This change in classroom practices is realized through professional learning. Effective school leadership is a key factor in determining the quality and processes involved in professional learning (Flores, 2004). Transforming principals must empower others to engage in the type of continuous learning that will bring about these changes.

Problem

Society's demand for reform is stronger than ever, and schools have much more to accomplish and often must accomplish it with fewer resources. In some cases, teachers and administrators experience "burnout" due to all of the internal and external demands placed upon them (Buckley, Schneider, & Shang, 2005; Dorman, 2003). Causal factors of burnout have been linked to classroom management, workload, school climate, low decision-making power, role ambiguity, and little support from superiors and peers (Abel & Sewell, 1999; Betoret, 2006; Bryne, 1994; Leithwood & Beatty, 2008). Without adequate skills to adapt to the changes and stress related to their jobs, principals and

teachers often experience frustration and exhaustion, leading many to leave the field of education (Byrne, 1994; Friedman, 2002; van Dick & Wagoner, 2001). Schools need administrators who can manage the daily stressors of the job and who are able to lead teachers through the current school change and reform efforts. In such a complex and changing environment, a school administrator must be able to articulate a vision for success, inspire others to embrace the vision, and have the ability to make the necessary changes happen (Hallinger & Heck, 1998; Leithwood & Jantzi, 1999b).

Effective Leadership

Research reveals that although principals may have little direct influence on student work, their indirect influence has a substantial effect on student engagement and achievement (Hallinger & Heck, 1998; Leithwood, & Jantzi, 2000; Marzano, Waters, & McNulty, 2005). Marzano et al. (2005) conducted a meta-analysis of school leadership research, examining the effect of leadership on student achievement. This meta-analysis included 69 studies of 2,802 elementary, middle, high, K-8, and K-12 schools in the United States and other countries with similar cultures published between 1978 and 2001. Based on their analysis of the research, Marzano et al. (2005) concluded that there was a positive correlation between effective school leadership and student achievement.

If schools are going to emerge from this hyper-accountability period as effective schools, principals must be a positive driving force for deep cultural change. These principals must attend to specific leadership tasks and actions. Open and constant communication is vital during this quest for change. It is the principal who must communicate to his/her staff that the mission of the school is to educate all students (DiPaola, Tshannon-Moran, & Walther-Thomas, 2004; Hawalah, 2005; McLaughlin &

Hyle, 2001). Communication lines must flow openly, not only from the top to bottom, but also from the bottom up. The principal must monitor and attend to the needs of the school. It is the principal who guides the progression of school culture, and this culture is the underlying foundation for effectiveness (Flores, 2004; Lucas & Valentine, 2002). The principal must involve the teachers in the decision-making process and encourage teachers to be leaders in the school (Leithwood & Beatty, 2008). Fostering a culture of unity and leading the focus on common goals are essential as the school experiences a cultural change. It is important that principals, teachers, and students all strive towards a common goal and vision (Donaldson, 2006; Hawalah, 2005). Sergiovanni (2005) states that the school leader must transform the school by uniting both administrators and teachers in higher-level common goals.

Single and Double Loop Learning

In past years, principals were charged with maintaining the school, and it was actually teachers and students who had to adapt to fit into the school and classroom model. Previously, successful teaching was equated with appropriate lesson plans, classroom control, turning in paperwork, and following orders. When well-educated students were not the resulting product, the student was generally considered to be the problem (Conley & Goldman, 1994). Today, principals and teachers must change the manner in which they approach their jobs to promote student success. With this in mind, their work can be categorized according to two levels of change, or learning. Argyris' (1993) description of learning through change focuses on single loop and double loop learning as an explanation of how an organization successfully adjusts to change or corrects problems. Single loop learning can be thought of as an incremental form of

adaptive learning that does not drastically veer from the norm or past. Often single loop learning can be seen in the daily managing of the school. In contrast, double loop learning alters the system in dramatic ways. In double loop learning, a visible shift in direction, thinking, and acting is evident. Double loop learning is perceived as a break from the past and as lying outside existing paradigms. As such, this type of learning, or change, may conflict with the organization's current set of values and organizational policies (Argyris, 1993). Argyris and Schön (1974) theorized that single and double loop learning are necessary for long-term effectiveness. In today's schools, it is this single and double loop learning which is necessary to meet the needs of all students, as well as the expectations of the parents and the community. To accomplish double loop learning, transformational leaders must establish challenging expectations and be able to empower others to reach goals they first thought not possible. Bass (2008) found that transformational leaders encourage others to question the status quo, analyze situations, and look for creative solutions to old problems. They engage followers through the establishment of common goals and purposes as opposed to the use of power (Bass, 2008). This transformational leadership can bring about a deep level of learning which can result in a complete change of actions and practices (Hallinger, 2003).

The Emotionally Skilled Leader

Along with exhibiting transformational leadership skills, leaders must be able to identify, use, understand and manage their own emotions, as well as the emotions of others (Caruso, Salovey, & Mayer, 2003). First, the leader who can identify emotions has a high awareness not only of his/her own feelings, but also those of his/her followers. These leaders can express emotions accurately and identify false emotions. Second, it is

important for the leader to have the ability to facilitate thought through the appropriate use of emotions. This ability reflects an understanding of how mood impacts thinking and decision making. This is important since the mood of the leader often sets the stage for the mood of the organization (Caruso et al., 2003; Mayer, Salovey, & Caruso, 2002). These leaders also motivate through their use of emotions and can understand different perspectives. They encourage open-minded thinking and plan effectively. Third, a leader who understands emotions can recognize and develop relationships that are needed to lead others through change. Lastly, the leader must be able to manage his/her emotions by handling the stress that comes with the leadership position, as well as acting in the best interest of effective outcomes (Caruso et al., 2003; Mayer et al., 2002). These four branches of emotional intelligence are the framework for the ability theory of emotional intelligence as presented by Mayer and Salovey (1997).

If we wish to increase our understanding of a certain type of leadership, such as transformational leadership, we must look at leader behaviors that are effective. We must also consider and understand the specific emotional skills that help these leaders achieve their goals and level of effectiveness. The purpose of this study is to attain a better understanding of the relationship between transformational leadership and emotional intelligence in principals as well as how effectiveness correlates with their transformational leadership behaviors and emotional skill abilities.

Research Questions

This study answers the following questions:

1. Is there a relationship between the emotional intelligence and transformational leadership of school principals?

2. Do school principals who exhibit transformational leadership behaviors tend to have a balanced positive and negative approach to experienced emotions?
3. Do specific branches of emotional intelligence positively correlate with transformational leadership?
4. Is there a relationship between emotional intelligence and other non-transformational leadership styles in the school principal?
5. Are emotional intelligence and transformational leadership related to the effectiveness of a school principal?

If there is a positive correlation between emotional intelligence and transformational leadership, and both prove to be effective in schools, this information may be utilized in designing curriculum for school leadership education programs and professional development programs.

Transformational Leadership

The roots of transformational leadership are found in the work of James MacGregor Burns (1978) who is generally considered the founder of modern leadership theory (Bass, 1999; Marzano et al, 2005; Masi & Cooke, 2000; Parry & Proctor-Thomson, 2002). Burns's work is primarily found in the political realm, and he identifies leadership as the action of leaders persuading followers to work towards certain goals that represent the values, needs, aspirations, and expectations of both leaders and followers (Burns, 1978). According to Burns, leaders are able to persuade followers through their teaching role of leadership. Additionally, he believes that the brilliance of leadership lies in the way leaders view and act upon their own values and motivations, as well as those of their followers. He confirms that there is a moral aspect of leadership and

believes transformational leadership “is grounded in conscious choice among real alternatives” (p.36). The followers must have the opportunity to experience and understand the different options or actions the leader may be prescribing. Burns further contends that the leadership role is most powerful if leaders help to develop their followers into leaders. In other words, the transformational leader is constantly supporting the evolution of leaders within the organization, and in doing so, these transforming leaders affect real change (Burns, 1978).

Transformational leadership theory has been the subject of much research, both in the business world (Bass & Avolio, 1990; Bass, Waldman & Avolio, 1987; Bommer, Rich & Rubin, 2005) and in educational settings (Hallinger, 2003; Leithwood & Jantzi, 1999a; 1999b; 2000). Bommer et al. (2005) found that transformational leadership behaviors reduced employees’ cynicism about organizational change in a manufacturing firm. Leithwood and Jantzi (1999a; 1999b; 2000) have studied transformational leadership in educational settings, reaching the same conclusions about the positive effects of transformational leadership. Their research indicates that transformational leadership had a positive and significant effect on student engagement and organizational conditions.

Bass and Avolio (1990) describe four characteristics of transformational leadership: inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence. The *Four I’s*, as they are called, are fundamental to the transformational leadership section of this study. The first characteristic of transformational leadership, inspirational motivation, was once considered to be synonymous with the charisma a top-level leader would exhibit. It is now recognized as

being much more than charisma and is seen at all levels of organizations (Avolio et al, 1991). The potential for inspiring others can lie in personal accomplishments, improved communication skills, and the role mentoring plays in motivating others. The leader is particularly able to improve his/her level of inspirational motivation when the vision and goals are shared by other employees. This leader is proactive in seeking to minimize errors, but when mistakes occur, the situation becomes a learning experience instead of an opportunity to punish or criticize (Bass 1990). This leader remains optimistic during times of crisis, sets an example of being a hard worker, and searches for the means to reduce barriers and improve the work environment (Avolio et al, 1991).

Individualized consideration, the second characteristic, involves the leader diagnosing and evaluating the individual needs of the followers as opposed to treating all followers as having the same needs. Leaders who exhibit this characteristic provide feedback while coaching and advising followers, giving them the ability to take on more responsibilities. These responsibilities do not stop at job duties, but they also include the personal responsibility for their own learning and development. These leaders are known for removing roadblocks within the system so the employees can reach full potential (Avolio et al., 1991; Bass, 1990). Individualized consideration leads to the empowering of individuals who can make a difference in an organization.

The third characteristic, intellectual stimulation, focuses on creativity and innovation. The leader encourages others to take a new look at old problems and barriers. The follower learns to analyze situations and problems so that he/she can create his/her own strategies to solve issues. Ultimately, the followers become problem solvers without the leader's assistance. The leader is also open to and intellectually stimulated by the

thoughts and ideas of the followers. Through intellectual stimulation, followers are able to conceptualize, comprehend, and creatively generate solutions that lead to higher productivity and satisfaction (Avolio et al., 1991; Bass, 1990).

Idealized influence is the fourth characteristic of transformational leadership as defined by Bass and Avolio (1990) and focuses on the vision and sense of mission the leader conveys to others. Transformational leaders show respect for others while building confidence and trust among those who report to them. It is within this characteristic that leaders create leaders by showing others that they can accomplish their goals (Avolio et al., 1991; Bass, 1990). Avolio et al. (1991) contend that idealized influence is a combination of the other three characteristics with the addition of a strong emotional connection to and identification with the leader.

Transformational leaders promote a heightened awareness of important organizational issues while at the same time increasing the confidence of followers (Bass, 1990). In a transformational culture, there is a sense of purpose and a feeling of family. Commitments tend to be long-term. Leaders and followers share mutual interests, and there is a sense of shared interdependence. When transformational leadership is practiced at the highest level of an organization, Bass et al. (1987) identified evidence of a falling domino effect as transformational leadership cascades down the management hierarchy. In their study, second-level leaders exhibit some of the same transformational behaviors as their superior (Bass et al., 1987). This domino effect can be applied to a school setting where a principal's leadership style may affect a teacher's leadership style, which may in turn affect student outcome and leadership behaviors.

Transformational leadership focuses on the innovation of the organization and is not primarily concerned with direct control and supervision. It is often viewed as a type of distributive leadership since it encompasses a shared vision and commitment to change (Hallinger, 2003). The transformational leader also supports teachers in the identification of personal goals, which in turn supports the school or school system goals. Commitment level tends to increase and self-motivation is elevated in working towards school improvement without specific direction and monitoring from above. This illustrates why transformational leadership is considered vital when the goal is far-reaching change and reform (Hallinger, 2003).

Over the past few decades, many types of leadership styles have been studied and promoted globally as being successful. Transformational leadership continues to be at the center of leadership research, as results have found it to be effective in many different organizational settings (Bass & Avolio, 1990, 1993; Bommer et al., 2005; Bono, & Judge, 2003; Bono, & Anderson, 2005; Hallinger, 2003). The aspect of transformational leadership that sets it apart from other leadership styles is its purposeful intention of transforming others into leaders. Bennis (2004) states, “The real test of character for a leader is to nurture those people whose stars may shine as brightly as—or even brighter than—the leader’s own” (p. 52). This certainly describes the transformational leader as originally defined by Burns (1978). It is this transformational leader that has been the dominant focus in much of the educational leadership research (Hallinger, 2003; Leithwood & Jantzi, 1999a; 1999b; 2000).

Emotional Intelligence

Before a discussion on emotional intelligence can begin, a definition of the two terms used in the construct must be discussed. First, emotions are defined as responses to an event or situation, either internal or external, that have a positive or negative meaning for the person (Salovey & Mayer, 2007/1990). Emotions heighten awareness and redirect attention where needed (Caruso, 2008). They act as a signal which requires one of the three following responses: a change in the relationship between individuals, a change in the relationship between the individual and the environment, or an internal perception of a change in relationships. Each emotion triggers a reaction. For example, fear may cause a fight or flee response (Mayer, Salovey, & Caruso, 2007). Next, the meaning of intelligence must be clarified, as intelligence has many different meanings to different people. In the context of this study, intelligence will be defined as the ability to think abstractly. Emotional intelligence, then, in its simplest terms can come to describe “the intersection between emotion and cognition” (Mayer et al., 2007, p. 84).

Emotional intelligence has its roots in social intelligence, which was first identified by Thorndike in 1920 (Law, Wong, & Song, 2004). Gardner (1993) also recognized an emotional element of intelligence when he introduced intrapersonal and interpersonal intelligences as a part of his theory of multiple intelligences. Gardner saw interpersonal intelligence as the ability to understand other people’s moods and mental states. He defines intrapersonal intelligence as the ability to monitor one’s own feelings and use this information to guide behavior. Gardner combines both to mean emotional intelligence, but he admits that he focuses on cognition and understanding and not feelings (Gardner, 1993, 1998). Salovey and Mayer (2007/1990) were the first to define

emotional intelligence as a subset of social intelligence, referring to a person's ability to deal with his/her emotions (Law et al., 2004). They believe that emotional intelligence does not prescribe outcomes but rather supports a course of "personal investigation that can occur in the context of the person's own politics, ethnicity, religion, and other characteristics" (Mayer & Salovey, 1997, p. 41).

A few years after Salovey and Mayer's (2007/1990) introduction of their theory of emotional intelligence, the concept became popularized by Goleman (Goleman, 1995; Mayer, Salovey, & Caruso, 2004). Goleman (1995; 1998) advocates for the competency model of emotional intelligence, which includes 18 competencies presented in four clusters: self-awareness, self-management, social awareness, and social skills (McEnrue & Groves, 2006).

Another prominent researcher in the field, Bar-On (2000), has proposed a mixed model of emotional intelligence which sometimes is referred to as a trait model consisting of ten components. He refers to his model as an emotional and social intelligence model. The components of this model include self-regard, emotional self-awareness, assertiveness, empathy, interpersonal relationships, stress tolerance, impulse control, reality testing, flexibility, and problem-solving (Bar-On, 2000).

Mayer and Salovey (1997) contend that emotional intelligence is an ability and can be measured as such. The Mayer/Salovey original framework describes skills surrounding the accurate evaluation and expression of emotions, the effective regulation of emotions, and the use of emotions to motivate and achieve. In the original framework, the researchers did not address the use of thought facilitation, but they have come to understand through later research that a person recognizes feelings in oneself, others, and

objects, and they have refined their definition of the construct to reflect this understanding (Mayer & Salovey, 1997). With this in mind I will use the following refined definition of emotional intelligence for the purposes of this study:

Emotional intelligence involves 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 (Mayer & Salovey, 1997, p.35).

The Salovey and Mayer theory of emotional intelligence is classified as an ability model because it reveals the ability to process emotional information. The model is divided into two areas, experiential and strategic, and includes four branches. The two branches within the experiential area are the identification of emotions branch and the use of emotions to facilitate thought branch. The strategic area includes the understanding emotions branch and managing emotions branch (Kerr, Garvin, Heaton, & Boyle, 2006; Mayer et al., 2000).

The first branch, identifying emotions, involves emotional recognition and expression. The abilities in this branch include being able to identify emotions in self (both physical and psychological states) and in others, and the ability to express emotions accurately and to be able to discern between feelings (accurate vs. inaccurate and honest vs. dishonest). This branch focuses on self-awareness and emotional awareness. Within this branch, the accuracy of perception and judgment is stressed (Caruso, 2008; Mayer, & Salovey, 1997; Salovey, Mayer, & Caruso, 2007/2002). From a leadership perspective, identification of emotions is pivotal to a leader's understanding the needs and wants of

others, as well as knowing the difference between what someone says and what he really means. If a leader can identify those emotions around him/her, it will allow for more effective responses and actions. Furthermore, the type of self-awareness that comes with strong identification skills influences a leader's performance (Caruso et al., 2003).

The second branch involves the use of emotions to facilitate the thought process. This includes the abilities to redirect and prioritize feelings, to produce emotions assisting in judgment and memory processes, to take advantage of mood changes, to understand multiple view points, and to utilize emotional states to problem-solve and exhibit creativity. This branch focuses on using emotions as part of the thinking process (Caruso, 2008; Mayer & Salovey, 1997; Salovey et al., 2007/2002). Leaders can motivate through the use of emotions by generating enthusiasm and excitement in the work. These leaders often engage in symbolic management, using symbols such as stories or traditions to motivate others (Caruso et al., 2003). Leaders who score high on use of emotions typically are open-minded and are comfortable considering and encouraging diverse and creative solutions. Zhou and George (2003) assert that emotional intelligence facilitates creativity. These researchers contend that it is the emotionally intelligent leader who guides others to capitalize upon, instead of being a victim of, their own emotions. Emotionally intelligent leaders who seek creativity must be able to help others see possibilities and must be flexible in their thinking. Oldham and Cummings (1996) found that employees exhibited more creative behaviors when supervised in a supportive environment where they were encouraged to voice their concerns and opinions.

The third branch, emotional understanding, includes the ability to recognize emotional causes and consequences, to understand relationships and complex feelings, to

combine or blend emotions, to recognize contradictory states of emotions, and to comprehend transitions among emotions. Also important in this category is having a grasp of the language of emotions. This is accomplished by possessing a broad emotional vocabulary which helps people to better describe their emotions and the emotions of others (Caruso, 2008; Mayer & Salovey, 1997; Salovey et al., 2007/2002). Complexities surround the leadership role, and it is vital that the leader understand the multifaceted and interconnected nature of emotions and the actions that are associated with specific emotions. This area of emotional intelligence also provides the leader with strong communication skills and the ability to better understand others' points of view (Caruso et al., 2003). Understanding emotional states and how people manage emotional information will allow the leader to assist others as they move through change processes.

The fourth branch, emotional management, includes the abilities to acknowledge pleasant and unpleasant feelings and to manage emotions in self and others. Included in this branch is the ability to manage an emotional state by engaging in it, prolonging it, or detaching from it. Mayer and Salovey (1997) state that these abilities within the branches develop in a sequence, starting with the identification of emotions and culminating with the management of emotions (Caruso, 2008; Mayer & Salovey, 1997; Salovey et al., 2007/2002). Managing emotions allows leaders to deal with all of the stressors that are inherent to the job while also facilitating strong, working relationships that contribute to a positive work environment. Managing emotions can aid a leader in dealing with emotions, both in self and in external emotional situations. Often the wrong response to a situation is preceded by a lack, or "slip," in emotional management. Managing emotions does not imply that emotions are restricted or held at bay for fear of inappropriateness. It

refers to the leader's ability to be aware of and open to different feelings as a part of his/her thinking processes. The leader who scores high in managing emotions realizes that emotions come with important data that must be considered when making decisions and choosing actions or reactions (Caruso & Wolfe, 2004).

The most recent measurement tool designed to measure this ability model of emotional intelligence is the Mayer-Salovey-Caruso Emotional Intelligence Test, v.2 (MSCEIT). The MSCEIT is based on the theory that emotional intelligence involves the use of emotions to solve problems and is very different from the self-measurement tools and surveys which have been developed to measure emotional intelligence competencies and traits. In fact, it has a low correlation with such tests (Mayer, Salovey, Caruso, & Sitarenios, 2007). The MSCEIT yields a total score, two area scores, and scores for each of the four branches of emotional intelligence: identification, use, understanding, and management of emotions. The MSCEIT is the emotional intelligence measurement tool used in this study. An in-depth discussion of the MSCEIT, along with its validity and reliability information, will be forthcoming in chapter three.

Relationship between the Constructs

Acquisition and improvement of communication, goal setting, and managerial skills may be attained through training and instruction. Likewise, emotional knowledge and skills can also be acquired through experiences and training (Caruso et al., 2003). In turn, this emotional knowledge and skill acquisition can complement leadership skills and styles. When people bring different perspectives to a discussion or seek to solve a problem, their activities often involve working through thoughts and emotions to come to a consensus and solution. Transformational leaders facilitate this consensus and problem

solving process by building confidence and trust among followers (Avolio et al., 1991). As these transformational leaders empower others to accomplish their goals, they often must maneuver through a sea of emotions that followers experience as they push and challenge themselves (Küpers & Weibler, 2005). Fullan (2001) describes this transformation process as reculturing, involving radical change where the process strengthens and builds upon moral purposes through collaboration. Change can be very emotional, and the knowledge and skills required for high levels of identifying, using, understanding, and managing emotions are needed to guide others through this reculturing process.

Donaldson (2006) presents a school leadership model incorporating three streams of leadership. He uses the metaphor of three streams to demonstrate how these three dimensions of leadership come together to form a current of change which mobilizes school improvement. While transformational leadership behaviors and the need for emotional intelligence skills can be viewed as overlapping throughout these streams, the convergence of specific behaviors and skills seem to be more prevalent in certain streams. The streams of leadership will be examined in the following paragraphs using this model as a lens for aligning the transformational leadership behaviors and emotional intelligence skills particularly inherent in each stream.

The core foundation of Donaldson's (2006) model of educational leadership argues that "...leadership is a relationship that mobilizes people to fulfill the purpose of education....a collective relationship where participants are both *shapers of* and *shaped by* one another" (p.47). In this model, the first stream focuses on open, trusting and affirmative relationships which are entered into freely by all participants. People need to

communicate openly and form consensus about the decisions surrounding the direction the school should take. While these relational leaders demonstrate trustworthiness and openness in their personal and professional lives, there are other matters they attend to that strengthen the relational piece of leadership. They are attuned to people's feelings and actively discuss roles and responsibilities with all involved. They also foster strong working relationships by including all staff in the resolution of issues. This relational stream easily aligns with transformational leadership theory. Donaldson (2006) believes that all school staff members should exhibit leadership and share in the trust and affirmation which mobilizes the school. Inspirational motivation resonates through this stream, where the vision and goals are shared by all. This relational stream ties the leader and others together as they inspire each other. Individualized consideration is also evident in this stream through the open dialogue and discussions that occur. Individual needs are considered through the mobilization towards school improvement. The relationship stream promotes a culture of shared successes and challenges. The emotional intelligent skills needed in this relational work are also readily visible as the leader must be able to identify and understand both his/her own emotions, as well as those of others, to facilitate a culture of trust and openness. It is through the accurate identification of emotions that the leader can effectively read emotionally charged situations and formulate appropriate responses (Caruso, 2008; Mayer & Salovey, 1997). Building relationships within a school is complex, and it is important for the leader to be able to recognize emotional causes and effects. Understanding emotions provides the leader with the much needed strong communication skills and the ability to see different viewpoints as he/she moves others to strategy and action consensus (Caruso et al., 2003).

The second stream introduced by Donaldson (2006) is a commitment to moral purposes. The very nature of an educator's dedication is morally driven, centering on empowering others and society as a whole through acquisition of knowledge. In other words, moral purpose in this context relates to improving society through a better educational system for all students. It involves engaging educators and the community in collaboration and reform efforts that support all students, particularly those students who are at-risk or who have previously been unsuccessful in school (Fullan, Cuttress, and Kilcher. 2009). Donaldson (2006) contends that the leader's challenge is to understand the work of schools as it intersects with teachers' moral purpose. Without moral purpose, there is no direction, vision, or set of core beliefs that guide the actions of all stakeholders. This stream encompasses the process of forming and articulating the mission, goals, and beliefs that align with the moral purpose of the school, and then maintaining the course so as to act and react daily according to these goals and beliefs. An inquiry process is also valued as a means towards improvement at both an individual and group level. The leader can engage dialogue around moral purpose through the transformational characteristic of idealized influence. This can be accomplished by building confidence in others as they work towards a shared vision and realize their successes (Avolio et al., 1991). Intellectual stimulation is another transformational characteristic that supports this stream of leadership. The leader encourages a new look at old problems and forms discussions around perceived barriers. All are engaged in searching for creative solutions (Avolio et al., 1991; Bass, 1990). The emotional intelligence skill of using emotions focuses on the thought processes and can be very beneficial during the formation of the vision, goals and beliefs. In addition, leaders with

skills in the using emotions branch encourage various creative solutions to problems and are typically open-minded (Caruso et al., 2003).

Donaldson's (2006) third stream involves a shared belief of common action which brings the first two streams together. Having strong, positive relationships and a moral purpose would not be enough to reach a high level of effectiveness without the belief in a common action for results. This stream of leadership supports the implementation of new programs, policies and learning through collective, cohesive action. Faith in the group's collective work is built upon the premise that success breeds success (Donaldson, 2006). The leader stresses the connectedness between colleagues and facilitates an atmosphere of confidence in their actions. He/she acknowledges evidence of the school's progress and faces difficult challenges with open dialogue, moving the staff to collective action. This belief in common action is modeled by the leader who actively forms partnerships with staff to achieve the desired results. All transformational characteristics could be highlighted in supporting this stream of leadership, but inspirational motivation and idealized influence are especially vital when bringing people together to carry out such cooperative actions. Inspirational motivation is evident in the mentoring role the leader must play in this interactive process of common actions. The inspirational motivator is optimistic and proactive, turning mistakes into learning experiences as the staff acts as a collective whole in pursuing goals. Building confidence in others so they can realize their goals would be a result of the leader's idealized influence (Avolio et al., 1991). Using emotions to facilitate thought and managing emotions are the two branches of emotional intelligence which allow the leader to focus the energies of the staff toward the common action needed to reach their goals. Motivation through the use of emotions by generating

excitement surrounding the work is important in this stream of leadership. Symbolic leadership focusing on inspiring stories and traditions can be helpful in motivating and uniting the staff (Caruso, et al., 2003). Managing emotions becomes very important at this stage of leadership, as moving from the ideals to the action phase often present challenging obstacles that must be addressed before there is a collective belief in the action taken. The leader who scores high in managing emotions is very aware and open to self-emotions, as well as those of others. Knowing how to engage in, prolong, and detach from emotional situations is important when working with multitudes of people and facilitating the common action work (Mayer & Salovey, 1997). Embarking on a different path which involves teaching and learning viewed through a different lens may cause a level of discomfort and anxiety. The emotionally competent leader recognizes and helps others to manage and work through these emotions, allowing them to see past the barriers and find collective solutions.

The alignment of transformational leadership characteristics and emotional intelligence branches within the context of Donaldson's (2006) model for educational leadership substantiates the need to investigate the interaction between the constructs further. Table 1 represents this previous discussion using the streams of leadership as the lens through which we can identify the usefulness of both the characteristics of transformational leadership and the branches of emotional intelligence.

With the many changes and reforms bearing down on schools, the principalship has become much more complex over the past decade (Fullan, 2009). If transformational leadership has been shown to be an effective way in which to lead schools (Hallinger, & Heck, 1998; Leithwood, & Jantzi, 1999a; 1999b) and if a certain level of emotional

intelligence ability has been demonstrated as being necessary for successful leadership in any organization (George, 2000; Rosete & Cirarochi, 2005), it is imperative that we learn more about the nature of their relationship. By better understanding this relationship, we can concentrate on improving and building upon those emotional intelligence skills that contribute to transformational leadership behaviors. With this in mind, the study will investigate the relationship between Bass and Avolio's (1990) transformational leadership model and emotional intelligence as conceptualized by Mayer and Salovey (1997).

Table 1

Viewing TL & EI through lens of the Three Streams of Leadership(Donaldson, 2006)

Three Stands of Leadership	Transformational Leadership Characteristics	Emotional Intelligence Branches
Relationships	Inspirational Motivation	Identify
	Individual Consideration	Understand
Moral Purposes	Idealized Influence	Use
	Intellectual Stimulation	
Shared Belief	Idealized Influence	Use
	Inspirational Motivation	Manage

CHAPTER 2

REVIEW OF THE LITERATURE

The purpose of this chapter is to review the research and literature as it applies to transformational leadership, emotional intelligence, and the relationship between the two constructs, particularly in the context school leadership. The chapter is divided into four sections. The first section investigates the literature on transformational leadership, delving into the evolution and background of the theory and discussing how it applies to organizational change. This section also examines the effects of transformational leadership on teachers and students. The second section reviews the research and literature on emotional intelligence, beginning with the background of the ability theory of emotional intelligence. Emotional intelligence is explored as it applies to the workplace and specifically to leadership situations. The relationship between emotional intelligence and outcomes, or performance, is also included in this section. The third section examines the literature on the relationship between transformational leadership and emotional intelligence with a focus on correlations. The last section of this chapter will summarize the gaps in the literature and the need for more research investigating the relationship between transformational leadership and emotional intelligence as it applies to leadership in school settings.

Evolution and Background of Transformational Leadership

Much of the literature on transformational leadership points to Burns (1978) as the founder of the theory upon which the research and studies in this area have been built. While he has focused on leadership from a political perspective, his theory on transforming leadership has been applied to many other contexts (Bass & Avolio, 1993;

Bommer et al., 2005; Dvir et al., 2002; Hallinger, 2003; Hallinger & Heck, 1998; Leithwood & Jantzi, 2000; Piccolo & Collquitt, 2006). Burns (1978) introduced a general theory of leadership as:

a function of complex biological, social, cognitive and affective processes...it is closely influenced by the structures of opportunity and closure around it...it may emerge at different stages in different people's lives...it manifests itself in a variety of processes and arenas...(p. 427-428).

The foundation of transformational leadership theory evolves around the importance of transforming others into leaders. A leader engages in transformation when the motives, values, and goals of the followers are altered and shaped through the "teaching role of leadership" (Burns, 1978, p. 425). Burns (1978) asserts that leaders should enter into a relationship with followers where their actions represent the motivations, values, and needs of both the leaders and followers. Burns also discusses his leadership theory in the context of change and reform. He believes that the measure of good leadership can be seen in its contribution to change as it relates to collective motives. He distinguishes between leadership and power and claims that good leaders will adjust their purposes to the needs and purposes of their followers, while power wielders will force their purpose upon their followers. He stresses that values are the underlying fabric that strengthen the transforming leader. Over 30 years after his first writings about leadership, Burns (2003) still contends that the definitive purpose of transforming leadership is deep and long-lasting change, directed and measured by values. This is the type of transforming leadership needed today in schools to guide principals and teachers through the maze of changes that are occurring.

While transformational leadership skills are the primary focus of this study, it is important to include transactional leadership skills in the discussion. Burns (1978) originally made a distinction between transactional leaders and transformational leaders, believing leaders fell into one of the two categories. Bass and Avolio (Bass, 1985; Bass & Avolio, 1990) built upon Burns's theory, and they assert that the two actually complement each other. Transactional behaviors, according to Bass and Avolio (1990; 1993), have come to represent the managerial aspects of leadership. Transactional leaders define, communicate, and reward the work (Avolio, Waldman, & Yammarino, 1991). These leaders organize the work and decrease job ambiguity. Bass and Avolio (1990) maintain that while transformational leadership is needed to bring about change, the transactional aspect of leadership is also vital and cannot be ignored. Bass (1985) stressed that there is an augmentation effect, whereas varying degrees of transformational leadership and transactional behaviors can be found in the same leader. Seeking validation for this claim, Judge and Piccolo (2004) conducted a meta-analysis of 87 transformational and transactional leadership studies and found support for the augmentation theory. Their work indicated that transformational leadership behaviors may build upon transactional skills and behaviors. Organizational leaders should strive to improve their transformational leadership skills while preserving effective transactional qualities (Bass & Avolio, 1990). For the purpose of this study, the major focus is on transformational leadership behaviors, but it should be understood that transformational leadership is not intended to replace transactional leadership behaviors. In the best scenario, transformational and transactional leadership behaviors should merge so that they are so interwoven that it is hard to completely distinguish one from the other.

Ethical and Moral Issues

Questions have been raised regarding issues of the moral and ethical aspects of transformational leadership, especially when it is likened to charismatic leadership, where the rhetoric may appeal more to emotions than to reason (Bass & Steidlmeier, 1999). Some charismatic leaders have proven to be more akin to dictators than authentic leaders (Parry & Proctor-Thomson, 2002). When Bass first discussed transformational leadership, he theorized that transformational leadership could have positive or negative effects on others depending upon how it is used (Bass, 1985). He later came to revise his theory to assert that transformational leadership must also include moral and ethical dimensions that move self and followers to positive higher levels (Bass & Steidlmeier, 1999). Addressing the critics of transformational leadership, Bass and Steidlmeier (1999) affirm that authentic transformational leaders are engaged in the moral leadership of helping others by enabling and empowering them to realize their goals. These leaders and followers work towards mutual goals. Parry and Proctor-Thompson (2002) addressed this ethical issue by investigating the connection between perceived leader integrity and transformational leadership. Their research indicated that there was a moderate to strong positive relationship between perceived integrity and transformational leadership behaviors. Furthermore, Turner, Barlind, Epitropake, Butcher and Milner (2002) studied the moral reasoning of transformational leaders and also found a positive correlation. The research indicates that authentic transformational leaders display highly ethical and moral characteristics.

Gender and Transformational Leadership

While the relationship between gender and transformational leadership is not the focus of this study, it should be noted that there has been no definitive answer as to whether or not women more often tend to exhibit transformational leadership behaviors than men. The research has yielded somewhat mixed results, but a meta-analysis of 45 studies revealed that females in these studies were slightly more transformational than their counterparts (Eagley, Johannesen-Schmidt, & Engen, 2003). Another study, conducted by Carless (1998), examined the perception of leaders as rated by their superiors and their subordinates in relation to the leader's transformational behaviors. The superior ratings indicated that females were more transformational while the subordinate ratings saw no difference between males and females.

Business, Industry, Government and Military Environments

Over the past few decades, research across different work settings has been conducted internationally involving Bass and Avolio's (1990) transformational leadership theory (Bass & Avolio, 1993; Bass et al., 1987; Bommer et al., 2005; Masi and Cooke 2000; Piccolo & Colquitt, 2006; Purvanova, Bono, and Dziewieczynski, 2006; Seltzer and Bass, 1990; Zagorsek, Dimovski, and Skerlavaj, 2007). Many of these studies have found links between job performance and transformational leadership. Bass, et al. (1987) studied the falling domino effects of transformational leadership in a New Zealand government agency. They found that transformational characteristics, particularly individualized consideration and intellectual stimulation, when exhibited at a higher level of management, seemed to be emulated by managers at lower levels of the organization. Dvir, Avolio, and Shamir (2002) arrived at similar conclusions when they conducted a

field experiment on officers and recruits in the Israeli Defense Forces,. Their study found that transformational leadership had a positive impact on direct follower development and indirect follower performance. This is further evidence of the far reaching effects of transformational leadership.

The transformational effect on performance was evident in Seltzer and Bass's (1990) study which sampled 98 managers and found that transformational leadership explained the variance in employee satisfaction and leader effectiveness and also had an impact on employee initiation. Another study involving a customer service division at a manufacturing plant for a large company found a link between transformational leadership and employee citizen performance. More specifically, transformational leadership affected behaviors such as courtesy, sportsmanship, conscientiousness and civic virtue (Purvanova et al., 2006). In addition, Masi and Cooke (2000) applied transformational leadership theory to a military setting and found positive correlations between transformational leadership behaviors and motivation. All of these studies come together to point to the empirical evidence linking transformational leadership behaviors and job performance in industry, business, government, and military environments.

Zagorsek et al. (2007) took transformational leadership theory in somewhat of a different direction, examining its effect on the learning process in organizations. Understanding that organizational learning is of utmost importance in sustaining a competitive advantage, these researchers sought to find a link between transformational leadership and organizational learning in a work environment. Their research involved managers from various companies in the country of Slovenia, where they found a positive relationship between transformational leadership and information acquisition,

distribution, and interpretation, as well as cognitive and behavioral changes within the organization.

Educational Environments

Along with its application in business, industry, government, and military venues, transformational leadership research has also been applied to educational settings (Hallinger, 2003; Hallinger and Heck, 1998; Leithwood & Jantzi, 1999a; 1999b; 2000; Marzano et al., 2005; Ross and Gray, 2006; Sergiovanni, 2005). Sergiovanni (2005) recognizes some of the key tenets of transformational leadership as he discusses the need to stimulate human potential and satisfy higher-order needs while raising the expectations of both the leader and those who are led. He echoes Burns's (1978) beliefs about transformational leadership, stating that "The successful leader, then, is one who builds up the leadership of others and who strives to become a leader of leaders" (Sergiovanni, 2005, p. 27).

The school principal through his/her leadership does have an impact upon the school's effectiveness and student outcomes (Hallinger & Heck, 1998; Marzano et al., 2005; Hoy & Woolfolk, 1993). Through a meta-analysis of previous research, both Hallinger and Heck (1998) and Marzano et al. (2005) have found small but significant indirect effects which the principal and his/her leadership has on student outcomes. The meta-analysis conducted by Marzano et al. (2005) is particularly interesting because it links transformational leadership with student achievement. Typically, the indirect impact on student outcomes is traced through school structures and teacher behavior, which is influenced by the leader's transformational behaviors (Hoy & Woolfolk, 1993). Hoy and

Woolfolk (1993) specifically found that a principal's leadership behavior, particularly the principal's influence on others, does affect the teacher's personal teaching efficacy.

Leithwood and Jantzi (1999a; 1999b) studied the effect of transformational leadership on student engagement, taking into account all of the family and external contributing factors that affect engagement. They found a weak but significant correlation between the principal's transformational leadership style and student engagement. In another more recent study, Leithwood and Jantzi (2006) studied the effect of transformational leadership on teachers and students during the implementation of an instructional reform movement in England's primary schools. The results were a bit mixed, with transformational leadership having strong effects on the work setting and motivation, moderate but significant effects on teachers' classroom practices, and no significant effects on student achievement gains. Koh, Steers, and Terborg (1995) found somewhat different results in their study of schools in Singapore, which indicated that transformational leadership had a positive effect on commitment, organizational citizenship behavior, and teacher satisfaction, as well as an indirect impact on student achievement.

Consistent with Hoy and Woolfolk's (1993) findings, Ross and Gray (2006) found that transformational leadership had an impact on the collective efficacy of teachers in a school setting. In turn, this efficacy was found to be predictive of teacher commitment to community, school mission, and professional learning. This supports Sergiovanni's (2005) argument for a transformative leadership approach where leaders and followers come together to reach higher level common goals.

The falling domino effect discussed earlier (Bass et al., 1987) can also be seen in

educational settings through the work of Lucas and Valentine (2002) who found a strong relationship between a principal's transformational leadership and his/her leadership team's transformational leadership style. If this domino effect holds true, the principal's transformational leadership style is passed on through the leadership team to teachers and eventually affects the actions and work of students.

Relative to this study, the research that involves transformational leadership in the scope of change and reform in school settings is of particular interest. Leithwood and Jantzi (1999b) conducted research in a large school district in Canada at a time when the schools were challenged with changes in curriculum, assessment, funding, and the introductions of school councils. They concluded that transformational leadership had a strong effect on school conditions such as culture, purpose, goals, and in the structure and organization of the school. They also found evidence of a weaker but significant link between transformational leadership and the manner in which a student identifies with the school. This study was a replication of a prior comparable study (Leithwood and Jantzi, 1999a) which yielded similar conclusions.

In developing countries, such as Tanzania, educational reforms are viewed as the key to economic survival. Due to the nature and context of a developing country, reform may look different than that of a western nation in the midst of educational reform. However, research conducted in Tanzania reveals that transformational leadership had a positive effect on job satisfaction, which indirectly influenced commitment and organizational citizenship behavior. The fact that this research was not restricted to the western world demonstrates the effectiveness and universality of the theory across cultures (Nguni, Slegers, and Denessen, 2006).

Concerns and Dissenting Views

There are a few dissenting views and concerns in relation to the usefulness of transformational leadership that should be noted here as well. Judge and Piccolo (2004) conducted a meta-analysis of leadership research and found that contingent reward (transactional) leadership was just as effective as transformational leadership. The researchers did not feel that this diminished the impact of transformational leadership but felt that the effectiveness of one type of leadership behavior over the other depended upon the context. Also of concern in their meta-analysis was a high correlation between transformational leadership and several transactional dimensions, making it difficult to separate the two types of leadership behavior. They concluded that more research is needed in this area.

Emotional Intelligence Theory

The roots of emotional intelligence can be traced back to E. L. Thorndike's (1920) identification of social intelligence (Law, Wong, & Song, 2004; Salovey & Mayer, 1990). Thorndike and Stein (1937) reference E. L. Thorndike's (1920) conceptualization of social intelligence as the ability to understand and manage people. Salovey and Mayer (2007/1990) identify emotional intelligence as a subset of social intelligence whereby emotional intelligence involves 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. 5).

After two decades of study and research, the science of emotional intelligence is still in its infancy stage. Researchers have not yet come to any consensus about how to conceptualize the construct of emotional intelligence (Grubb & McDaniel, 2007; Zeidner,

Roberts, & Matthews, 2008). There has, in fact, been a great amount of diversity surrounding the beliefs associated with emotional intelligence. Three generally accepted models of emotional intelligence have emerged from the research, each with its own theoretical base and variation of measurement. These models are Goleman's (1995) competency model, Bar-On's (2000) trait or mixed model, and Salovey and Mayer's (1990) ability model. At times, researchers have divided the models into only two categories, moving the competency model into the mixed model category (Boyatzis, Goleman, & Rhee, 2000; Grubb & McDaniel, 2007; Mayer, Salovey, & Caruso, 2007).

Goleman's (1995) book, *Emotional Intelligence: Why it Can Matter More than IQ*, resulted in the popularization of the concept when he overstated the claim that emotional intelligence was more important than IQ in predicting a person's success. This claim resulted in a series of popular magazines and newspaper articles which further perpetuated the popularity of an unsubstantiated assertion (Mayer et al, 2004). While emotional intelligence has been found to be a valuable predictor of performance (Van Rooy & Viswesvaran, 2004), Goleman's (1995) original claim is generally seen as being unsupported, overstated and misinterpreted (Salovey, Mayer et al, 2007/ 2002; Zeidner et al, 2008). Goleman (2005), himself, sought to clarify the misconception that 80% of intelligence can be attributed to emotional intelligence in the introduction of his anniversary edition to the aforementioned book (Goleman, 1995). Goleman's competency model of emotional intelligence includes four dimensions: self-awareness, self-management, social awareness, and social skills.

Bar-On's (2000) five dimensional trait model of emotional intelligence is more akin to Goleman's (1995) model than the ability model. This model includes behaviors

associated with interpersonal, intrapersonal, adaptation, and stress management skills, along with general mood behaviors (McEnrue & Groves, 2006). Goleman's (1995) and Bar-On's (2000) models rely on either self-report measures or 360 degree surveys as a means of assessing emotional intelligence.

For the purpose of this study, the focus will be on Salovey and Mayer's (2007/1990) ability model of emotional intelligence. Salovey and Mayer's (2007/1990) original conceptualization of emotional intelligence surrounded three types of mental processes: appraisal and expression of emotion, regulation of emotion, and the utilization of emotion. Salovey and Mayer's (2007/1990) work sought to relate this original work not only to intelligence research but also to emotions research. Their research over several years has allowed them to modify and refine their conceptualization of emotional intelligence. They currently assert that there are four branches of emotional intelligence: identifying emotions, using emotions (to facilitate thought), understanding emotions, and managing emotions (Mayer & Salovey, 1997; Salovey, Mayer et al., 2002). These four branches were previously discussed in chapter 1 of this study.

The ability model of emotional intelligence meets the scientific criteria of a standard intelligence. First, the assessment of emotional intelligence can be operationalized with correct and incorrect answers. This means that people must exhibit skills in the four branches to be considered emotionally intelligent. Second, certain correlational criteria are present. There is an intercorrelated connection between the abilities defined within the intelligence. There is also a connection to pre-existing intelligences while at the same time demonstrating a unique variance to these other intelligences. Third, the abilities within the emotional intelligence definition develop and

improve with age and experience (Mayer, Caruso, & Salovey, 2000a). Mayer et al. (2000a) conducted two studies focusing on the above criteria and found that the ability model of emotional intelligence did meet the standards of an intelligence. Another important point to make about the ability model of emotional intelligence is its unrelatedness to personality. Research has demonstrated that the ability model incorporates very little overlap in the measurement of the abilities of emotional intelligence and personality traits (Caruso, Mayer, & Salovey, 2002; Day & Carroll, 2004; Lopes, Salovey, & Straus, 2003; Mayer, Salovey & Caruso, 2008).

Emotional Intelligence Measurement Tools

Several tools have been developed and used to measure emotional intelligence. They vary depending upon the definition and theoretical perspective of emotional intelligence that is held by the researcher (Mayer, Caruso, & Salovey, 2000b). Measurement tools based upon non-cognitive traits are typically in the form of self-report and 360 degree rater instruments. Two widely accepted such tools are the Emotional Competency Inventory (ECI-2) developed by Boyatzis and Goleman (Boyatzis et al., 2000) and Bar-On's Emotional Quotient Inventory (EQ-I) (Cartwright & Pappas, 2008; Hedlund & Sternberg, 2000). The ECI-2 is a 360 degree measurement tool, where self, peer, superordinate, and subordinate ratings are used. This emotional intelligence measurement tool aligns with Goleman's competency model (Boyatzis et al., 2000; Caruso, 2008). There is limited research on the predictive value or validity of the ECI-2 (McEnrue & Groves, 2006). Bar-On's EQ-I is a self-measure tool which has been challenged due to concerns over what self-ratings actually reflect and the appropriateness of using such ratings to measure emotional intelligence (Wilhelm, 2005). Self-report

measures rely on a person's accurate self-perception. If a person has an accurate self-perception, the measure may be accurate. The problem is that people are typically inaccurate when it comes to the perception of their own functioning or ability (Mayer et al., 2000b). There has also been concern raised about the "faking aspect" of the self-reporting measures. In a study conducted by Day and Carroll (2008) testing the fakability of the EQ-I and MSCEIT, results demonstrated that the EQ-I was susceptible to faking, whereas the MSCEIT was not. This research also supports the construct validity of the MSCEIT, which claims to measure an ability as opposed to personality traits or behaviors (Brackett & Mayer, 2003; Day & Carroll, 2008; Mayer et al., 2007; Rode et al., 2008). While the researchers who developed the MSCEIT recognize the value of self-report, they contend that self-reports do not measure intelligence (Mayer, Salovey, & Caruso, 2002). For this reason, it is important to measure a person's actual ability and not the self-concept of the ability (Caruso, 2008). This research study will utilize the MSCEIT for measuring emotional intelligence.

Research on the Utility and Benefits of Emotional Intelligence

The discussion in this section will focus entirely on the ability model of emotional intelligence as it applies to behavior in general, as well as to the application of emotional intelligence in the workplace and, in particular, to leadership situations. While the theory is still a "young" theory, there have been several studies over the past couple of decades that have critically examined the relationship between emotional intelligence and performance or behavior (Barbutto & Burbach, 2006; Day & Carroll, 2004; Kerr et al., 2006; Moss, Ritossa, & Ngu, 2006; Rode et al. 2007; Rosete & Ciarrochi, 2005; Wong and Law, 2002).

The evidence connecting emotional skills and behavior has been investigated across different age groups. Higher emotional skills correlate to lower levels of antisocial and inappropriate behaviors in children and teen-agers alike (Eisenberg, Fabes, Guthrie, & Reiser, 2000; Trinidad and Johnson, 1999). Custrini and Feldman (1989) found that students with a higher level of social competence were able to identify emotions more accurately. Identifying emotions is a basic component of Mayer and Salovey's (1997) emotional intelligence theory. This connection between behavior and emotional intelligence holds true for college age students as well. Lopes, Salovey, and Straus (2003) found a link between this age group's high emotional intelligence and positive social relationships. This is also consistent with the findings of Lopes et al. (2004) whose study indicated that higher managing emotions scores positively correlated with perceived positive relationships with peers. This has relevant implications for the importance of emotional intelligence in the workplace as it relates to social relationships.

Wong and Law (2002) found a significant relationship between performance and emotional intelligence as it applies to job satisfaction and organizational commitment. In other research on individual performance, Day and Carroll (2004) found that emotional identification correlated positively with individual performance in decision-making tasks. This relationship was indirect, and their results in this research led them to conclude that there is a need for more extensive research in this field. Their study also indicated a relationship between group citizenship behavior and emotional intelligence. Both of these studies are supported by the research of Rode et al. (2007) who also found that emotional intelligence was related directly and indirectly to the individual performance of business

college students in the areas of interpersonal effectiveness, group behavior effectiveness, and grade point average.

Gender and Emotional Intelligence

A few studies have investigated the role gender plays in emotional intelligence, with findings that women typically outscore men on the MSCEIT (Mayer, Caruso, & Salovey, 1999; Mayer & Geher, 1996). In a study investigating the relationship between transformational leadership and emotional intelligence, Mandell and Pherwani (2003) found a significant relationship between the two constructs. Worth noting is that while they did find a significant difference between male and female emotional intelligence scores, they did not find significant differences in male and female transformational leadership scores.

Emotional Intelligence and Leadership

Research on transformational leadership and emotional intelligence as separate constructs has been reviewed. This section will examine the literature on the relationship between leadership behaviors and emotional intelligence. Research conducted over the last few decades does link leadership behaviors and emotional intelligence to outcomes (Moss et al., 2006; Wong and Law, 2002). It has been found that leaders can better understand and motivate others through the use of emotions. Furthermore, an effective leader must be able to harness his /her emotions to form a team, motivate others, and efficiently design a plan to reach goals (Caruso et al., 2003).

Several researchers have also considered the link between emotional intelligence and mood (Ciarrochi, Chan, & Caputi, 2000; George, 2000;). Given that mood affects the work environment, it is important to investigate this relationship (George, 2000).

Ciarrochi et al. (2000) found that leaders who have high emotional intelligent scores are better at mood management. These leaders have a hyper-awareness of not only their moods, but also their reactions and behaviors to these moods. This awareness may cause them to revisit decisions and processes that may have had a negative or positive mood influence. For instance, if a leader realizes that he/she was in a pessimistic mood while making a decision which may have caused a negative approach to the problem, he/she will reconsider the problem and solution. Similarly, if the leader senses that an overly optimistic state may have caused an unrealistic view of the problem, he/she will reassess the action when in a more neutral state (George, 2000). In these examples, the mood of the leader which is guided by his/her level of emotional intelligence affects the followers and organization as a whole (Sy, Côté, & Saavedra, 2005).

As discussed earlier, Zhou and George (2003) propose that a leader's high level of emotional intelligence can promote creativity in followers. This route to creativity is traced through the positive culture and environment that the leader with high emotional intelligence constructs through his/her perception and actions based on emotions. They contend that this leader can channel and encourage better solutions through the management of his/her own emotions during stressful or frustrating situations. In addition, these leaders exhibit flexibility when approaching problems. By understanding and managing their emotions, they are more able to consider alternative solutions and resourceful ways to solve problems (George, 2000).

Several theoretical discussions and research studies have linked emotional intelligence with general leadership effectiveness. While most studies have reported results that support a relationship between emotional intelligence and leadership

effectiveness, some reports have mixed results or partial support for the relationship (Feyerherm & Rice, 2002; George, 2000; Kerr et al. 2005; Rosete & Ciarrochi, 2005; Voola, Carlson, & West, 2004; Wong & Law, 2002; Zhou & George, 2003). Kerr et al.(2006) studied the effectiveness of 38 supervisors using the MSCEIT to measure the emotional intelligence of the managers and a supervisor rating scale to measure a leaders' effectiveness. They found a significant relationship between the experiential area of the emotional intelligence scores (identifying and using emotions) and effectiveness but did not find this relationship within the strategic area scores (understanding and managing emotions). On the other hand, Rosete and Ciarrochi (2005) conducted research including 41 executives from an Australian public service organization. Their findings revealed that those with higher emotional intelligence skills were more apt to accomplish goals and to be considered as being effective by their followers. Through regression analysis, they found that identification of emotions, in particular, correlated with effective leadership.

Emotional Intelligence and Transformational Leadership Links

The evaluation of the relationship between emotional intelligence and transformational leadership is largely dependent upon the theory and measurement tool used. Research utilizing the competency and mixed model of emotional intelligence (Barling, Slater & Keloway, 2000; Cartwright & Pappas, 2008; Gardner & Stough, 2002; Palmer, Walls, Burgess, & Stough, 2001; Sosik & Megerian, 1999) has yielded mixed results. Likewise, similar mixed results and interpretations have been documented in studies of the relationship between transformational leadership and the ability model of emotional intelligence (Brown & Moshavi, 2005; Cartwright & Pappas, 2008; Hayashi &

Ewert, 2006; Jin, Seo, & Shapiro 2008; Leban & Zulauf, 2004; Mandell & Pherwani, 2003; Weinberger, 2004). This reinforces the need for more research in the area.

In a study of project managers, Leban and Zulauf (2004) found a link between transformational leadership and emotional intelligence. Using the MSCEIT and the Multifactor Leadership Questionnaire (MLQ) survey, they concluded that project managers' emotional intelligence contributed to the transformational leadership style of the manager which positively correlated with the actual project outcome or performance. Table 2 depicts the relationship found in this study using Bass and Avolio's (1990) transformational leadership descriptions of characteristics. Note that the strategic area consists of the understanding and managing branches. Their findings indicate that there is a relationship between idealized influence and the strategic area, individualized consideration and the strategic area and the understanding branch, and inspirational motivation and the overall emotional intelligence score.

Hayashi and Ewert (2006) studied leaders who lead others in outdoor activities relating to recreation, and found a moderate relationship between emotional intelligence and transformational leadership. Their study revealed that adaptability and stress management were related to idealized influence, intellectual stimulation, and inspirational motivation. Another study evaluating the intensity of emotion when considering the relationship between emotional intelligence and transformational leadership concluded that there was a positive relationship when the emotional intensity was low as opposed to a high level (Jin et al., 2008).

In Weinberger's (2004) research, the relationship between emotional intelligence and transformational leadership could not be established. She found no relationship

Table 2

Transformational Leadership and Emotional Intelligence Links (Leban & Zulauf, 2004)

TL	TL	EI Branches
Characteristics	Skills	& Areas
Idealized Influence	Establishes a vision & sense of mission; shows respect; builds trust & confidence in others allowing for accomplishment of goals	Strategic
Individualized Consideration	Diagnoses & evaluates individual needs; provides feedback & advice; emphasizes personal responsibility for own learning; removes system roadblocks to allow for maximum potential of others; empowers others	Strategic Understanding
Intellectual Stimulation	Supports creativity & innovation; encourages a new look at old problems; helps others to analyze situations so they can create their own solutions and become problem-solvers; open minded	
Inspirational Motivation	Inspiration through personal accomplishments; establishes open communication lines; mentors others; shares vision and goal; seeks to minimize errors proactively; optimistic during crisis; seeks to improve work environment;	Overall EI

between the two constructs in her study of 151 managers of a manufacturing company when considering the individual components of both emotional intelligence and transformational leadership. Noting that emotional intelligence theories and measures are

still in the infancy stage, Weinberger (2004) called for a wider range of empirical research.

This chapter has reviewed the literature on transformational leadership and emotional intelligence as separate constructs, as well as investigating the relationship between the two. Over the past several decades, there has been much theorizing and research related to transformational leadership (Avolio et al., 1991; Bass & Avolio, 1990, 1993; Burns, 1978; Eagly et al., 2003; Hallinger, 2003; Lucas & Valentine, 2002; Moss et al., 2006; Ross & Gray, 2006; Rubin, Munz, & Bommer, 2005). Emotional intelligence research is in a relatively young state, and research relating to the relationship of transformational leadership and emotional intelligence is lacking (Brown & Moshavi, 2005; Sayeed & Shanker, 2009; Weinburger, 2004). Further research is needed to understand the relationship between transformational leadership and emotional intelligence (Cartwright & Pappas, 2008; Hayashi & Ewert, 2006; Humphrey, 2002). The purpose of this study is to gain knowledge about if and how emotional intelligence interacts with transformational leadership and how both relate to principal effectiveness. A better understanding of this relationship could lead to better preparation in leadership education programs and an improvement in leadership practices as leaders strive to improve their skills as they relate to emotional intelligence.

CHAPTER 3

METHODOLOGY

The purpose of this study is to determine if there is a relationship between the emotional intelligence of school principals and their transformational leadership style. Mayer and Salovey's (1997) ability model of emotional intelligence and Bass and Avolio's (1990) theory of transformational leadership are the guiding theoretical foundations for this research. A better understanding of the relationship between emotional intelligence and transformational leadership may guide school principals to improve their leadership skills by increasing and improving their emotional intelligence strategies and skills.

In an effort to better understand the relationship between transformational leadership and emotional intelligence, the following research questions were posed:

1. Is there a relationship between emotional intelligence and transformational leadership of school principalship?
2. Do school principals who exhibit transformational leadership behaviors tend to have a balanced positive and negative approach to experienced emotions?
3. Do specific branches of emotional intelligence positively correlate with transformational leadership?
4. Is there a relationship between emotional intelligence and other non-transformational leadership styles in the school principal?
5. Are emotional intelligence and transformational leadership related to the effectiveness of a school principal?

Hypotheses

Based on the results of previous studies using the same measurement tools, (Clarke, 2010; Jin et al., 2008; Leban & Zulauf, 2004) and in an effort to discover answers to the research questions, the following null hypotheses were established:

1. There is no correlation between emotional intelligence and transformational leadership.
2. There is no correlation between transformational leadership and the MSCEIT positive-negative bias score.
3. There is no correlation between transformational leadership and the management and use emotional intelligence branches.
4. There is no correlation between emotional intelligence and non-transformational leadership styles.
5. There is no correlation between emotional intelligence and principal effectiveness.
6. There is no correlation between transformational leadership and principal effectiveness.

While this study is concerned with the relationship between transformational leadership and emotional intelligence, null hypothesis four tests whether there is a relationship between emotional intelligence and other types of leadership styles. Considering a wide range of leadership styles, the research should reveal that other non-transformational leadership styles do not correlate positively with emotional intelligence scores.

These null hypotheses were generated with the expectation that there is a positive relationship between emotional intelligence and transformational leadership.

Furthermore, it is believed that both emotional intelligence and transformational leadership are positively related to effectiveness.

Sample

The participants in the study included 30 elementary, middle and high school principals from the states of Louisiana, Georgia, and Iowa, along with five to seven teachers who worked with each of the principals. These principals were not randomly chosen but were invited to be participants in the study. This invitation was extended to specific principals of schools in Georgia, Iowa, and Louisiana requesting their participation. There were no limiting factors on choice of participants in relation to years of experience, race, gender, or location. The 30 principals completed the MSCEIT. Each principal was asked to name 15 teachers in their school who could rate the principal's leadership style by completing the transformational leadership questionnaire, the MLQ. Principals were asked to recommend teachers with various years of experience ranging from 1-5 years, 6-10 years and over 15 years of experience. The principals were told that the teachers should also represent different subjects or grade levels. These guidelines would help to ensure that the teachers participating had varying levels of experience and perspectives. For purposes of anonymity, 7 of the 15 teachers recommended were randomly selected to be invited to complete the survey. Five to seven teacher surveys were completed for each principal. All principals had worked with their teachers for a minimum of nine months prior to being rated.

Mayer Salovey-Caruso Emotional Intelligence Test

Given the fact that this study is based on the ability model of emotional intelligence as defined by Mayer and Salovey (1997) and the concerns that have been

voiced about the validity of the ECI-2 and the EQ-I as measures of emotional intelligence (Brackett & Mayer, 2003; Grubb & McDaniel 2007; McEnrue & Groves, 2006; Wilhelm, 2005), the MSCEIT was chosen for this study. This test, which was developed to measure the ability aspects of emotional intelligence, was accessed and completed in an online format by the principals. The MSCEIT v.2 is the most current improved version of its precursors (the Multi-branch Emotional Intelligence Scale (MEIS) and the MSCEIT v.1) which was developed by Mayer, Salovey, and Caruso (Mayer et al., 2000a; Mayer et al., 2002). All references, henceforth, to MSCEIT v.2 will be cited as MSCEIT unless otherwise noted.

The MSCEIT yields a score for overall emotional intelligence, two area scores, four branch scores, and eight task scores. The structure of the test is shown in Figure 1.

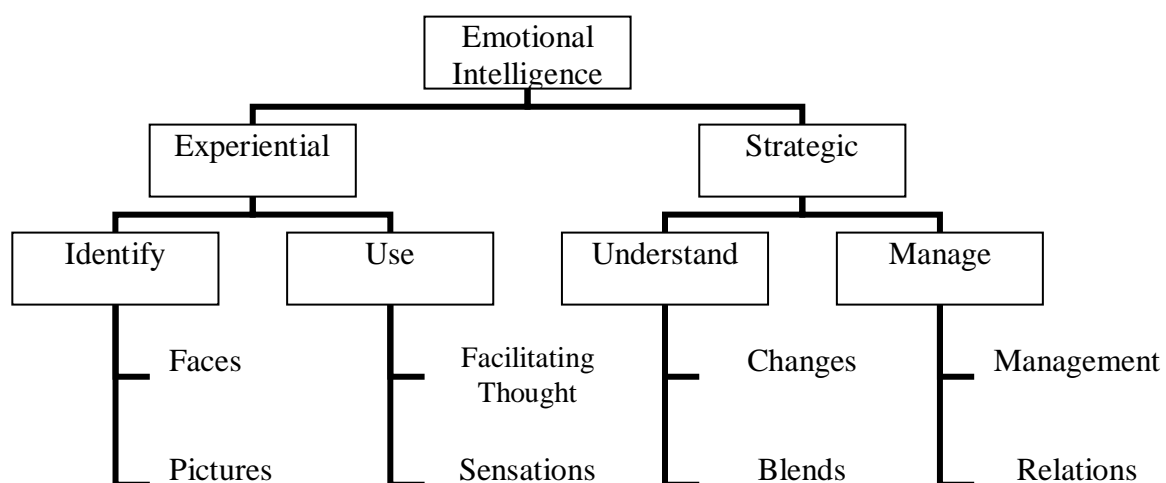


Figure 1. MSCEIT Scoring Structure. The MSCEIT yields a total score, 2 area scores, 4 branch scores and 8 tasks scores.

The MSCEIT also yields a positive-negative bias score which is based on the raw score responses to the pictures and faces test items. This score can be an indicator of a tendency to read situations as overly positive or negative.

The MSCEIT is reliable and content valid and measures a specific set of abilities (Brackett & Mayer, 2003; Mayer, Salovey, & Caruso, 2007/2000). Its development was based on the belief that emotional intelligence involves the ability to use emotions to solve problems (Mayer et al., 2007/2000). While it should be noted that there have been mixed results and partial support evidenced in some of the current research on the validity of the MSCEIT (Day & Carroll, 2004; Palmer, Gignac, Manocha, & Stough, 2005; Rode et al., 2008), research supports the MSCEIT as having a relatively higher content and construct validity than other measures of emotional intelligence (McEnrue & Groves, 2006). As compared to other measures, the MSCEIT represents the most appropriate assessment of emotional capabilities (Wilhelm, 2005).

MSCEIT Reliability

Internal consistency of the scales was assessed using a standardization sample as reported in the MSCEIT Users Manual (Mayer et al., 2002) and shown in Table 3. The full scale emotional intelligent quotient (EIQ) reliability of the MSCEIT is reported as .91, while the experiential and strategic reliability scores are .90 and .86, respectively. Branch scores range from .76 to .90.

MSCEIT Validity

Construct validity will be addressed in respect to the different sub-groups of the concept. Construct validity is measured by comparing the results to other measures which measure the same concept and is determined over a period of many years (Mayer et al., 2002). In respect to convergent validity, this is difficult to evaluate in the case of the MSCEIT (Day & Carroll, 2004). While this assessment measures ability, other validated tools that exist include the measurement of traits and personality components. Herein lies

the difficulty in comparing the MSCEIT with other measures. Research shows little to no

Table 3

<i>MSCEIT Reliability</i>	
Tiers	Reliability of Expert Scoring*
Total EIQ	.91
Experiential	.90
Identifying	.90
Using	.76
Strategic	.86
Understanding	.77
Managing	.81

*Split-half reliabilities are reported.

convergence between the MSCEIT and other popular emotional intelligence tests which use self-reporting and/or survey models. Since the definition and theory of emotional intelligence varies greatly among theorists, one would expect this lack of convergence (Brackett & Mayer, 2003). Given that emotional intelligence theory is still in its early stages of development and exploration, it is not unusual to have contradicting research as hypotheses surrounding the theory are tested (Chermiss et al., 2006). Convergence validity *is* realized when comparing the two MSCEIT scoring methods: general consensus scores and expert consensus scores (Palmer et al., 2005). This was one of the improvements noted in the MSCEIT over the MEIS (Mayer et al., 2002).

Discriminant validity has been established in research studies indicating that the MSCEIT measure can be separated and distinguished from measures of personality and well-being, thus ensuring that it is a measure of an ability of emotional intelligence

(Brackett & Mayer, 2003; Ciarrochi et al., 2000). Of particular interest in establishing discriminant validity is the separation of emotional intelligence abilities as defined by Mayer and Salovey (1997) from the Five Factor Model of Personality Traits (McCrae, 1991). This is important as the authors of the MSCEIT have continuously argued that the measure of emotional intelligence does not include an analysis of personality traits (Mayer et al., 2007).

Structural or factorial validity has been established and is described in detail in the MSCEIT User's Manual (Mayer et al., 2002). The MSCEIT consist of three tiers: eight tasks, four branches and two higher level areas. Highly acceptable goodness-of-fit indices (GFI) were produced using the expert consensus scoring method as noted in Table 4 with the target criteria being $GFI > .85$. The total score yielded a .96 GFI. The goodness-to-fit indicators for the areas, branches and subscales were 1.00, .99, and .97 respectively.

Table 4

<i>MSCEIT Factorial Validity</i>	
MSCEIT Tier	Goodness-of-Fit Index
8 Subscales	.97
2 Areas	1.00
4 Branches	.99
Total	.96

Brackett and Mayer (2002) also found evidence of incremental validity for the MSCEIT when personality and verbal Scholastic Aptitude Test (SAT) scores were controlled. The results indicated that lower MSCEIT scores still predicted social

deviance. Researchers have also found a relationship between MSCEIT scores and job performance (Ciarrochi et al., 2000; Mayer, Salovey, & Caruso, 2004; McEnrue & Groves, 2006; Rode et al., 2007). The MSCEIT content is strictly aligned with the Mayer and Salovey (2007/1990) ability model (Mayer, Salovey, Caruso, & Sitarenios, 2003).

MSCEIT Scoring

The difficulty in developing any ability test lies within the scoring method. What is a correct answer? To establish correct answers on the MSCEIT, the authors developed an ability scale based on both a general consensus scoring method and an expert consensus scoring method. Users have the option of choosing either of these scoring methods (Brackett & Mayer, 2003; Mayer et al., 2007/2000). The general consensus scores are obtained by a means of standardization using a sample of 5000. The expert consensus scores were obtained from a sample of 21 experts in the field of emotional intelligence drawn from members of the International Society for Research in Emotions (ISRE). Members of ISRE are scientists and other scholars who are committed to the study and research of emotions (Mayer et al., 2002). While the MSCEIT user manual recommends using the general consensus method, later studies have shown that the expert scoring method has a higher inter-rater agreement than the general group. It was determined through this research that the expert scoring method is more reliable (Mayer et al., 2003). MSCEIT raw scores are converted to a standard score, $M = 100$ and $SD = 15$ (Mayer et al., 2002; Mayer et al., 2007/2000). For the purpose of this study, the expert consensus scoring method will be used. The four branches of emotional intelligence (e.g., identifying, using, understanding, and managing) are scored using items that draw on eight different tasks. In the faces task, the participant views pictures of faces and

indicates the degree of a particular emotion. The picture task is similar, with the only difference being that landscapes and abstract designs are viewed. In the sensations task, an emotion is generated and matched with a sensation such as hot or cold. The facilitations task requires a judgment to be made about moods that are paired with specific cognitive tasks and behaviors. The blends task involves identification of emotions that can be combined to form other emotions. In the changes task, an emotion is identified that is the result of an intensification of other feelings. The emotional management task consists of stories, and the respondent is asked to determine the actions that are most effective for obtaining a specific target outcome. Lastly, the emotional relationship task asks the respondent to choose actions that are effective in the management of others' emotions (Mayer et al., 2007/2000).

Administering the MSCEIT

To be able to administer the MSCEIT online and interpret the results, certification was acquired through a three-day workshop. Next, an account was established with Multi-Health Systems (MHS), the company who owns the rights to the test. The administration process of the MSCEIT was handled through MHS. Principals were invited via email to participate in the study. When principals agreed to participate they were added to the administration group within the MHS account. If principals did not respond to the initial invitation email within seven days, a second invitation email was sent. Once principals agreed to participate in the study they were asked to visit the MHS website and were given a code to log in and complete the assessment. MHS sent notification emails as the principals completed the assessment, and score reports were

viewed through this account. The online version of the MSCEIT typically takes between 30 minutes to an hour to complete.

MSCEIT Ethical Considerations and Confidentiality

If principals wished to receive their emotional intelligence scores, a phone conference explaining the scores was offered. Since the MSCEIT score is designed to reflect an ability, this can sometimes be taken personally by the person receiving the information. Hence, it is important for the test takers to have the scores interpreted for them, allowing them to ask questions for clarification. Scores on the MSCEIT were shared only upon request. It was also important to protect the confidentiality of all participants. With this in mind, the principals were informed that under no circumstances would their scores be shared with anyone.

Multifactor Leadership Questionnaire

Bass and Avolio's Multifactor Leadership Questionnaire 5X (MLQ) was used to measure the transformational leadership style of principals. The MLQ is the most extensively used tool for measuring transformational leadership in research and commercial settings over the past 25 years in businesses, hospitals, religious institutions, military organizations, government agencies, colleges, and schools (Avolio & Bass, 1999; Eid et al., 2004; Garman, Davis-Lenane, & Corrigan, 2003; Judge & Piccolo, 2004; Tejada, 2001). The latest version of the questionnaire, the MLQ-5X, has been used around the world in nearly 300 research programs, doctoral dissertations and masters' theses. (Avolio & Bass, 2004). The MLQ measures transformational, transactional, and passive/avoidant leadership styles. The MLQ is a 360 degree tool, having a self-report version as well as a version for other raters. Raters can be chosen from a higher level in

the organization, from the same level, or could be employees who report directly to the target leader. It is recommended that a minimum of three raters is needed to receive accurate feedback. The MLQ online version of the questionnaire was completed by five to seven teachers who work with and report directly to the principal in the study. This version is comprised of 45 items using a five response Likert scale ranging from *frequently, if not always* to *not at all* and is recommended for organizational survey purposes and research by its authors (Avolio & Bass, 2004). Questions on the MLQ focus on the individual behaviors of the leader. Since the measurement section focusing on transformational leadership is interested in behaviors that transform others, the questions have been designed to focus on how the leader's behavior affects those colleagues with whom he/she works (Avolio & Bass, 2004).

The MLQ has been revised several times since its first implementation in 1985, and the instrument has evolved into a full range leadership measure. This measure of leadership styles includes dimensions from one end of the scale which are fully transformational to the extreme other end of the spectrum, where passive and avoidance behaviors are measured (Avolio & Bass, 2004). The latest version of the MLQ is designed to yield measures of nine factor scales. These include the four transformational behaviors, with idealized influence being reported in two scales. Studies conducted on the validity of the MLQ found that idealized influence can be viewed as a behavior *and* as an impact on others as it is linked to the relationship between the leader and the follower. With this information, the MLQ authors chose to divide idealized influence into an attributed and a behavior scale, thus adding a fifth score to the transformational scores. Other dimensions of leadership measured by the MLQ include contingent reward, active

management-by-exception, passive management-by-exception, and laissez-faire leadership (Avolio & Bass, 2004). Bass (2008) refers to contingent reward as being a set of constructive transactional behaviors where rewards are given in return for satisfactory work. These rewards can range from positive feedback and praise to monetary compensations. Originally, contingent reward was viewed as being solely transactional, but Bass (2008) acknowledges that it actually correlates somewhat with transformational leadership behaviors. Both the active and passive management-by-exception behaviors are considered corrective interactions by Bass (2008). The active leader in this case monitors performance and takes corrective actions in a proactive manner, while the passive leader takes no corrective action until mistakes have been made. Laissez-faire leaders are inactive and leave most of their responsibilities to their subordinates. These leaders tend to seem indifferent to what is happening around them and don't take stands on important issues. The passive form of management-by-exception, as well as laissez-faire leadership, are characterized as avoidance types of leadership (Bass, 2008).

The MLQ also yields scores for leader effectiveness, follower satisfaction, and extra effort. Extra effort refers to the extra effort that the follower exerts due to the leader's behavior. A separate score can be achieved in each of the areas. For the purpose of this study, total transformational scores will be used to prove hypotheses one, two, three, and six. Contingent reward, passive management-by-exception, active management-by-exception, and laissez faire scores will be analyzed to prove hypothesis four. Effectiveness, satisfaction, and extra effort scores will be combined to reach an overall effectiveness score for each principal. This score will be correlated with the

principals' emotional intelligence score and transformational leadership score to prove hypotheses five and six respectively.

MLQ Reliability

Reports from the MLQ manual (Avolio & Bass, 2004), based on the most recent United States normative sample, indicate that MLQ scores for the transformational characteristics were found to have reliabilities ranging from .70 to .83, as listed in Table 5. This data is taken from the sample of raters at a lower level in the organization (follower rating).

Table 5

<i>MLQ Reliability Scores</i>	
Transformational Characteristic	Reliability (Follower Rating)
Idealized Influence-Attributed	.77
Idealized Influence-Behavior	.70
Inspirational Motivation	.83
Intellectual Stimulation	.75
Individualized Consideration	.80

Other studies have substantiated these claims with similar results (Lowe & Kroeck, 1996; Tejada, 2001). Intercorrelations were found to be high among the transformational scales. There was also a positive and significant correlation between the transformational scores and the contingent reward scores. This would be expected since both transformational and transactional behaviors are active. In addition, strong leaders have been noted to exhibit both of these behaviors (Lowe & Kroeck, 1996). A low or

negative correlation was found between the transformational scales and the passive/avoidance scales (Avolio & Bass, 2004).

MLQ Validity

To test the construct validity of the MLQ, its authors have completed studies testing the present nine factor model against various other models. The nine factor model has been demonstrated as being superior with a goodness-of-fit index of .91 for a follower rating (Avolio & Bass, 2004). While some studies have reported low discriminant validity between the transformational scales, construct validity based on the overall transformational leadership concept has been found to be valid (Carless, 1998). Furthermore, discriminant validity has been established between transformational leadership scales and the other scales on the MLQ (Tejeda, 2001).

External predictive validity of the MLQ has been established over the years as multiple studies have indicated that high MLQ transformational scores have been consistent with strong, positive transforming leadership as viewed by those being led. These high scores have also been consistent with positive productivity results. This is consistent across businesses, government settings, schools and military organizations (Eid et al., 2004; Howell & Avolio, 1993; Parry & Proctor-Thomson, 2002). Judge and Piccolo (2004) also report that the MLQ transformational scales correlate with employee satisfaction and motivation.

A common method variance concern should be noted since principal effectiveness is being derived from items on the MLQ, which is also the tool used to measure transformational leadership. While this method for measuring leadership effectiveness is somewhat limited, there should be no issue since the effectiveness items and

transformational items are not common. Overall, the MLQ has been widely studied and has been found to exhibit internal consistency, rest-retest reliability, external predictive validity, and construct validity (Eid et al., 2004; Garman et al., 2003; Howell & Avolio, 1993; Lowe & Kroeck, 1996).

Administering the MLQ

The MLQ can typically be completed in 30 minutes or less (Avolio & Bass, 2004). The rater version of the MLQ was administered online to a minimum of five teachers who presently work in the same school with the principal. After the principal recommended 15 teachers for the study, seven were randomly selected to receive the invitation to participate with the intention of securing a minimum of five teacher raters. If teachers did not reply within 7 days, a follow-up email was generated. In cases where five teacher raters could not be secured from the first seven chosen, more were selected in groups of two until the five raters could be secured. Using five raters exceeds the minimal recommendation of three as stated in the MLQ manual (Avolio & Bass, 2004). Once the principal supplied the names and email addresses of the teachers, they were contacted directly via email. The principal was not included in any other communication with the selected teachers.

The MLQ is published by Mind Garden, Inc. and has a very accommodating process for administering the survey and reporting the results via the internet. After establishing an account with Mind Garden, teacher names and emails were recorded. Mind Garden then sent the invitation to complete the survey to the teachers. Teachers were able to access the survey directly from the Mind Garden email. For research purposes, the scores were reported as raw data for each person being rated. The raters

evaluated how frequently or to what degree they have observed their principal engage in 32 specific behaviors.

MLQ Ethical Considerations and Confidentiality

While the principal recommended the teacher raters, the principal did not know which teachers were invited to participate, and the teacher scores were completely confidential. To protect the anonymity of the raters, MLQ scores were not shared with the principal.

Data Collection and Analysis

MSCEIT scores of principals and MLQ teacher rater scores were attained via the online process offered by Multi-Health Systems, Inc. and Mind Garden, Inc. respectively. Two sets of scores for each principal were used in the data analysis: the MSCEIT score and the mean of the raters' MLQ scores. Statistics for the Social Sciences (SPSS) software was used to analyze the data.

The null hypotheses and associated variable scores are identified in Table 6. For null hypothesis 1-5, the emotional intelligence variable was obtained from the MSCEIT scores, while the transformational leadership variable for null hypotheses 1-4 and 6 were derived from the MLQ scores. The effectiveness variables for null hypotheses 5 and 6 were taken from the MLQ. The transformational score is obtained by combining the four characteristic scores: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

For null hypothesis 2, the MSCEIT positive-negative bias score was used to test the degree of balance in leaders' reaction to experienced emotions. The positive-negative bias score indicates whether the person tends to have a more positive or negative

Table 6

Null Hypotheses and Associated Variables

H ₀	EI	TL	Effectiveness
	Variable(s)	Variable(s)	Variable(s)
1	Total MSCEIT	MLQ- II, IM, IS, & IC (Combined to yield TL)	
2	MSCEIT Pos-Neg Bias	MLQ- II, IM, IS, & IC (Combined to yield TL)	
3	MSCEIT Manage & Use (Combined)	MLQ- II, IM, IS, & IC (Combined to yield TL)	
4	Total MSCEIT	a. MLQ-Transactional CR b. MLQ-Active MbE c. MLQ-Passive MbE d. MLQ-LF Leadership	
5	Total MSCEIT		MLQ-Effectiveness, Extra Effort, & Satisfaction score (Combined)
6		MLQ- II, IM, IS, & IC (Combined to yield TL score)	MLQ-Effectiveness, Extra Effort, & Satisfaction score (Combined)

Note. Idealized Influence = II; Inspirational Motivation = IM; Intellectual Stimulation = IS; Individual Consideration = IC.

perception of emotional situations.

Null hypothesis three involved combining the manage and use branch scores to form the emotional intelligence variable. A computed score of these two branches can indicate the likelihood that a person would become overwhelmed by their experienced emotions.

For null hypothesis four, the non-transformational leadership scores were derived from the MLQ's measurement of the following leadership behaviors: a. contingent reward, b. active management-by-exception, c. passive management-by-exception, and d. laissez-faire leadership.

For both null hypothesis five and six, the effectiveness variable was the combined effectiveness, extra effort, and satisfaction MLQ scores, which yielded an overall effectiveness score. The effectiveness items on the MLQ reflect actions that result in meeting organizational requirements as well as others' individual needs, representing the group at high levels and leading an effective group. The extra effort items refer to increasing others' willingness to exert extra effort, getting others to exceed their own expectations, and heightening others' desire to succeed. Satisfaction items address methods of leadership that are satisfying to others and the ability to work with others in what is perceived as a satisfactory manner (Avolio & Bass, 2004). An examination of the overall emotional intelligence and transformational leadership scores in relation to the effectiveness scores yield results for null hypothesis five and six.

Chapter 4

DATA ANALYSIS

This chapter contains the presentation of the data and subsequent analysis used to address the research questions and hypotheses posed in this study. The first section describes the participants and sampling procedures. The second section discusses the MSCEIT and MLQ scores. Data interpretation and analysis as they apply to each hypothesis are included in the third section. The last section summarizes the results of this study.

Sampling

Invitations to participate in the study were emailed to 128 principals residing in the states of Louisiana, Georgia, and Iowa resulting in a 23.44% return rate. These principals were chosen either blindly or because they were recommended by colleagues to the researcher. Blindly, in this sense, is intended to mean that principals from an entire school district were invited to participate. In other instances, participants were chosen individually based on colleague recommendation. As noted in Table 7, eighteen of the principals were female, and twelve were male. Three principals were African-American, and twenty-seven were Caucasian. Nineteen principals in the study led elementary schools, four principals led middle schools, six principals were at the high school level, and one principal was responsible for a combination of middle and high school. The principals all worked in public schools except for one who was the administrator of a private school. The age of the principals ranged from 33 to 68 years of age with a median age of 43.5 years as shown in Table 8.

Scores Acquired from Measurement Instruments

All data for the study were acquired through the online administration of the MSCEIT and the MLQ. All communication with the participants was via email. The data from the MSCEIT and the MLQ were collected over a spring semester (January through May 2010). Statistical Package for the Social Sciences (SPSS) software was used to correlate and analyze the data.

Table 7

Principals' Descriptive Data

Demographics	Frequency	Percentage
Gender		
Female	18	60
Male	12	40
Race		
African-American	3	10
Caucasian	27	90
Level		
Elementary	19	63
Middle & High	11	37

Table 8

Sample Age

	N	Minimum	Maximum	Median	Mean
Age	30	33	68	43.5	45.0667

MSCEIT

The emotional intelligence of the principals was measured by the MSCEIT. Once an account was established with Multi-Health Systems, the company which publishes the MSCEIT, the principals were directed to the site to complete the assessment. Upon

completion, the scores were accessible to the researcher. For the purposes of this correlational study, standard scores were used to represent abilities in each of the four branches: identifying, using, understanding and managing emotions. The total MSCEIT and the positive-negative bias score are also represented as standard scores. The mean MSCEIT scores for the principals can be found in Appendix A. The principal MSCEIT scores distributed with a slight positive skew. Given the fact that the sample is relatively small, this should not be a concern. The histogram depicting the frequency distribution for the MSCEIT can be found in Appendix C.

MLQ

Teachers completed the MLQ rater survey for their respective principals. Once an account was established with Mind Garden, Inc., the company which manages the administration of the MLQ, teachers who had agreed to participate were directed to the online MLQ survey. In an attempt to secure five to seven rater scores for each principal, a total of 302 teachers were invited to participate via email with 161 accepting the invitation. Once a minimum of five teachers associated with a specific principal had completed the MLQ, the scores were extracted from the Mind Garden data base. The MLQ uses a Likert scale of 0-4, with 4 being most frequent. These scores were reported as raw data for each of the 45 questions on the MLQ. Using the key to the MLQ, which indicates which question measures specific leadership styles or effective leadership actions, scores from each of the questions were combined and averaged to reflect the mean score for each leadership style and effective leadership behavior. The individual teachers' mean ratings were combined to give each principal an overall mean score for leadership styles and effectiveness. These mean scores represented the MLQ data for

correlational purposes and can be found in Appendix B. The distribution of scores for the MLQ are presented in a histogram in Appendix C. While the transformational scores were somewhat bimodal, it should be noted that with a small sample size, one or two principal scores could cause this distribution to not appear to be a normal distribution. The principal effectiveness scores were slightly negatively skewed and can be found in Appendix D.

Interpretation of Data

This section will discuss the data in relation to each null hypothesis. Null hypothesis 1 states that there is no correlation between emotional intelligence and transformational leadership. The alternative hypothesis supports a theory that there is a positive relationship between emotional intelligence (EI) and transformational leadership (TL). To test this theory, the principals' total MSCEIT scores were correlated with their total MLQ teacher rater scores.

Analysis of the data indicated that the principals' emotional intelligence and transformational leadership styles were positively correlated, Pearson's $r(30) = .37, p < .05$. This positive correlation is indicated in Table 9 and suggests that there is a relationship between the emotional intelligence and transformational leadership of the principals.

Table 9

<i>TL and EI Correlation</i>		TL
EI	Pearson Correlation	*.37
	Sig. (2-tailed)	.04962
	N	30

*Correlation is significant at .05

The scatter plot in Figure 2 further clarifies this positive relationship. Null hypothesis 1 is rejected.

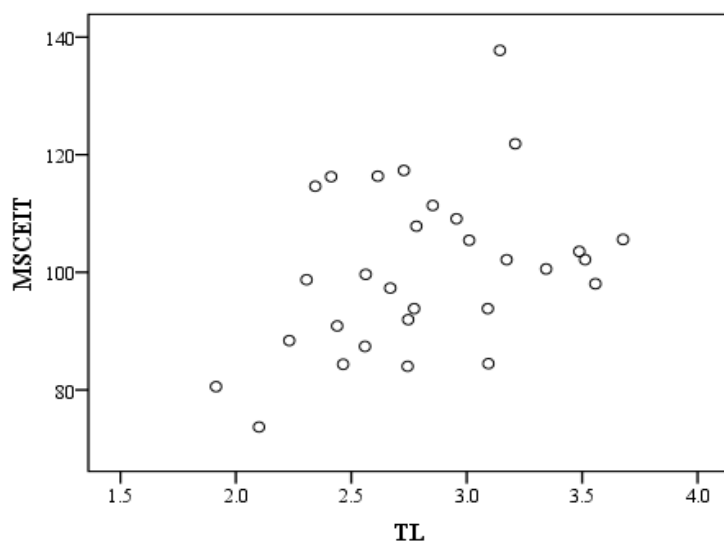


Figure 2. MSCEIT/MLQ Scatter Plot

Null hypothesis 2 states that there is no correlation between transformational leadership and the MSCEIT positive-negative bias score. The positive-negative bias standard score reflects the tendency to assign positive or negative emotions to various pictorial stimuli in relation to the normed group. Higher scores reflect a tendency to perceive situations in a positive manner while lower scores indicate a tendency to assign a negative association to the situations. Overly positive or negative scores could indicate that the person misreads emotional experiences (Mayer et al., 2002). To test this hypothesis, the positive-negative bias scores derived from the MSCEIT were correlated with the MLQ total transformational scores. As shown in Table 10, the correlation between the positive-negative bias scores and the transformational leadership scores is not significant, Pearson's $r(30) = .03, p > .05$. The scatter plot in Figure 3 also verifies that there is no significant relationship between positive-negative bias scores of the

MSCEIT and the transformational leadership mean score. Therefore, null hypothesis 2 is accepted.

Table 10

Positive-Negative Bias/TL Correlation

		TL
P/N Bias	Pearson Correlation	.03
	Sig. (2-tailed)	.869
	N	30

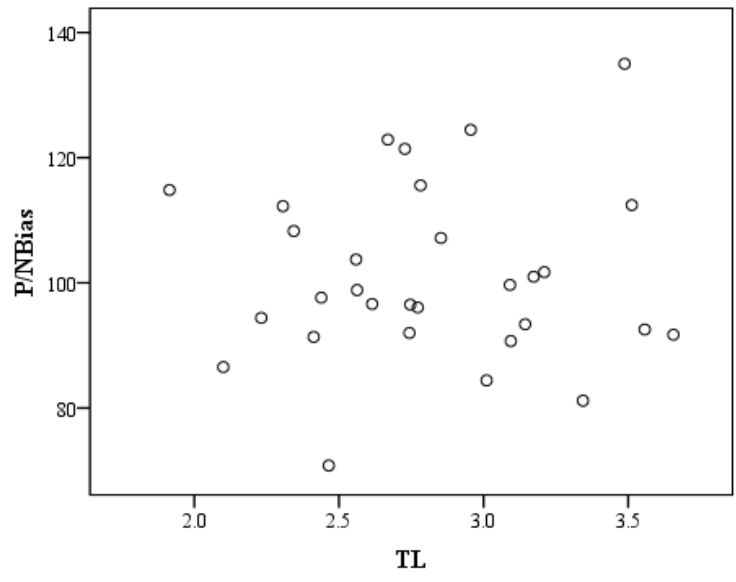


Figure 3. Positive-Negative Bias/TL Scatter Plot

Null hypothesis 3 asserts that there is no correlation between transformational leadership and the management and use emotional intelligence branches. The combined score of the management and use branches could indicate the degree of likelihood that the principal could become overwhelmed by experienced emotions. The alternate hypothesis

would indicate that transformational leaders' MLQ scores would positively correlate with the management and use branches.

As displayed in Table 11, a significant positive correlation was found between the combined manage and use branches of emotional intelligence and transformational leadership, Pearson's $r(30) = .46, p < .05$.

Table 11

<i>Manage and Use Branches/ TL Correlation</i>		TL
Manage/Use	Pearson Correlation	*.46
	Sig. (2-tailed)	.01035
	N	30

*Correlation is significant at .05

Transformational leadership scores increased with the increase of manage and use scores as signified in the scatter plot in Figure 4. This moderate significant relationship supports the rejection of null hypothesis 3.

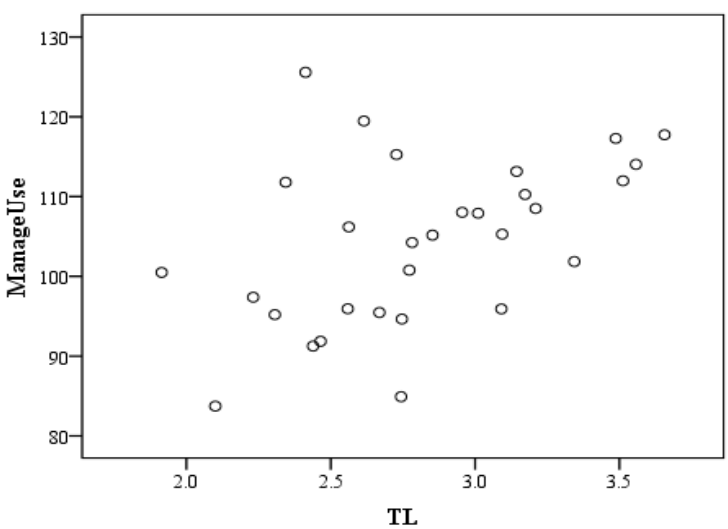


Figure 4. Manage and Use/ TL Scatter Plot

Null hypothesis 4 asserts that there is no correlation between emotional intelligence and non-transformational leadership styles. The study tested this hypothesis using four leadership styles measured by the MLQ and indicated in Table 12. Null hypothesis 4a tested the correlation between contingent reward and emotional intelligence, finding a significant positive correlation, Pearson's $r(30) = .38$, $p < .05$, as shown in Table 12. This positive relationship can also be examined in the scatter plot in Figure 5.

Table 12

<i>MSCEIT/Leadership Styles Correlation</i>				
	a.) Contingent Reward	b.) Active Management-by-Exception	c.) Passive Management-by-Exception	d.) Laissez-faire
EI Pearson's r	*.38	.15	.02	-.15
Sig. (2-tailed)	.037	.416	.925	.43
N	30	30	30	30

*Correlation is significant at .05

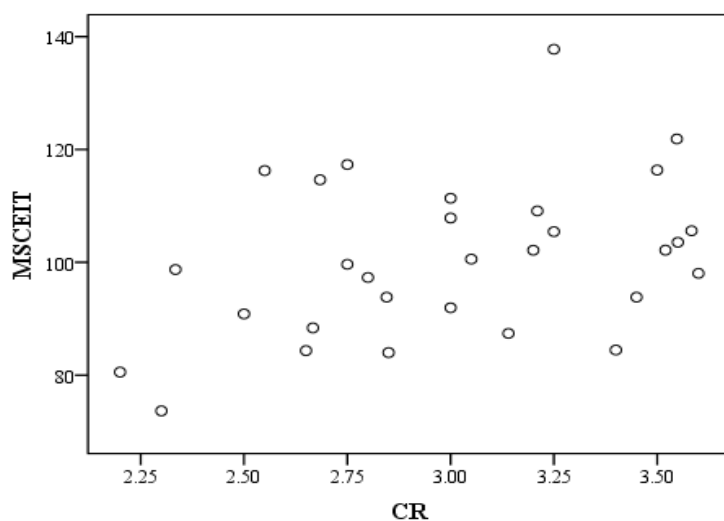


Figure 5. MSCEIT/CR Scatter Plot

Due to the evidence of a significant relationship between contingent reward and emotional intelligence, null hypothesis 4a is rejected. Contingent reward refers to the proactive monitoring and positive feedback utilized by leaders. This could be explained by Bass' (2008) belief that contingent reward shares some common aspects of transformational leadership.

Null hypothesis 4b tested the correlation between active management-by-exception leadership and emotional intelligence. Active management-by-exception refers to the constructive, proactive transactional aspects of leadership. As displayed in Table 12, there is no evidence of a significant correlation, Pearson's $r(30) = .15, p > .05$, between this leadership style and emotional intelligence. Figure 6 further demonstrates the lack of a relationship. Thus, null hypothesis 4b is accepted.

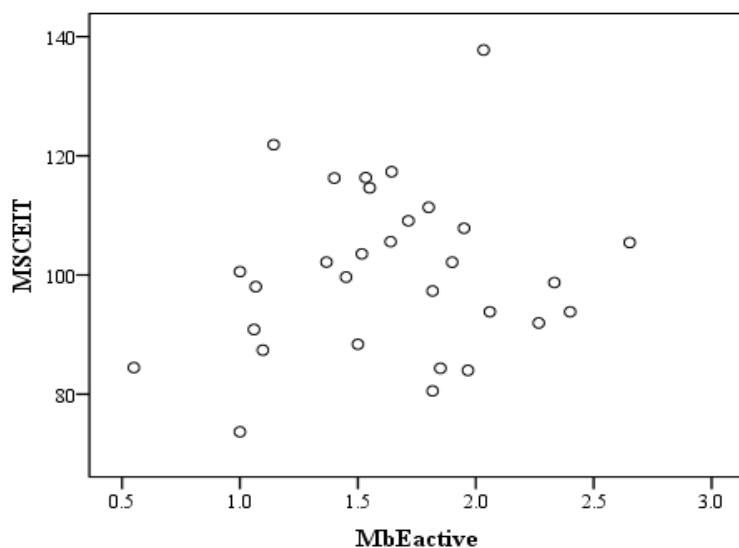


Figure 6. MSCEIT/MbE-Active Scatter Plot

Null hypothesis 4c examined the correlational relationship between passive management-by-exception leadership and emotional intelligence. This passive leadership style is more reactive in nature, with the leader becoming involved only when punitive measures are needed to correct problems. There is no significant correlation between

passive management-by-exception and emotional intelligence, Pearson's $r = .02$, $p > .05$, as shown in Table 12. Figure 7 illustrates the lack of correlation between the MSCEIT and passive management-by-exception. Null hypothesis 4c is accepted.

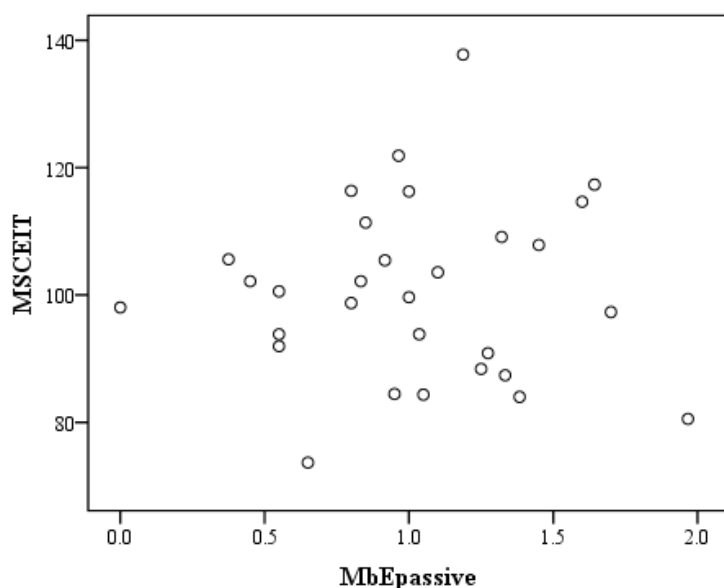


Figure 7. MSCEIT/MbE-Passive Scatter Plot

Null hypothesis 4d is the last non-transformational leadership style considered in the study. This hypothesis tested the correlation between laissez-faire leadership and emotional intelligence. Laissez-faire leadership is described as inactive leadership, leaving all decisions and responsibilities to the subordinates (Bass, 2008). As evidenced in Table 12, the relationship between laissez-faire leadership and emotional intelligence is negative but insignificant, Pearson's $r = -.15$, $p > .05$, hence; hypothesis 4d is accepted. While insignificant, the scatter plot in Figure 8 illustrates the negative relationship that exists between emotional intelligence and passive management-by-exception.

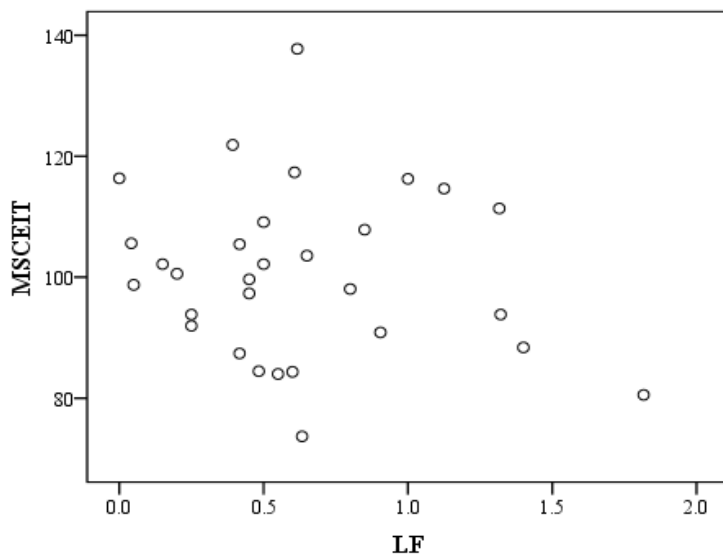


Figure 8. MSCEIT/LF Scatter Plot

Null hypothesis 5 stated that emotional intelligence is not correlated to principal effectiveness. The suspected alternative hypothesis would reflect a positive correlation between the two constructs. The correlation between emotional intelligence and the effectiveness mean were found to be positively significant, Pearson's $r = .38$, $p < .05$ as shown in Table 13.

Table 13

Effectiveness Correlations

		Emotional Intelligence	Transformational Leadership
Effectiveness	Pearson's r	*.38	** .90
	Sig. (2-tailed)	.039	.000
	N	30	30

*Correlation is significant at .05

**Correlation is significant at .01

To measure effectiveness, the extra effort, effectiveness, and satisfaction scores taken from the MLQ were averaged to arrive at a mean effectiveness score (as rated by

each teacher). The scatter plot in Figure 9 verifies this positive relationship. Null hypothesis 5 is rejected.

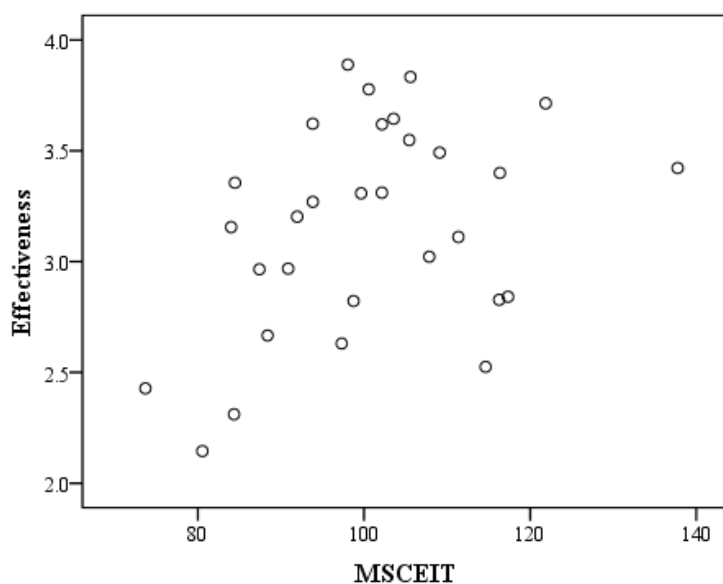


Figure 9. Effectiveness/EI Scatter Plot

Null hypothesis 6 stated that transformational leadership is not correlated to principal effectiveness. The alternative hypothesis is similar to hypothesis 5 in that a positive correlation is suspected. The transformational total score and the same effectiveness scores as described in hypothesis 5 were correlated. It was evident that a very significant positive relationship did exist, Pearson's $r = .90$, $p < .01$. These results are indicated in Table 13. The scatter plot for the effectiveness and MLQ scores can be found in Figure 10. Based on this positive correlation, null hypothesis 6 is rejected.

Null hypotheses, correlations, and their corresponding results are indicated in Table 14. Rejecting null 1 and 3 indicates support for a relational theory linking emotional intelligence and transformational leadership. A connection between perceived

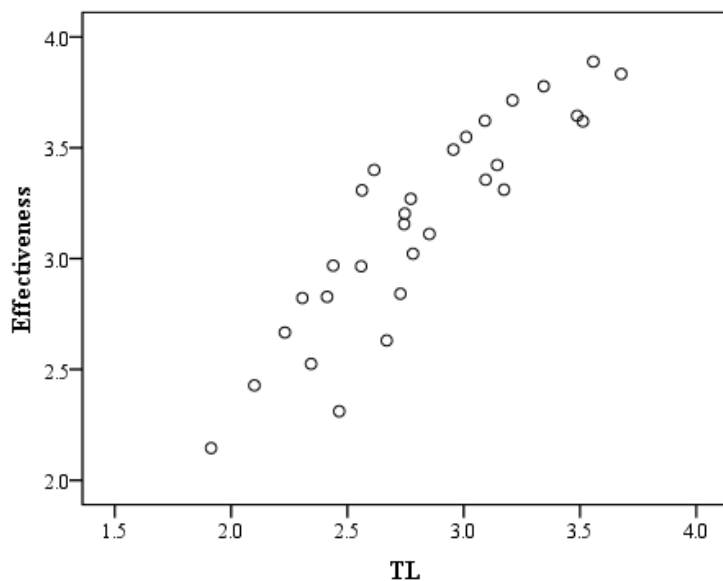


Figure 10. Effectiveness/TL Scatter Plot

Table 14

Null Hypotheses and Corresponding Results

H_0	Correlation	Results/Accept or Reject
1	EI & TL	Significant/Rejected
2	MSCEIT Positive/Negative Bias & TL	Not Significant/Accepted
3	MSCEIT Manage/Use & TL	Significant/Rejected
4a	EI & Contingent Reward	Significant/Rejected
4b	EI & Management-by-Exception Active	Not Significant/Accepted
4c	EI & Management-by-Exception Passive	Not Significant/Accepted
4d	EI & Laissez-Faire	Not Significant/Accepted
5	EI & Effectiveness	Significant/Rejected
6	TL & Effectiveness	Significant/Rejected

effectiveness and both emotional intelligence and transformational leadership was also realized from the analysis of the data. Somewhat mixed results were found in null 4. The MLQ measures a full range of leadership behaviors with transformational leadership being at one end of the spectrum and laissez faire leadership on the opposite end. This study found that transformational and contingent reward behaviors correlated significantly with emotional intelligence. Moving down the leadership behavior spectrum on the MLQ, correlations were insignificant and less with each behavior ending with a negative (insignificant) relationship with laissez faire. It seems the further removed from transformational behaviors, the less of a correlation with emotional intelligence was evident.

CHAPTER 5

SUMMARY AND CONCLUSIONS

The purpose of this study is to better understand the relationship between the emotional intelligence, transformational leadership style, and effectiveness of school principals. Understanding this relationship could assist in the curriculum planning and design of educational leadership certification programs and school leadership professional development. Correlation was used to examine the relationship between the two constructs and also to evaluate the effectiveness of emotional intelligence and transformational leadership skills as perceived by teachers who worked with the principals involved in the study.

This chapter will summarize the research and draw conclusions based on the data presented in chapter 4 in relation to each research question and its respective hypothesis. Limitations of the research will be discussed, as well as implications and recommendations for principal leadership training and future studies in the area of principal leadership.

Discussion

Null hypothesis 1 addressed the first research question, which focused on the relationship between emotional intelligence and transformational leadership. The MSCEIT total score and the mean of the MLQ teacher raters' total score were correlated to test null hypothesis 1. A significant correlation was evident, Pearson's $r(30) = .37, p < .05$. Previous research, as well as the results from testing null hypothesis 5 in this research study, indicates that transformational leadership is perceived as an effective leadership style (Burns, 1978; Koh et al., 1995; Leithwood & Jantzi, 2006; Lucas &

Valentine, 2002; Masi & Cooke, 2000; Ross & Gray, 2006; Seltzer & Bass, 1990). Based on these results, it seems principals would benefit from having a better understanding of transformational leadership behavior as well as an awareness of their emotions, the impact of their emotions on others, and their own reactions to emotional situations.

Research question two addressed the manner in which school principals who exhibit transformational leadership skills tend to approach emotional situations. The mean of the MLQ teacher rater scores was once again used to measure the principals' transformational leadership style. This score was correlated with the MSCEIT positive-negative bias score. This standard score derived from responses to pictorial stimuli indicates a tendency to assign a more positive or negative association with an emotion. The correlation was found to be insignificant, Pearson's $r(30) = .03$, $p > .05$. Reviewing the scatter plot in Figure 3 and using the standard score of 100 as a balanced score, it is evident that higher transformational scores fall at different points in the positive-negative bias range. The same is true for transformational scores at the lower end. This leads to the conclusion that there is no correlation between the balanced nature of responses on the MSCEIT and transformational leadership scores.

The third research question queried whether specific branches of emotional intelligence positively correlated with transformational leadership. Null hypothesis 3 tested the correlation between the combined manage and use scores of emotional intelligence and the MLQ transformational leadership score. The combined manage and use branches can reflect an ability to appropriately handle an emotional or stressful situation without becoming overwhelmed. A higher combined score of these branches indicates a tendency to successfully respond to experienced emotions (D. R. Caruso,

personal communication, September 22, 2009). A lower score would reflect the likelihood of being overwhelmed in stressful emotional situations. Analysis of the data indicated that there is positive significant relationship between the combined management/use score and the transformational leadership score, Pearson's $r(30) = .46, p < .05$, thus leading to a rejection of the null and acceptance of the alternative hypothesis, which establishes a relationship between the manage/use branches and emotional intelligence. Conclusions could be drawn that those principals who tend to be equipped to deal with the day-to-day stressful emotional experiences are also perceived to be more transformational by their teachers. While null hypothesis 3 is concerned with the correlation involving the combined use and manage branches, Table 15 offers some insight into the interaction between each branch of emotional intelligence and transformational leadership. Worth noting is that the manage branch is the only single branch that has a significant correlation with transformational leadership.

Table 15

TL & EI Branch Correlations

		Use/ Manage Combined	Identify	Use	Understand	Manage
TL	Pearson's r	.46*	.22	.28	.19	.41*
	Sig. (2-tailed)	.010	.234	.128	.305	.025
	N	30	30	30	30	30

*Correlation is significant at the 0.05

The fourth research question examined the relationship between emotional intelligence and other non-transformational leadership styles. The reasoning behind this question lies in the exploration as to whether the emotional intelligence relationship with leadership is more prevalent in transformational styles of leadership as opposed to non-transformational leadership styles. Null hypothesis 4 is multifaceted and states that there is no positive correlation between emotional intelligence and non-transformational leadership styles. The MLQ is a full-range leadership assessment tool and yields scores for four non-transformational leadership types of behaviors. Included are contingent reward and management-by-exception, which are both viewed as a transactional type of leadership. According to Bass (1998), contingent reward involves a transaction where there is an exchange between the leader and subordinate. A task is assigned, and, in return for a satisfactory job, the subordinate receives psychological or material rewards ranging from praise and recognition to salaries and monetary benefits. While management-by-exception is also transactional to a degree, these leadership behaviors are more corrective in nature and are divided into active and passive categories. Active leaders are more proactive, monitoring mistakes, attending to failures and taking corrective action while passive leaders wait until problems arise before taking any action. The passive leader avoids taking action or becoming involved until the problem becomes chronic.

The last of the full-range leadership measures included in the MLQ is laissez-faire leadership, which is also characterized by avoidance behaviors. This leader is absent and delays in responding to work and subordinate needs. Subordinates are left to make decisions and take on responsibilities (Avolio & Bass, 2004; Bass, 2008). Table 16 lists

the characteristics of each leadership style as described by Bass (2008). Avolio and Bass (2004) designed the MLQ to measure the full range of leadership behaviors from the most effective (transformational) to the least effective (laissez-faire).

Null hypothesis 4a tested the correlation between emotional intelligence and contingent reward leadership behaviors. A significant positive relationship was evident, Pearson's $r(30) = .38, p < .05$, causing the null hypothesis to be rejected. While contingent reward leadership is transactional, Avolio and Bass (2004) have discussed the augmentation of transformational and transactional leadership. Bass (2008) asserts that contingent reward may be closely related to transformational leadership. This could explain the positive correlation that emotional intelligence has with both transformational and contingent reward behaviors in this study.

Null hypothesis 4b examined the relationship between emotional intelligence and active management-by-exception leadership, finding a positive but insignificant relationship, Pearson's $r(30) = .15, p > .05$. Null hypothesis 4c focused on the relationship regarding passive management-by-exception behaviors. Analysis of the data found that there was a positive but very weak and insignificant correlation, Pearson's $r = .02, p > .05$. Null hypothesis 4d considered the correlation between emotional intelligence and laissez-faire leadership, finding a negative and insignificant correlation, Pearson's $r = -.15, p > .05$. Table 16 depicts the continuum of leadership styles and the corresponding correlations with the MSCEIT. Based on the results of this study, it is evident that the leadership styles having transformational characteristics (transformational and contingent reward) correlated significantly with emotional intelligence, while those leadership

Table 16

Leadership Styles, Descriptors, and Correlations with EI

Leadership Styles H ₀	Descriptors	Correlations with MSCEIT	
(1) Transformational	Transforming others into	Pearson's r	*.37
	leaders; motivate followers;	Sig.	.045
	challenging expectations set	N	30
(4a) Contingent Reward	Constructive transaction;	Pearson's r	*.38
	positive feedback & rewards	Sig.	.037
		N	30
(4b) Management-by-Exception Active	Corrective transaction;	Pearson's r	.15
	monitors mistakes; proactive	Sig.	.416
		N	30
(4c) Management-by-Exception Passive	Corrective transaction;	Pearson's r	.02
	reactive; slow to take action;	Sig.	.925
	negative feedback & disciplinary action	N	30
(4d) Laissez-Faire	Non-leadership; inactive;	Pearson's r	-.15
	no clear goals	Sig.	.430
		N	30

*Correlation is significant at the .05

behaviors that are considered more corrective or non-existent have no significant relationship with emotional intelligence. Also worth noting is that while both

transformational and contingent reward had a significant relationship with the emotional intelligence level of the principals, contingent reward's correlation was slightly stronger. Summarizing the results of null hypothesis 4, all of the leadership styles except contingent reward were found to have insignificant relationships with emotional intelligence. With the results from this study and the prior research on contingent reward finding the construct more transformational than transactional (Bass, 2008; Goodwin, Wofford, & Whittington, 2001), the conclusion can be drawn that emotional intelligence has a stronger positive relationship with transformational leadership than other non-transformational leadership styles.

The fifth research question investigated the link that both emotional intelligence and transformational leadership have with effectiveness. This question was addressed by null hypotheses 5 and 6. Null hypothesis 5 tested the correlation between emotional intelligence and effectiveness using the combined MLQ teacher rater scores from the measures of extra effort, effectiveness, and satisfaction. The MSCEIT total score represented the emotional intelligence score in the correlational analysis. A positive significant relationship was established, Pearson's $r = .38, p < .05$, indicating that the principals who had a higher emotional intelligence score were perceived as being more effective by their teachers. In other words, principals who could better identify, use, understand, and manage their emotions were considered to be more effective by their teachers.

Null hypothesis 6 also sought to answer the fifth research question by testing the correlation between transformational leadership and effectiveness. The MLQ teacher ratings of principal effectiveness were correlated with the MLQ transformational

leadership scores. This correlation was found to be even more significant than that which was found in null hypothesis 5. This correlation indicates a very significant correlation, Pearson's $r = .90$, $p < .01$, between transformational leadership and effectiveness as perceived by teachers.

The nine effectiveness questions from the MLQ used in the research included four questions which addressed the effective ability of the principal as it related to the teacher's work, three questions related to encouraging teachers to apply extra effort, and two questions specifically questioned the satisfaction on the part of the teacher due to the principal's leadership. These questions admittedly only apply to effectiveness as it applies to the teacher's work from his/her perspective. Adding other effectiveness measures which are more quantifiable in terms of improvement and achievement, such as climate surveys, teacher efficacy measures, student engagement, and standardized tests scores, may lead to a deeper understanding of the effect emotional intelligence and transformational leadership have in school settings.

Limitations of the Study

The first limitation of the study which must be discussed involves the sample. This study used a relatively small sample size of 30 principals, and the selection of the principals was not random. Principals had to be willing to take the time to complete the MSCEIT and be willing to recommend teachers for their participation. The sample also was comprised of more elementary principals than middle and high school principals. The teacher sample was limited by having the principal choose the pool of teachers from which participants would be selected. While principals were encouraged to recommend

teachers with varying experiences and years of service, it was ultimately left up to the principal to decide who would rate him or her.

As noted in the previous section, the effectiveness measures were limited to those derived from the MLQ in the categories of extra effort, effectiveness, and satisfaction. These measures were based on teacher perception and did not include other effectiveness data such as student achievement, student and teacher attendance, teacher retention rates or overall school climate and culture information. More effectiveness data relating to actual performance or behaviors would be beneficial in explaining further the effects of both emotional intelligence skills and transformational leadership behaviors.

Implications and Recommendations

The results of this study do align with previous research indicating a link between transformational leadership and emotional intelligence (Daus & Ashkanasy, 2005; George, 2000). The effectiveness of the two constructs as they apply to leadership has also been shown to be positive, which is supported by prior research in the field (George, 2003; Koh et al., 1995; Leithwood & Jantzi 1999a, 1999b; Wong & Law, 2002). A strong command of one's emotions and the ability to recognize and aid in directing others in extreme emotional experiences appear to make the leader more effective (Dasborough, 2006). Since transformational leadership and emotional intelligence positively correlate and are also related to effectiveness, it can be proposed that improving transformational leadership and emotional intelligence skills could benefit principals as they seek to lead their staffs through the ups and downs of cultural change.

The present study combined with prior research in the field of leadership warrants several recommendations for principal preparation, practice and research. Principal

preparation programs should consider including a study of emotional intelligence and training on how specific strategies and skills can enhance the leader's abilities and skills in the day-to-day interactions with all stakeholders. Another consideration for principal leadership preparation programs should be the study of transformational leadership particularly as it pertains to cultural change. Current Educational Leadership Constituent Council (ELCC) Standards for Advanced Programs in Educational Leadership do not include transformational leadership or emotional intelligence skill building. The standards do include skills which could be taught through transformational leadership and emotional intelligence training. Specifically, Element 1 which addresses vision planning, development and implementation with examples of facilitating teamwork, supporting innovation and developing leadership in others, could be met through transformational leadership training. Likewise, Element 3 references the ability to involve staff in building consensus, communication, and resolving conflicts, all which could be improved through emotional intelligence skill building (National Policy Board for Educational Administration, 2002). ELCC will submit new standards to the National Policy Board for Educational Administration in the fall of 2010. The March 2010 draft of these new standards also does not specifically include transformational leadership or emotional intelligence (National Policy Board for Educational Administration, 2010).

School districts should also consider the incorporation of transformational leadership training and emotional intelligence skill building as an ongoing element of leadership professional development. The MLQ and MSCEIT could prove to be valuable measurement tools for use in leadership training programs for principals and aspiring

principals. Both instruments and subsequent interpretation and skill building could benefit the leader seeking to improve his/her leadership skills.

Additional research including other effectiveness measures such as school culture, climate, teacher efficacy, and student achievement is needed. It would be very beneficial to education leadership scholars and practitioners to learn more about the interaction between such measures and both emotional intelligence and transformational leadership.

How to work with school principals to improve their emotional intelligence skills as they seek to transform those around them into leaders is still a question that needs further study. Emotional intelligence is a relatively new theory, and few research studies have investigated the interaction between the principalship and emotional intelligence. The principalship is a highly stressful occupation where many factors out of the principal's control interact to produce highly charged emotional experiences (Bloom, 2004). Expanding research in the area of educational leadership in relation to both transformational leadership and emotional intelligence using large, random samples is warranted, particularly when controlling for other factors, such as the size of the school, school level, school demographics, and teacher and student statistics. Given the present school environment which is experiencing deep cultural change and educational reform, there is a need for empirical studies extending and broadening this research study to further inform and support the leadership in school settings.

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APPENDIXES

APPENDIX A

Coded Principals' MSCEIT Mean Scores

Principals	Combine Use/Manage	Total	P/N Bias
1	111.79	114.63	108.28
2	84.92	84.00	92.00
3	83.74	73.68	86.54
4	108.03	109.10	124.46
5	111.97	102.17	112.44
6	113.16	137.75	93.39
7	115.26	117.33	121.41
8	95.93	87.40	103.75
9	95.20	98.73	112.25
10	110.26	102.15	100.97
11	104.23	107.85	115.58
12	108.50	121.86	101.71
13	94.65	91.95	96.53
14	107.91	105.44	84.42
15	95.92	93.83	99.68
16	105.29	84.46	90.71
17	91.86	84.35	70.82
18	91.26	90.87	97.64
19	105.16	111.36	107.17
20	106.19	99.65	98.84
21	101.86	100.57	81.18
22	117.74	105.59	91.72
23	114.04	98.04	92.55
24	125.57	116.26	91.35
25	100.49	80.55	114.84
26	97.38	88.38	94.40
27	95.47	97.32	122.89
28	117.28	103.55	135.00
29	100.78	93.83	96.07
30	119.46	116.35	96.62

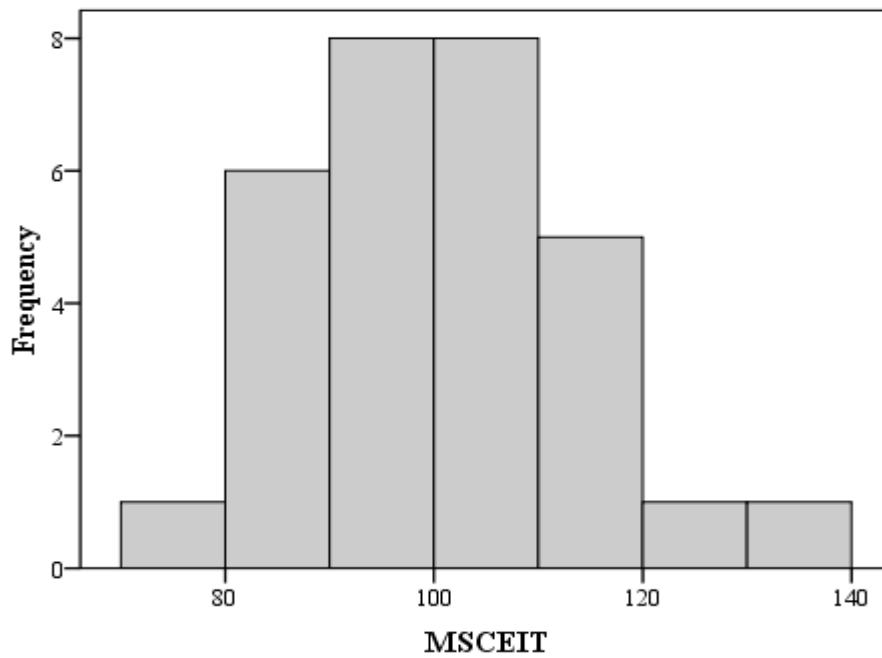
APPENDIX B

Coded Principals' MLQ mean scores

Principals	TL	CR	MbE-Passive	MbE-Active	LF	Effectiveness
1	2.34	2.68	1.60	1.55	1.13	2.53
2	2.74	2.85	1.38	1.97	0.55	3.16
3	2.10	2.30	0.65	1.00	0.63	2.43
4	2.96	3.21	1.32	1.71	0.50	3.49
5	3.51	3.52	0.83	1.37	0.50	3.62
6	3.14	3.25	1.19	2.03	0.62	3.42
7	2.73	2.75	1.64	1.64	0.61	2.84
8	2.56	3.14	1.33	1.10	0.42	2.97
9	2.30	2.33	0.80	2.33	0.05	2.82
10	3.17	3.20	0.45	1.90	0.15	3.31
11	2.78	3.00	1.45	1.95	0.85	3.02
12	3.21	3.55	0.96	1.14	0.39	3.71
13	2.75	3.00	0.55	2.27	0.25	3.20
14	3.01	3.25	0.92	2.65	0.42	3.55
15	3.09	3.45	0.55	2.40	0.25	3.62
16	3.09	3.40	0.95	0.55	0.48	3.36
17	2.46	2.65	1.05	1.85	0.60	2.31
18	2.44	2.50	1.27	1.06	0.90	2.97
19	2.85	3.00	0.85	1.80	1.32	3.11
20	2.56	2.75	1.00	1.45	0.45	3.31
21	3.34	3.05	0.55	1.00	0.20	3.78
22	3.68	3.58	0.38	1.64	0.04	3.83
23	3.56	3.60	0.00	1.07	0.80	3.89
24	2.41	2.55	1.00	1.40	1.00	2.83
25	1.91	2.20	1.97	1.82	1.82	2.15
26	2.23	2.67	1.25	1.50	1.40	2.67
27	2.67	2.80	1.70	1.82	0.45	2.63
28	3.49	3.55	1.10	1.52	0.65	3.64
29	2.77	2.85	1.04	2.06	1.32	3.27
30	2.61	3.50	0.80	1.53	0.00	3.40

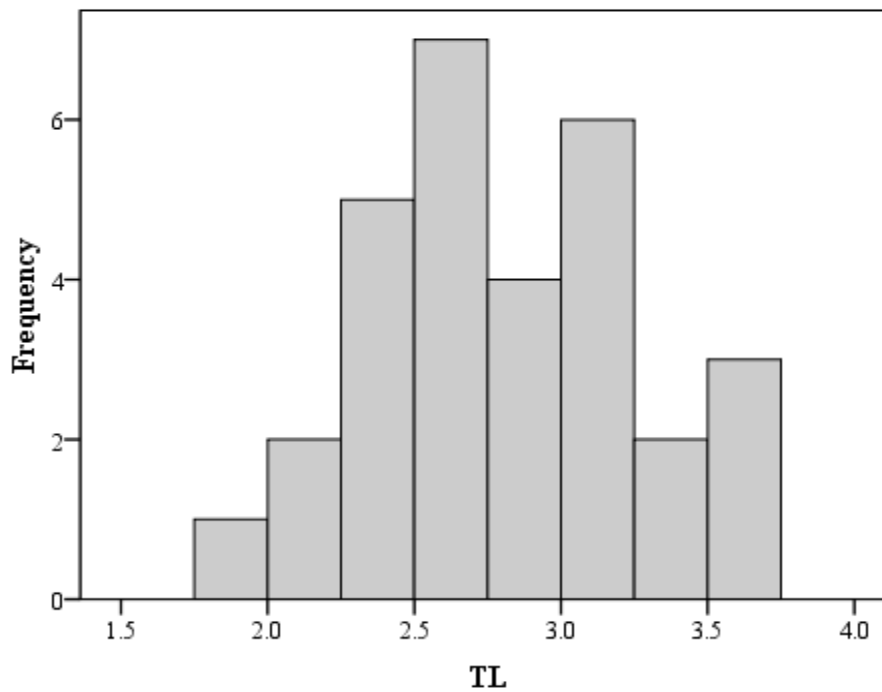
APPENDIX C

MSCEIT Distribution of Scores



Mean = 100.63; Std. Dev. = 13.944; N = 30;

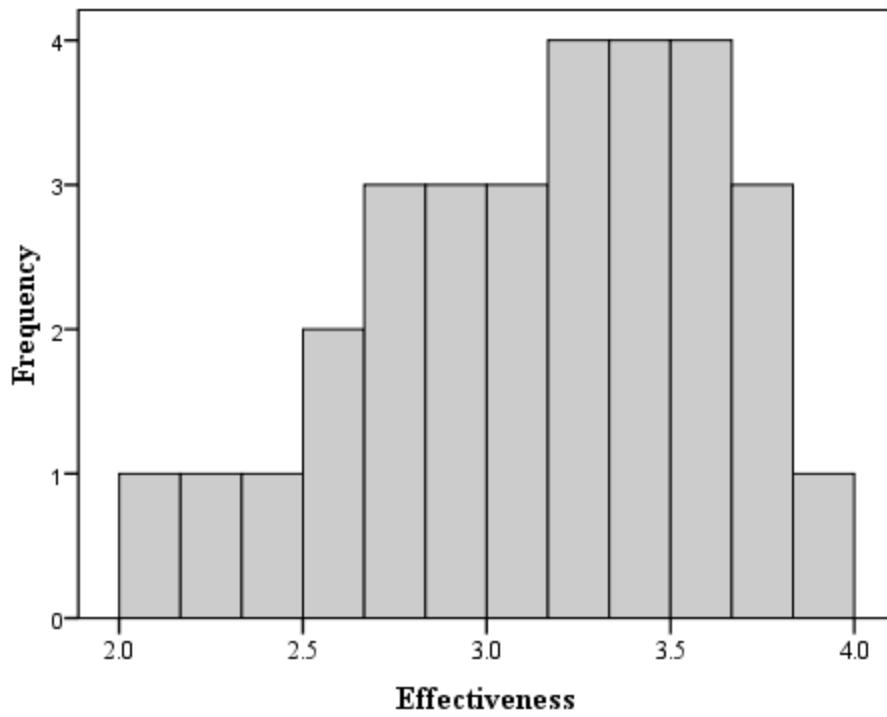
TL Distribution of Scores



Mean = 2.816; Std. Dev. = 4.497; N = 30;

APPENDIX D

Effectiveness Distribution of Scores



Mean = 3.16; Std. Dev. = 0.472; N = 30