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An Exploration of Emotional Intelligence Scores Among Students
In Educational Administration Endorsement Programs

A dissertation
presented to
the faculty of the Department of Educational Administration
and Policy Analysis
East Tennessee State University

In partial fulfillment
of the requirements for the degree
Doctor in Education

by
Holly Solomon Click
May 2002

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Dr. Cecil Blankenship

Keywords: Emotional Intelligence, Educational Administration Endorsement Program

ABSTRACT

An Exploration of Emotional Intelligence Scores Among Students

In Educational Administration Endorsement Programs

by

Holly Solomon Click

The purpose of this study was to explore the emotional intelligence scores of students in educational administration endorsement programs. The relationship between the length of time in an educational endorsement program and emotional intelligence scores was examined. Relationships with other factors were also examined. The respondents were students in educational administration endorsement at three east Tennessee universities. A total of 85 students participated in the study. Basic frequency based analyses were calculated to identify any relationships between variables.

A literature review gave an explanation of emotional intelligence and examined the historical development of emotional intelligence. The existing literature concerning the evolvement of emotion as an intelligence and its connection to leadership was also reviewed.

The study's investigation of the relationship between students' emotional intelligence scores and their amount of time in an administration endorsement program could assist instructors in designing programs to address weaknesses evident at a certain level. Specifically, universities with administrative endorsement programs could measure their students' initial levels of emotional intelligence at the beginning of their studies, seek to address areas identified as low in relation to others, and measure again at the conclusion of the program. This would enable them to gauge the extent to which the students' emotional intelligence had been enhanced.

Although there were no statistically significant findings, the following observations were made. The study found that the students who had been enrolled the longest in an administrative endorsement program had the majority of their scores in the "low" category of the emotional intelligence aggregate and several cluster scores. Older students had a greater percentage of scores in the medium and high categories for social skills and aggregate emotional intelligence when compared with younger students. A greater percentage of males scored in the "low" category for aggregate emotional intelligence than females. Finally, students with 1 or more years of administrative experience had a greater number of their scores in the "medium" category of self-awareness, while students with no years of administrative experience had a majority of scores in the "low" category.

DEDICATION

This book would not have been possible without the support of the best family in the world.
I dedicate this book to those I love, especially to my parents.
Brian and Jenna, you are the rays of sunshine in my life.
Thank you all for your encouragement, humor, and most of all your confidence in me.

All of the credit for the completion of this project goes to Jesus Christ my Savior.

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CHAPTER 1

INTRODUCTION

As the benefits of possessing a high emotional intelligence become more apparent, universities that train potential educational administrators may decide to include activities designed to enhance students' emotional intelligence in their programs. The focus of this study was to explore the emotional intelligence scores among students in educational administration endorsement programs at three universities in east Tennessee. To accomplish this, I sought to determine the strength of the relationship that existed between the emotional intelligence level of students in educational administration endorsement programs and their various stages of program completion as measured by the *Emotional Competence Inventory* (ECI) (Boyatzis, Goleman, & Rhee, 1999). Other relationships concerning the students' emotional intelligence levels were also examined.

This chapter provides an introduction to the study of emotional intelligence. The general purpose and questions to be explored will be provided. The linkages between emotional intelligence and leadership will be discussed in the overview and significance of the study sections. The definitions of emotional intelligence and students at various stages of completion in educational administration endorsement programs are noted. The chapter concludes with a brief background of emotional intelligence.

Research Questions

The following questions were explored:

- 1) Is there a relationship between the scores on the ECI measurement of emotional intelligence among students in an educational administrative endorsement program and their various stages of program completion?
- 2) Are there variables (sex, age, administrative experience, undergraduate major, undergraduate GPA, college attended) that show a relationship with the emotional intelligence scores?

Significance of the Study

Researchers have described the benefits of possessing a high emotional intelligence. Such individuals are found to be healthier and more successful than their less emotionally intelligent peers (Cooper, 1997). Many characteristics owned by emotionally intelligent people coincide with the characteristics desired in leaders.

Emotionally intelligent individuals are found to have strong personal relationships (Cooper), monitor and evaluate others' feelings (Salovey & Mayer, 1990), empathize with others (Kelley & Caplan, 1993), and excel in interpersonal skills (Goleman, 1998a). Bass (1990) outlines many of these same qualities as characteristic of effective leaders.

Based on the similarities exhibited between effective leaders and individuals possessing a high degree of emotional intelligence, it follows that programs responsible for training students for leadership roles might take measures to increase their students' levels of emotional intelligence. Specifically, universities with administrative endorsement programs could measure their students' initial levels of emotional intelligence at the beginning of their studies, seek to address areas identified as low in relation to others, and measure again at the conclusion of the program. This would enable them to gauge the extent to which the students' emotional intelligence had been enhanced.

Limitations of the Study

Certain limitations of the study must be considered. They are listed below:

- 1) The sample used was confined to east Tennessee.
- 2) The sampling method used was a convenience sample; therefore, the generalizability is hindered.
- 3) The sample size was small (limited to institutions in east Tennessee that offered educational administration certification programs).
- 4) The ECI was used as an indicator only, as all of the information required for the original use was not gathered. Permission was granted from the developers to use the ECI in a manner consistent with how it was used in this study.
- 5) Although this study will not analyze information on the ECI pertaining to competencies, the competencies are be reflected in the results of the cluster groups.
- 6) The data collected from the ECI were self-reported and, therefore, subject to the limitations of that process.
- 7) The reliability of the ECI as published should not be inferred as applying to this study as data used in this study were gathered solely from the subjects with no peer-rating.

Definitions of Terms

For the purpose of this research, the following definitions apply.

- 1) Emotional intelligence is the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thoughts; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote educational and intellectual growth (Mayer & Salovey, 1997, p. 10).
- 2) Students at various stages of completion in an administrative endorsement certification program refers to the number of semesters students have been enrolled in an institutionally designed program developed to fulfill the requirements of beginning administrator certification in the state of Tennessee.

Overview of the Study

Few movements have intrigued mainstream society to the extent of the study of emotional intelligence (Salovey, 1998). Written in 1995, Goleman's book, *Emotional Intelligence*, has been translated into 30 languages and has become a best seller around the world (Salovey). The term "emotional intelligence" was first coined by Salovey and Mayer (1990) to explain a different type of intelligence. Many have noted the distinction between academic intelligence and social intelligence (Neisser, 1976). While the standard intelligence quotient (IQ), tends to be static, emotional intelligence can be learned (Salovey).

Specifically, emotional intelligence is the ability to perceive accurately, appraise, and express emotion; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth (Mayer & Salovey, 1997). In an earlier conception, Gardner (1983) described what is now recognized as emotional intelligence as being a deep awareness of one's own emotions and the ability to label and draw upon those emotions as a resource to guide behavior.

Salovey and Mayer (1990) categorized emotional intelligence in five domains. Their domains include self-awareness, managing emotions, motivating oneself, empathy, and handling relationships. Goleman (1995) later developed his four dimensions of emotional intelligence to include knowing and managing one's emotions, self-motivation, empathy toward others, and social deftness.

The benefits of emotional intelligence are many and varied. A group of four-year old children - found to resist impulse - were tracked through high school and were found to be more self-assertive, socially skilled, independent, and persevering than their more impulsive peers. In addition, they achieved significantly higher SAT scores (Shoda, Mischel, & Peake, 1990). Harrington-Lueke (1997) found in her research that being emotionally intelligent is just as important to success in life as good grades. Essentially, people with high levels of emotional intelligence experience more career success, build stronger personal relationships, lead more effectively, and enjoy better health than those with low levels of emotional intelligence (Cooper, 1997).

The quest to identify effective leaders and the qualities they embody has drawn the attention of researchers for decades. Many of the qualities possessed by individuals with high levels of emotional intelligence seem to parallel those qualities characteristic of effective leaders (Goleman, 1998b). In fact, Goleman's research has shown emotional intelligence to be the single most important factor in effective leadership. In a meta-analysis of the traits of leadership, which lists the most prevalent traits of leadership based on studies between 1945 and 1970, Bass (1990) found many components of emotional intelligence. The most common factors included social and interpersonal skills, technical skills, administrative skills, leadership effectiveness and achievement, social nearness, friendliness, support of the group task, and task motivation and application. He also found that the best leaders were proficient in both task-oriented and interpersonal skills (Bass).

Researchers have underscored the importance of leaders' being able to manage groups effectively. One component of emotional intelligence involves the ability to monitor and evaluate others' feelings and use that knowledge to guide actions (Salovey & Mayer, 1990). Harmony within group relationships is a manifestation of emotional intelligence (Goleman, 1995). Groups experiencing harmony, and ultimately synergy, may have similar technical skills as their peers, but have more social skills (Goleman). Kelley and Caplan (1993) observed that optimum performing groups had members who stressed consensus, empathized with others, promoted cooperation, and avoided conflicts.

Finally, emotionally intelligent leaders appear to excel in one-on-one interpersonal skills. Abraham (1999) stated that emotionally intelligent managers place themselves in the position of the employee, understand the stress the employee is undergoing, experience those feelings themselves, and modify their communication accordingly. An emotionally intelligent leader is also able to deliver criticism and provide valuable information to employees proactively before problems escalate out of control. According to Abraham, the ideal situation includes both an

emotionally intelligent employee and employer. A deeper understanding of each would then be expected thereby increasing the correspondence between their performance evaluations. He noted that in an optimum situation, both the employee and employer would have high levels of emotional intelligence (Abraham).

Chapter 1 included an introduction to the study, the research questions, and the significance of the study. Chapter 2 includes a review of the literature related to emotional intelligence and leadership. The methodology of the study is presented in Chapter 3. Results of the research are described in Chapter 4, and the Conclusions and Recommendations based upon the results are included in Chapter 5.

CHAPTER 2

LITERATURE REVIEW

As indicated in chapter 1, individuals who possess high levels of emotional intelligence exhibit characteristics of effective leaders. In this chapter I will review the existing literature on emotional intelligence and its connection to effective leadership skills and abilities. The chapter begins with the history and exploration of emotional intelligence. The criteria for establishing emotional intelligence as an entity are described, and the relationship of emotional intelligence to leadership is examined. I will also investigate emotional intelligence and the variables of sex, age, and administrative experience. The review of the literature maps the evolution of emotion as an intelligence, the relationship between emotional intelligence and leadership, and efforts made to introduce emotional intelligence into the realm of empirical research.

History of Emotional Intelligence

When reviewing the literature, the work of particular researchers often appears. Some of the most recognized authors and a discussion of their works follow. Edward Thorndike is credited with the initial study of emotional intelligence (Goleman, 1995). The term had not yet been coined, but Thorndike (1920) researched dimensions of emotional intelligence as a form of “social intelligence”. Howard Gardner (1983) continued to expand the knowledge of interpersonal and intrapersonal skills in the mid-1980s. Salovey and Mayer (1990) are given credit for introducing the term “emotional intelligence” in the early 1990s. Finally, Daniel Goleman (1995) published two very successful books in which he described emotional intelligence and how emotional intelligence is used in the workplace.

Over time, researchers have attempted to unite emotion with intelligence (Goleman, 1995). Thorndike, according to Goleman, was one of the first theorists to attempt to define the aspect of social intelligence that we now know as emotional intelligence. Social intelligence can be explained as the ability to understand others and act appropriately in human relations (Goleman). Marlowe (1986) defined social intelligence as the ability to understand other people and social interactions and to use this knowledge to lead and guide others to mutually satisfying outcomes. Researchers agreed that social intelligence is important for academic and career achievement (Lord, De Vader, & Alliger, 1986; Wentzel, 1991). Walker and Foley (1973) identified two elements of social intelligence.

Cognitive skill in drawing accurate conclusions from social interactions and the effectiveness of social behavior based on such observations express the foundation of social intelligence (Walker & Foley, 1973). Thorndike (1920) initially investigated social intelligence as one component of intelligence measured by the IQ score. He ultimately distinguished social intelligence from other forms of intelligence and defined it as the capability to understand people and to act wisely in human relations (Thorndike). Later, Sternberg (1985) concurred with Thorndike's findings stating that social intelligence is not only distinct from academic abilities but is also an integral part of what makes people do well in the practicalities of life. He noted that conventional IQ tests assess only the analytical aspect of intelligence (Sternberg, 1996). Goleman credited Sternberg for attempting to widen the sphere of intelligence and reinvent it in terms of what it takes to lead a successful life.

Gardner (1983) argued in his theory on multiple intelligences that traditional IQ tests measure linguistic, logical-mathematical, and sometimes spatial intelligences. He described the differences between and among people in seven different forms of intelligence (Gardner). Linguistic intelligence describes the ability to understand words and how they are combined to form language. Logical-mathematical intelligence is the dimension that speaks to the ability to see patterns, order, and logical chains of reasoning. The musical intelligence refers to individuals able to discern pitch, melody, tone, rhythm, and other qualities of musical symbolism. The ability to accurately perceive and think in terms of the visual qualities of the world and its dimensions is known as the spatial intelligence (Gardner & Hatch, 1989). The bodily-kinesthetic dimension describes the ability to control one's bodily motions and the capacity to handle objects skillfully. Intrapersonal intelligence concerns the ability to access and understand the components of one's own inner self including feelings, reactions, and aspirations. The last of Gardner's types of intelligence parallels the aforementioned definition of social intelligence more closely than any of the other six intelligences. Interpersonal intelligence enables an individual to notice and make distinctions among other individuals including the ability to interpret their moods, temperaments, motivations, and intentions. Gardner emphasized that as people mature physiologically, their intelligences can also be expected to mature. Finally, he underscored the importance of the interaction between the person and the culture in the individual's environment in shaping human behavior.

Salovey and Mayer (1990) co-formulated the phrase "emotional intelligence". They defined emotional intelligence initially as the ability to monitor one's own and other's feelings and emotions, to discriminate among them, and to use that information to guide one's thinking and actions (Salovey & Mayer). The ability skills

component of emotional intelligence coincides with the definitions of other types of intelligences, specifically, social intelligence (Guilford, 1967; Hunt, 1928; Salovey & Mayer; Sternberg & Smith, 1985). Salovey and Mayer considered emotional intelligence as a subset of social intelligence in its capacity to monitor and evaluate others' feelings and emotions and to use that knowledge to guide actions. They found that there exists a set of conceptually related mental processes involving emotional information (Salovey & Mayer). The processes include appraising and expressing emotions in the self and others, regulating emotions in self and others, and using emotion in adaptive ways (Salovey & Mayer). Mayer and Salovey (1993) augmented the explanation of emotional intelligence and broke it into four components. The components include the perception, appraisal, and expression of emotion; emotional support for thinking; understanding and analyzing emotions and applying emotional knowledge; and reflective regulation of emotions to promote emotional and intellectual growth (Mayer & Salovey).

Mayer and Salovey (1993) reported that it was the manner in which they defined emotional intelligence -- "as involving a series of mental abilities -- [that] qualifies it as a form of intelligence" (p. 435). They also argued that, because emotional intelligence requires processing emotions, it "may have better discriminant validity from general intelligence than social intelligence" (Mayer & Salovey, pg. 435). In other words, emotional intelligence may be a more valid measure as a specific type of intelligence than social intelligence (Mayer & Salovey).

Executive EQ, the popular book by Cooper and Sawaf (1997), outlined a model of emotional intelligence that related specific skills and tendencies to four cornerstones. Emotional literacy is the knowledge of one's own emotions and how they function. Emotional fitness includes emotional hardiness and flexibility. Emotional depth is described as emotional intensity and potential for growth. Finally, emotional alchemy, is described as the ability to use emotion to spark creativity (Cooper & Sawaf).

Again, although Salovey and Mayer (1990) created the term "emotional intelligence", it entered national consciousness with Daniel Goleman's (1995) book, *Emotional Intelligence*. The book became a national best seller with more than four million copies sold worldwide (Miller, 1997). It also made popular the notion of viewing the experience and expression of emotions as a domain of intelligence (Schutte et al., 1997). Goleman offered his book as a "guide to making sense of the senselessness" that seems to have recently overtaken our world: random violence, school shootings - events Goleman termed "emotional malaise" (Salopek, 1998, pg. 26). Goleman popularized the idea of being "emotionally intelligent" with the notion that success in life does not depend solely on a high IQ score.

Goleman (1995) outlined several dimensions of emotional intelligence. The dimensions included knowing and managing one's emotions, self-motivation, empathy toward others, and social deftness. Knowing and managing one's emotions involves being observant of oneself and the emotions one is feeling as well as handling the feelings appropriately. Goleman described self-motivation as the channeling of emotions in the service of a goal, delaying gratification, and stifling impulses. Empathy speaks to the appreciation of the differences in people and the sensitivity to others' feelings and concerns. It is the ability to comprehend another's feelings and to re-experience them one's self (Salovey & Mayer, 1990). Rogers (1951) considered an act of striving to understand other people and to empathize with them a priceless gift as well as a prerequisite for helping another grow. Goleman portrayed social deftness as the ability to manage emotions in others. His first book has had a significant impact on a variety of institutions including business, school, family, and society (Chollar, 1996; Confrey, 1995; Farham, 1996; Gibbs, Park & Birnbaum, 1995; Koonce, 1996; Murray, 1996; Nelton, 1996; Shapiro, 1997; Stufft, 1996).

In Goleman's (1998c) second book concerning emotional intelligence, *Working with Emotional Intelligence*, he translated his earlier findings into a formula for success at work (Salopek, 1998). He wrote his latest book while on an odyssey of talking to people in organizations of all kinds about how emotional intelligence mattered for what they were doing (Salopek). Goleman reported in an interview with Salopek that his purpose for the second book was to explore systematically what the empirical data suggested was the importance of the skills individuals needed to be successful at work. Goleman (1998b) grouped capabilities into three categories: purely technical skills, cognitive abilities, and competencies demonstrating emotional intelligence. In the interview with Salopek, Goleman continued to describe the competencies he found to be most vital to success in the workplace. By competencies, Goleman referred to emotional intelligence-based competencies (Salopek). This is a set of human capabilities that are based more on the working of a different part of the brain than pure cognitive ability or technical skill. The competencies include self-confidence, empathy, the need to get results, constant improvement, influence, and teamwork (Salopek). Goleman stated in the interview that "these are the abilities that every organization needs to develop in people" (Salopek, p.27). Goleman reiterated that emotional intelligence-based competencies are learned abilities and are not static (Salopek). Goleman concluded that emotional competencies are most important at the highest levels of responsibility in a firm.

Emotions and Intelligence

Goleman (1995) found that academic intelligence has little to do with emotional life. People with high IQ scores can be poor managers of their social lives and prone to unbridled passions and impulses. Goleman noted that IQ contributes approximately 20% to the factors that determine life successes. He contended that emotional intelligence abilities - motivating oneself, persisting when faced with frustration, controlling impulse, delaying gratification, regulating one's moods, and empathizing with others - may explain a portion of the factors comprising the other 80% of life successes (Goleman). Goleman (1998b) found that in a study of an organization's most outstanding leaders, emotional intelligence proved to be twice as important as technical skills and IQ.

So, what is the relationship between emotion and intelligence? Goleman (1995) asserted that the constructs of "emotion" and "intelligence" act in harmony with one another and are not incongruous at all. Emotions are often presented as disorganized interruptions of mental activity (Salovey & Mayer, 1990). Instead of interfering with rational thought, Mandler (1984) suggested that intense emotional situations actually stimulate intelligence by helping individuals prioritize thought processes. Emotions have been thought to link logical thought processes rather than disrupting them (Mayer & Salovey, 1993).

"Emotion and intellect combine to form emotional intelligence" (King, 1999, pg. 17). One's moods will not make one smarter, but they may affect one's thinking (King). One will be more intelligent, however, when one correctly understands one's own emotions, accurately interprets the emotions of others, or uses this information to enhance one's thinking (King).

Emotional Intelligence Criteria

For emotional intelligence to qualify as an intelligence, it must meet three established criteria: (a) conceptual, (b) correlational, and (c) developmental (Mayer, Caruso, & Salovey, as cited in King, 1999).

The abilities that define emotional intelligence comprise the conceptual criterion (King, 1999). The abilities distinguish performance from personality traits and talents (Mayer & Salovey, 1993, 1997; Scar, 1989, as cited in Mayer & Salovey, 1993). According to King (1999), Mayer and Salovey combined the research on emotions to create a framework for emotional intelligence. The mental processes were illustrated as abilities and were divided into four classes known as the Four Branch Model. The model is comprised of four branches that range from basic psychological processes to higher integrated processes (Mayer & Salovey, 1997). Perceiving Emotions is the lowest

level and deals with the perceptions of emotions within one's self and others. It is at that level that an individual begins to understand how others might feel in a particular circumstance and appreciate different points of view. At the second level, Assimilating Emotions, one begins to understand how others might feel in a particular circumstance and see different points of view. The third level, Understanding Emotions, involves the understanding and labeling of emotions. It is at this level that individuals recognize the variations of each emotion. The highest level, Managing Emotions, concerns the ability to recognize and appreciate both pleasant and unpleasant feelings in self and others. Judging emotion truthfully for what it is and using the information to grow intellectually expresses the essence of this level.

The second criterion that enables emotional intelligence to qualify as an intelligence is that it must be correlational (Mayer & Salovey as cited by King, 1999). Correlational means that it should be correlated with other intelligences (Mayer & Salovey, 1993). In their first study, Mayer and Salovey predicted scores for emotional intelligence that would distinguish it from other intelligences. The results indicated that the test is reliable regardless of the scoring method. The tests proved to be positively correlated with one another.

The third criterion is that the construct of intelligence should be developmental (King, 1999). The second study by Mayer and Salovey (1997) showed that emotional intelligence met the developmental criterion with growth from adolescence to early adulthood. As predicted in the study, the adults did score higher than the adolescents (King).

Based on the results of the two studies, emotional intelligence may qualify as a type of intelligence. The results showed that (a) emotional intelligence is a set of abilities (conceptual); (b) emotional intelligence correlates with other intelligences (correlational); and (c) it shows growth from adolescence to early adulthood (developmental).

Emotional Intelligence and Leadership

When reviewing studies in an attempt to investigate a "trait theory" of leadership, Bird (1940) noted that one characteristic that appeared repeatedly in studies of leaders was intelligence. The leaders were found to be, on the whole, more intelligent than their followers. Bird warns, however, that intelligence is only a contributing factor to leadership, and without assistance from other traits, it does not solely account for successful leadership. Similarly, Bass (1960) found that leaders usually have higher intelligence scores than followers, but not significantly higher.

Might a high emotional intelligence be a more accurate descriptor of a successful leader than the standard intelligence quotient?

When attempting to clarify and define leadership, there appears to be a quality in the emotional realm that distinguishes effective leaders from ineffective leaders (Hoyle & Oats, 1998). The concept of emotional intelligence may offer some insights into effective educational leadership (King, 1999).

Salovey and Mayer's (1990) initial definition of emotional intelligence described it as an intelligence that involves the ability to understand and assess one's own and other's emotions as well as use that information to regulate one's thoughts and actions. This definition inherently relates to the interpersonal and intrapersonal intelligences discussed by Gardner (1983).

What is the importance of interpersonal skills to a leader? Bass (1990) reported that in several studies, he found interpersonal skills to be important in leadership. He defined interpersonal competence as "involving empathy, insight, heightened awareness, and the ability to give and receive feedback" (Bass, p. 10).

Interpersonal skills endow a person with the ability to identify and accurately report one's feelings, or to empathize with the feelings of another in order to achieve cooperation rather than isolation (King, 1999). Additionally, interpersonal skills involve the ability to act with generosity and understanding toward others (King).

Goleman (1998) reported that companies waste vast sums of money each year on worker education and training programs that are ineffective because they omit vital interpersonal skills. Salopek (1998) found that a July 1998 survey of human resource directors at Fortune 1000 companies identified interpersonal skills as vital to an organization's success. Emotional competencies, Goleman stated, can be learned by any worker at any career stage.

One of the behaviors that Callahan (1990) mentioned on his checklist of eight effective principal behaviors was high interpersonal skills. Cherniss (1998) noted that educational leaders, like airline pilots, have always needed people skills, but today they need them more than ever. In addition, King (1999) found that the very concept of leadership implies a working relationship with other people who follow and are influenced by the leader.

The ability to communicate effectively is often mentioned by researchers as an integral link to interpersonal skills and thus effective leadership (Kanter, 1983). Most of the literature on school leadership supports the importance of good communication as necessary to effective leadership (Lashway, Mazzarella, & Grundy, 1997). Covey (1990) purported that understanding others is fundamental to interpersonal relations. Rost (1991) stated that one of the attributes of great leaders is honest communication. This includes the ability to intelligently deliver

criticism so that valuable information may be shared with the employees to enhance their performance (Abraham, 1999).

Wright and Taylor (1994) looked at what constitutes effective communication. They stated that reading the members of the group, comprehending issues, and suiting a message to an audience are essential to good communication. In an interview with Goleman, Salopek (1998) explained communication - the sending of clear and convincing messages - as a vital part of interpersonal skills. McDowelle and Bell (1998) found that interpersonal skills and communication are strong components of emotional intelligence and leadership.

Empathy comprises a second piece of effective interpersonal skills and may be the most easily recognized (Goleman, 1998b). Empathy enables one to consider others' feelings (Goleman, 1998a). It is the ability to be aware of others' feelings, needs, and concerns (Salopek, 1998).

In the case of leadership, empathy permits emotionally intelligent managers to place themselves in the position of the employee, understand the distress he or she is undergoing, experience those feelings themselves, and modify their communication appropriately (Abraham, 1999). Empathy enables the leader to be attuned to what is being said, measure its impact on the recipient, and prevent hurtfulness and humiliation (Levinson, 1992). In an interview with Goleman, Salopek (1998) revealed that empathy is one of the most important parts of a manager's tool kit. Goleman (1998a) found that trainers who are warm, genuine, and empathic are best able to engage learners in the change process. Greenleaf (1977) contended that follower trust is established if the leader displays empathy, understanding, and acceptance of the followers.

In terms of the follower, an empathic employee will be able to view weaknesses in his/her performance from the organization's perspective, perceiving them as detrimental to organizational success (Abraham, 1999). Finally, Daniel (1998) advocated that great leadership involves huge social intelligence, including a well-developed sense of empathy.

A third component of interpersonal skills involves the ability to work and function within a team (McDowelle & Bell, 1997). Interpersonal expertise of a leader has been offered as an integral part in empowering others and building strong relationships (Kouzes & Posner, 1987). Teaming refers to the ability to create group synergy in the pursuit of collective goals (Salopek, 1998). Kelley and Caplan (1993) observed that optimum performing groups had members who built consensus, empathized with other members, promoted cooperation, and avoided conflicts. Daniel (1998) noted that the majority of the abilities necessary for success in over 121 companies

worldwide involved teaming attributes such as trustworthiness, adaptability, and a talent for collaboration. Nelton (1996) reported that managers are learning that the necessity for teaming in the modern day work world requires greater EQ skills. William and Sternberg (1988) noted that dysfunctional interaction among the group lessened the group's ability to solve problems and act creatively.

For the leader, the ability to forge working relationships with many people and function as mediator, negotiator, and networker is vital to success (Cherniss, 1998). A team's leader must be able to sense and understand the viewpoints of everyone involved. With a teaming spirit, people can be motivated to agree on a new marketing strategy or generate enthusiasm about a new product (Goleman, 1998b).

While the term interpersonal skills describes interactions among people, intrapersonal skills refers to the feelings and actions within an individual (Gardner, 1985). McGarvey (1997) reported that emotional control is a key skill for successful leaders. Kelly and Moon (1998) defined intrapersonal abilities as personal talents that enable one to take constructive action with respect to both people and tasks. Such abilities help an individual develop self-awareness, capitalize on personal strengths, minimize personal weaknesses, make effective life decisions, and set and achieve goals (Kelly & Moon). Bocchino (1999) described intrapersonal intelligence as the sense of self-awareness that enables us to assume the third person, to observe ourselves, our emotions, our behaviors, and to be conscious of the insights we receive as a result of that observation.

An insightful leader exhibits intrapersonal aspects of emotional intelligence (Goleman, 1998a). Among them are included self-awareness, self-regulation, and the motivation to succeed. Goleman proffered that the higher one goes up the leadership ladder, the more important these emotional intelligence competencies become.

Personal initiative was one of the three most desired capabilities reported by employers of MBA's (Daniel, 1998). Salopek (1998) defined motivation as emotional tendencies that guide or facilitate the reaching of goals. Goleman (1998b) reported that virtually all effective leaders have motivation. He also noted that people with high motivation remain optimistic even when the score is against them.

Self-awareness is the part of intrapersonal skills that speaks to one's understanding of one's own emotions (Goleman, 1998b). Individuals who experience honest self-awareness also recognize their strengths, weaknesses, needs, and drives. Additionally, these people know how their feelings affect themselves, other people, and their job performance.

People who experience a high degree of self-regulation reflect a propensity for thoughtfulness, integrity, comfort with ambiguity, and an ability to say no to impulsive urges (Goleman, 1998b). Goleman (1998c) advocates self-regulation as an important attribute of leaders.

Finally, self-awareness and self-regulation help enable an individual to experience positive affect within themselves and others, and so contribute to well-being. Thus, "the emotionally intelligent person is often a pleasure to be around and leaves others feeling better" (Salovey & Mayer, 1990, p. 201).

Variables

What role do variables such as age, sex, and administrative experience play in the development of emotional intelligence?

The developmental nature of emotional intelligence might have some bearing in this study when one considers the age of the participants. Salopek (1998) noted in an interview with Goleman that emotional intelligence abilities are learned and tend to improve as one ages and matures. Mayer et al. (as cited in King, 1999), found that emotional intelligence abilities increased from adolescence to early adulthood.

Studies have revealed that gender differences exist in the measurement of emotional intelligence (Mayer et al., as cited in King, 1999, Mayer & Geher, 1996). In research conducted by Mayer et al. (as cited in King), women scored slightly higher than men in 12 out of 12 tasks designed to distinguish emotional intelligence from other intelligences.

Owens (1995) reported in his book *Organizational Behavior in Education*, that women have different values, goals, and priorities than men and often view things very differently. Owens described the educational workplace as consisting of a male culture and a female culture. He warned that a leader who failed to distinguish between the cultures while predicting organizational behavior was destined to fail.

Shakeshaft (1989) discussed five characteristics of the female world in educational organizations. They are mentioned in contrast to the male world that she perceives to exist in schools. Shakeshaft found that women spend more time with people, exhibit a greater knowledge of teaching methods, exhibit a more participatory and democratic style, are always on display, and are more likely than men to behave in public as they do in private.

The final variable that might impact this study concerns administrative experience. Lashway et al. (1997, p. 24) revealed that in inquiries of principals and superintendents, the overwhelming answer when asked where they

learned to do their jobs was "on the job". They implied you can only become proficient by performing the duties of an administrator. Blumberg (as cited in Lashway et al.) offered that school administration is a craft, learned inductively in hundreds of little episodes. Farnham (1996) revealed that intuitive decision-making requires the recognition of patterns in information accumulated through years of experience.

Studies show that administrative experience benefits the effectiveness of a leader. Some also stated that one's emotional intelligence increases with leadership experience. Most importantly, emotional intelligence can be learned. Leaders can be taught to instill emotional intelligence, as improving emotional intelligence requires learning that is different from that required in cognitive and technical training. Linking experience to aging, people who have been with a company longer tend to exhibit more emotional intelligence qualities than those just entering the work force (Salopek, 1998).

There are also other components of emotional intelligence that may be significant to the leadership experience (King, 1999). Working with others in teaming as well as using motivation effectively can impact the workplace ((McDowelle & Bell, 1997; Salopek, 1989).

Summary

Emotional intelligence is an individual's ability to relate with people and understand their emotions as well as one's own (McGarvey, 1997). Those who are more accurate in appraising and expressing emotions can more quickly perceive and respond to their own emotions and better express those emotions to others. These skills can be considered to demonstrate emotional intelligence because they require the processing of emotional information from within, and because it is clear that some level of minimal competence at these skills is necessary for social functioning (Salovey & Mayer, 1990).

The basic concept behind emotional intelligence is that success and happiness depend on more than the standard intelligence quotient (IQ) (Cherniss, 1998). Research shows that people with high levels of emotional intelligence have greater career success, foster stronger personal relations, have more effective leadership skills, and are healthier than those with low emotional intelligence (Cooper, 1997).

Goleman (1998b) contended that the most effective leaders are alike in that they all have a high degree of emotional intelligence. He also stated that emotional intelligence is a more important factor for employees than technological skills (Daniel, 1998).

Emotional intelligence is an area that will undoubtedly continue to be explored. The components of emotional intelligence are likely to be core requirements for success in politics, leadership, religion, teaching, and counseling (Kelly & Moon, 1998). Emotional intelligence is a distinguishing factor in educational leaders, and this knowledge could have an impact on the preparation of future business and educational leaders (King, 1999). "The ability to assess one's own and others' emotions in making wise decisions and taking appropriate action is essential in being a competent educational leader" (King, p. 4). The assessment of the level of emotional intelligence of aspiring leaders, therefore, could be of assistance in planning for curriculum and professional development. "By placing greater emphasis on understanding the relationship between emotions and successful educational leadership, scholars may be able to improve the preparation curriculum" (King, p. 5).

CHAPTER 3

METHODOLOGY

Chapter 1 presented an introduction to the topic of emotional intelligence, the purpose of the study, and a brief description of how emotional intelligence relates to leaders. Chapter 2 contained a review of the literature concerning emotional intelligence - especially as it has been shown to enhance leadership. This chapter includes an analysis of the research design, a description of the population and sample, an explanation of the data collection, a description of the instrumentation, an explanation of the data analysis, and a summary.

Research Design

The purpose of this study was to explore the emotional intelligence levels among students participating in administrative endorsement programs at three universities in east Tennessee. In this pursuit, I sought to determine the strength of the relationship that existed between the emotional intelligence scores of students in educational administration endorsement programs as measured by the *Emotional Competence Inventory* (ECI) (Boyatzis et al., 1999) and their various stages of program completion.

This study was designed to be correlational. It was a relationship study designed to analyze the strength of relationship between variables (Gall, Borg, & Gall, 1996). One limitation to this type of research is the tendency to infer that one event "causes" another event. This is misleading because the impact could be the result of a third variable. Another limitation of a correlational study could be that the relationship between two variables is the result of an artifact. An example would be a false positive relationship between two scales because the scales themselves contained similar items and not because their items are causally related (Gall et al.).

An advantage to the correlational method is its usefulness in studying problems in education and in other social sciences. Correlational research permits the researcher to investigate relationships among a large number of variables. Another advantage of the correlational method is that it provides information about the degree to which certain variables are related (Gall et al., 1996).

In summary, only an experiment can prove a definitive cause-and-effect relationship. Correlation coefficients are best used to measure the degree of relationship between two or more variables and explore possible causal factors (Gall et al., 1996).

Population and Sample

This study was conducted with the help of participants at various stages of educational administrative certification programs in three east Tennessee universities. The schools were chosen based upon their location and programs of study. The population consisted of all the students enrolled in educational administration programs at the three universities involved in the study. The sample existed as the students under the tutelage of the participating faculty members at the three schools. The results of this convenience sample will not be generalizable to other groups.

Data Collection

The study was limited to three east Tennessee universities that have educational leadership programs of comparable size. Contact was made with each school via e-mail (see Appendix A). The contacts at each school were initially asked to administer the ECI to students (no distinction was made between masters, specialist, or doctoral students) at the beginning or conclusion of their educational administration endorsement programs. The study was revised, however, and facilitators at each university were asked to administer the ECI to master's, specialist, or doctoral students at any stage of completion in an educational administration endorsement program. All groups of participants either completed the surveys in their established classes at their scheduled class time or took them home and returned them by request of the instructor.

Instrumentation

The indicator of emotional intelligence that was used in this study was the *Emotional Competence Inventory* (ECI) (Boyatzis et al., 1999). It consists of 110 items that reflect adaptive tendency toward emotional intelligence (see Appendix B). Each item in the questionnaire described a work-related behavior. Respondents used a 7-point Likert scale on which they were to indicate whether items were "slightly", "somewhat", or "very" characteristic of themselves (see Appendix C). A "not applicable" category was also provided. The higher the score, the greater the tendency an individual possessed to exhibit emotionally intelligent behavior.

The ECI is divided into 4 clusters (see Appendix D). An average for each cluster was found by summing responses (1-7) to the corresponding questions that pertain to a cluster and dividing by the number of valid responses. Responses of 8 (not applicable) were not calculated in the clusters' means.

In addition to the ECI, I provided a response form on the back of the ECI answer sheet on which the participants were asked to indicate their age, gender, years of leadership experience, number of semesters in the program, undergraduate major, and approximate undergraduate GPA (see Appendix E). All participants were asked to sign an informed consent document (see Appendix F).

Data Analysis

The findings of the study were analyzed using the Statistical Package for the Social Sciences (SPSS) computer program for Windows Version 8.0.

The first step in the data analysis involved measuring the strength of the relationship that existed between the aggregate emotional intelligence score and each student's age, gender, years of leadership experience, the amount of time spent in an administrative endorsement program, college attended, undergraduate major, and undergraduate GPA. The relationship between the cluster scores from the ECI were also tested against each student's age, gender, years of leadership experience, the amount of time spent in an administrative endorsement program, college attended, undergraduate major, and undergraduate GPA. The cluster scores were calculated by averaging the responses to the questions that pertained to each cluster. The clusters included: self-awareness, self-management, social awareness, and social skills. It should prove valuable for educators to determine if time spent in such programs correlates highly with a person's emotional intelligence level.

The data were initially analyzed using the Pearson product-moment coefficient (Pearson's r). Pearson's r is useful for measuring the strength of the correlation that exists between variables (Fraenkel & Wallen, 1996). The strength of the correlations that existed between age, gender, years of leadership experience, and the amount of time spent in an administrative endorsement program, undergraduate major, college attended, and undergraduate GPA was tested with the emotional intelligence aggregate score and its clusters.

The interval variables were then collapsed into categorical variables and a chi-square test was then used to analyze the data. The chi-square test is based on a comparison between the expected frequency and the actual, obtained frequency (Fraenkel & Wallen, 1996). If considerable differences exist between the expected and obtained frequencies, researchers can conclude that there are significant differences between the groups.

Summary

Chapter 3 provided a description of the study's basic methodology and its components. It was a quantitative design with the purpose of testing the strength of correlations between several independent variables (age, gender, years of experience, number of semesters in an educational administrative endorsement program, undergraduate major, undergraduate GPA) and 5 dependent variables (aggregate emotional intelligence score and each of the 4 cluster scores). The population was composed of students in educational administration endorsement certification programs at 3 east Tennessee universities. Each participant completed an instrument designed to measure his or her emotional intelligence. The findings of this study are presented in Chapter 4, while Chapter 5 provides a discussion of the findings and recommendations for practice and further study.

CHAPTER 4

RESULTS

The purpose of this study was to explore the emotional intelligence levels of students in educational administrative endorsement programs at three east Tennessee universities. Within this endeavor, the strength of the relationship that existed between the emotional intelligence level of students in educational administration endorsement programs and their various stages of program completion was measured. Other variables were also measured against the students' emotional intelligence levels.

The study's population consisted of graduate students (no distinction was made between masters, specialist, or doctoral students) enrolled in educational administration endorsement programs at three east Tennessee universities. The universities were identified as A, B, and C. The selection of schools was based on their willingness to participate and proximity to the researcher. A contact was made at each university. Initially, the contact was asked to allow students near the beginning and near the ending of an educational administration program to participate. As the study progressed however, the scope of the study was enlarged to allow any student, regardless of time in the program, to participate. A total of 85 students participated in the study from the three schools.

Table 1 shows the number of students who participated from each school. Each school was assigned a letter ranging from A-C. The highest participation from the sample came from school A with 43.5%. The percentage of student participation does not reflect each university's total population. School A was located closest to the researcher; school C was located farthest from the researcher. The researcher had the benefit of proximity and relationships with school A faculty to produce a greater instrument return rate. The researcher had to rely on correspondence via e-mail and telephone to recruit participation from schools B and C. Also, there was initial misunderstanding as to the timing of instrument distribution with school C, further affecting the low return rate of instrument.

Table 1

Participating Schools

<u>School</u>	<u>N</u>	<u>P</u>
A	37	43.5
B	30	35.3
C	18	21.2
Total	85	100

The majority of the respondents in this study were at least 40 years old. Participants in their thirties comprised 35.3% while those less than 30 represented 24.7% of those surveyed. There were 59 females (69.4%) and 26 males (30.6%).

Students were asked about administrative experience. The experience was not limited to education. A strong majority (71.8%) revealed that they had no administrative experience. This is not surprising, given that they were enrolled in administrative endorsement programs designed to prepare educational administrators. The other respondents confessed to at least one year of administrative experience.

Participants were asked to relate the number of semesters they had been enrolled in an educational administration endorsement program. Twenty-seven students had been enrolled 0-1 semesters. Forty-three had been enrolled 2-3 semesters. Fourteen had been enrolled 4-6 semesters.

Respondents were asked to list their undergraduate majors. Given that the students were enrolled in an educational administration program, it is not surprising that most (87.1%) of the students had an undergraduate degree in education.

Students were asked to report their undergraduate GPA as accurately as possible to the nearest tenth of a point. Twenty-three percent confessed to a GPA of 3.0 or lower. The majority held a GPA of 3.1-3.5. Students with a GPA of 3.6 or better comprised 31%.

Analysis

Initially, a correlation was conducted to test the strength of the relationship between the variables (see Table 8). The variables included age, gender, years of administrative experience, number of semesters enrolled in an educational administration endorsement program, undergraduate major, undergraduate GPA, and college attended. ANOVA was used to test the strength of the relationship between school and the dependent variables. As shown in Table 8, the highest correlation that existed between any of the variables occurred between college and social skills with an $r = .150$.

I planned to conduct a multiple regression with my data, but upon viewing the results in the correlation matrix (see Table 8), there was no evidence to warrant a regression. The same argument holds true for ANOVA.

Table 2

Correlations Between the Independent Variables with the Dependent Variables

<u>Independent Variables</u>	<u>Statistics Descriptions</u>	<u>Self-Aware.</u>	<u>Self-Manage.</u>	<u>Social Aware.</u>	<u>Social Skills</u>	<u>Aggreg. ECI</u>
Age	Correlation	.001	.024	-.047	.025	.011
	Sig. (2-tailed)	.994	.825	.668	.823	.919
	N	85	85	85	85	85
Gender	Correlation	.015	-.037	.133	.068	.047
	Sig. (2-tailed)	.894	.736	.226	.535	.668
	N	85	85	85	85	85
Years Experience	Correlation	.047	.046	-.072	.035	.024
	Sig. (2-tailed)	.672	.676	.514	.751	.824
	N	85	85	85	85	85
Number Semesters	Correlation	-.076	.028	-.015	.067	.024
	Sig. (2-tailed)	.495	.800	.895	.543	.829
	N	84	84	84	84	84
Undergrad. Major	Correlation	-.010	.034	-.096	-.058	-.035
	Sig. (2-tailed)	.925	.759	.384	.598	.750
	N	85	85	85	85	85
Undergrad. GPA	Correlation	.030	.065	-.025	.001	.018
	Sig. (2-tailed)	.785	.554	.818	.990	.869
	N	84	84	84	84	84
College	Correlation	.088	.126	.114	.150	.136
	Sig. (2-tailed)	.725	.521	.586	.392	.465
	N	85	85	85	85	85

Faced with little hope of correlational research producing any significant findings, I ventured to frequency based analysis to locate any significant results. I collapsed my interval variables to categorical variables and used a chi-square test to cross-tabulate the results between my independent and dependent variables.

Research Question #1

Is there a relationship between the scores on the ECI measurement of emotional intelligence among students in an educational administrative endorsement program and their various stages of program completion?

Chi-square tests were used to analyze the relationship between different variables (see Table 9). The variables analyzed in the pursuit of the answer were number of semesters enrolled in an educational administration endorsement program against cluster scores and aggregate emotional intelligence scores. The categories for number of semesters are as follows: 0–1 semesters, 2-3 semesters, and 4-6 semesters. The clusters include self-awareness, self-management, social-awareness, and social skills. The aggregate emotional intelligence score and cluster scores have been grouped into low, medium, and high categories. The break points for collapsing the variables occurred so that one third of the scores were in each low, medium, and high category. The boundaries for self-awareness were low (1 - 5.375), medium (5.375 – 6), and high (6 – 7). The break points for self-management were low (1 – 5.167), medium (5.167 – 5.843), and high (5.843 – 7). Social-awareness limits were low (1 – 5.603), medium (5.603 – 6.056), and high (6.056 – 7). Break points for social skills were low (1 – 5.326), medium (5.326 – 5.838), and high (5.838 – 7). The boundaries for aggregate emotional intelligence were low (1 – 5.366), medium (5.366 – 5.871), and high (5.871 – 7). The categories overlap. A student with a score of 6 would fall in the lowest category containing 6.

As shown in Table 3, the analysis between number of semesters enrolled and ECI cluster scores and aggregate scores revealed no significant relationships. Self-awareness yielded $\chi^2(4, N = 84) = .822, p = .936$. A majority of the students who had been in the program 4-6 semesters scored in the “low” category for self-awareness.

The results for self-management were $\chi^2(4, N = 84) = .915, p = .922$. A majority of the students (37%) who had been in the program 0-1 semesters scored in the “high” category for self-management.

Social-awareness produced $\chi^2(4, N = 84) = 4.497, p = .343$. Eighteen (41.9%) of the students who had been enrolled 2-3 semesters scored in the “medium” category for social-awareness.

Social skills revealed $\chi^2(4, N = 84) = 2.002, p = .735$. The largest number (42.9%) of students who had been enrolled in the program for 4-6 semesters scored in the lowest category for social skills.

Finally, the aggregate ECI score produced $\chi^2(4, N = 84) = 3.1559, p = .532$. Almost the same percentage for each category of length in the program scored in the “high” and “low” category for aggregate ECI score. The same number of students (29.6%) who had been in the program 0-1 semesters scored in the “low” and “high” categories. Fourteen students from the 2-3 semester group scored in the “low” category for aggregate, while 13 scored in the “high” category. Finally the 4-6 semester group had 6 (42.9%) students in each of the “low” and “high” categories.

Table 3

Crosstabulation and Chi-Square Analysis Showing the Relationship Between Number of Semesters Enrolled and ECI Cluster Scores and Aggregate Scores

			<u>Number of Semesters</u>				<u>χ^2</u>	<u><i>p</i></u>
			<u>0-1</u>	<u>2-3</u>	<u>4-6</u>	<u>Total</u>		
Self-awareness	Low	<i>N</i>	9	17	6	32	.822	.936
		<i>P</i>	33.3%	39.5%	42.9%	38.1%		
	Med	<i>N</i>	10	12	4	26		
		<i>P</i>	37%	27.9%	28.6%	31%		
	High	<i>N</i>	8	14	4	26		
		<i>P</i>	29.6%	32.6%	28.6%	31%		
Total	<i>N</i>	27	43	14	84			
	<i>P</i>	100%	100%	100%	100%			
Self-Mngmt.	Low	<i>N</i>	9	15	5	29	.915	.922
		<i>P</i>	33.3%	34.9%	35.7%	34.5%		
	Med	<i>N</i>	8	16	4	28		
		<i>P</i>	29.6%	37.2%	28.6%	33.3%		
	High	<i>N</i>	10	12	5	27		
		<i>P</i>	37%	27.9%	35.7%	32.1%		
Total	<i>N</i>	27	43	14	84			
	<i>P</i>	100%	100%	100%	100%			
Social-Awareness	Low	<i>N</i>	10	14	4	28	4.497	.343
		<i>P</i>	37%	32.6%	28.6%	33.3%		

Table 3 (continued)

			<u>0-1</u>	<u>2-3</u>	<u>4-6</u>	<u>Total</u>	<u>χ^2</u>	<u><i>p</i></u>
Social-Awareness	Med	<i>N</i>	7	18	8	33		
		<i>P</i>	25.9%	41.9%	57.1%	39.3%		
	High	<i>N</i>	10	11	2	23		
		<i>P</i>	37%	25.6%	14.3%	27.4%		
Total		<i>N</i>	27	43	14	84		
		<i>P</i>	100%	100%	100%	100%		
Social-Skill	Low	<i>N</i>	10	12	6	28	2.002	.735
		<i>P</i>	37%	27.9%	42.9%	33.3%		
	Med	<i>N</i>	9	17	3	29		
		<i>P</i>	33.3%	39.5%	21.4%	34.5%		
	High	<i>N</i>	8	14	5	27		
		<i>P</i>	29.6%	32.6%	35.7%	32.1%		
Total		<i>N</i>	27	43	14	84		
		<i>P</i>	100%	100%	100%	100%		
Agg.	Low	<i>N</i>	8	14	6	28	3.155	.532
		<i>P</i>	29.6%	32.6%	42.9%	33.3%		
	Med	<i>N</i>	11	16	2	29		
		<i>P</i>	40.7%	37.2%	14.3%	34.5%		
	High	<i>N</i>	8	13	6	27		
		<i>P</i>	29.6%	30.2%	42.9%	32.1%		
Total		<i>N</i>	27	43	14	84		
		<i>P</i>	100%	100%	100%	100%		

Research Question #2

Are there variables (sex, age, administrative experience, undergraduate major, undergraduate GPA, college attended) that show a relationship with the emotional intelligence scores?

Chi-square tests were also used to investigate the relationships between the emotional intelligence scores and demographic information such as gender, age, administrative experience, undergraduate major, undergraduate GPA, and college attended.

Table 4 shows the relationship between ECI cluster scores and aggregate scores as compared with age. Although no significant relationships can be reported, other observations are notable.

The results for self-awareness yielded $\chi^2(6, N = 85) = 3.646, p = .725$. The under 30 age group scored evenly (33.3%) among the “low”, “medium”, and “high” category for self-awareness. The results were similar for the 30s category. The majority (42.9%) of the 40s group scored in the “low” listing. “Medium” was the category housing the majority (46.2%) of the 50’s group

Self-management produced $\chi^2(6, N = 85) = .899, p = .989$. All age groups scored approximately one-third in each “low”, “medium”, and “high” category of self-management. The greatest of the majorities occurred in the 50s age group with 38.5% scoring in the “medium” category.

Social-awareness yielded $\chi^2(6, N = 85) = 1.831, p = .935$. The majority (42.9%) of the under 30 students scored in the “medium” category of social-awareness. The majority (40%) of the 30s age group scored in the “low” category. The majority of the 40s and 50s age group (42.9% and 46.2% respectively) scored in the “medium” listing for social-awareness.

The social skills results produced $\chi^2(6, N = 85) = 5.229, p = .515$. The majority of the under 30s and 30s age groups (42.9% and 36.7% respectively) scored in the “low” category for social skills. Both the 40s and 50s age groups had a majority (42.9% and 46.2% respectively) scoring in the “medium” category.

The results for the aggregate emotional intelligence scores were $\chi^2(6, N = 85) = 3.589, p = .732$. The majority (42.9%) of students under 30 scored in the “low” category for aggregate emotional intelligence. The majority (43.3%) of students whose ages were in the 30s scored in the “medium” category. Both the 40s and 50s age groups had a majority (38.1% and 46.2% respectively) of their scores in the “high” category for aggregate emotional intelligence scores.

Table 4

Crosstabulation and Chi-Square Analysis Showing the Relationship Between Age and ECI Cluster Scores and Aggregate Scores

			<u>Age</u>						
			<u>< 30</u>	<u>30s</u>	<u>40s</u>	<u>50s</u>	<u>Total</u>	<u>χ^2</u>	<u><i>p</i></u>
Self-Awareness	Low	<i>N</i>	7	11	9	5	32	3.646	.725
		<i>P</i>	33.3%	36.7%	42.9%	38.5%	37.6%		
	Med	<i>N</i>	7	10	4	6	27		
		<i>P</i>	33.3%	33.3%	19%	46.2%	31.8%		
	High	<i>N</i>	7	9	8	2	26		
		<i>P</i>	33.3%	30%	38.1%	15.4%	30.6%		
Total	<i>N</i>	21	30	21	13	85			
	<i>P</i>	100%	100%	100%	100%	100%			
Self-Mngmt.	Low	<i>N</i>	8	11	6	4	29	.899	.989
		<i>P</i>	38.1%	36.7%	28.6%	30.8%	34.1%		
	Med	<i>N</i>	7	9	7	5	28		
		<i>P</i>	33.3%	30%	33.3%	38.5%	32.9%		
	High	<i>N</i>	6	10	8	4	28		
		<i>P</i>	28.6%	33.3%	38.1%	30.8%	32.9%		
Total	<i>N</i>	21	30	21	13	85			
	<i>P</i>	100%	100%	100%	100%	100%			
Social-Awareness	Low	<i>N</i>	6	12	6	4	28	1.831	.935
		<i>P</i>	28.6%	40%	28.6%	30.8%	32.9%		
	Med	<i>N</i>	9	9	9	6	33		
		<i>P</i>	42.9%	30%	42.9%	46.2%	38.8%		

Table 4 (continued)

			<u><30</u>	<u>30s</u>	<u>40s</u>	<u>50s</u>	<u>Total</u>	<u>χ^2</u>	<u><i>p</i></u>
Social-Awareness	High	<i>N</i>	6	9	6	3	85		
		<i>P</i>	28.6%	30%	28.6%	23.1%	100%		
Total		<i>N</i>	21	30	21	13	85		
		<i>P</i>	100%	100%	100%	100%	100%		
Social Skills	Low	<i>N</i>	9	11	4	4	28	5.229	.515
		<i>P</i>	42.9%	36.7%	19%	30.8%	32.9%		
	Med	<i>N</i>	4	10	9	6	29		
		<i>P</i>	19%	33.3%	42.9%	46.2%	34.1%		
	High	<i>N</i>	8	9	8	3	28		
		<i>P</i>	38.1%	30%	38.1%	23.1%	32.9%		
Total		<i>N</i>	21	30	21	13	85		
		<i>P</i>	100%	100%	100%	100%	100%		
Agg.	Low	<i>N</i>	9	9	6	4	28	3.589	.732
		<i>P</i>	42.9%	30%	28.6%	30.8%	32.9%		
	Med	<i>N</i>	6	13	7	3	29		
		<i>P</i>	28.6%	43.3%	33.3%	23.1%	34.1%		
	High	<i>N</i>	6	8	8	6	28		
		<i>P</i>	28.6%	26.7%	38.1%	46.2%	32.9%		
Total		<i>N</i>	21	30	21	13	85		
		<i>P</i>	100%	100%	100%	100%	100%		

Table 5 shows the relationship between ECI cluster scores and aggregate scores as compared with gender. Although no significant relationships can be reported, other observations can be noted.

The results for self-awareness were $\chi^2(2, N = 85) = 1.656, p = .437$. The same number of men (38.5%) scored in the “low” and “high” category for self-awareness. The largest number of women (37.3%) scored in the low category for self-awareness.

Self-management yielded $\chi^2(2, N = 85) = .761, p = .683$. For males, highest concentration (38.5%) occurred in the “high” category of self-management, while the highest concentration of women (35.6%) was found in the “medium” listing.

Social-awareness produced $\chi^2(2, N = 85) = .701, p = .704$. The same number of men (38.5%) scored in the “low” and “medium” category, while the same number of women (30.5%) scored in the “low” and “high” category for social-awareness.

Social skills gave $\chi^2(2, N = 85) = 4.450, p = .108$. The majority of the men (46.2%) scored in the “low” listing for social skills, while the majority of the women (40.7%) scored in the “medium” category.

The results for the aggregate ECI score were $\chi^2(2, N = 85) = 1.620, p = .445$. Again, the majority of the men scores (42.3%) occurred in the “low” category for aggregate ECI score, while the majority of the women (37.3%) appeared in the “medium” listing.

Table 5

Crosstabulations and Chi-Square Analysis Showing the Relationship Between Gender and ECI Cluster Scores and Aggregate Scores

			<u>Gender</u>				
			<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>χ^2</u>	<u><i>p</i></u>
Self-Awareness	Low	<i>N</i>	10	22	32	1.656	.437
		<i>P</i>	38.5%	37.3%	37.6%		
	Med	<i>N</i>	6	21	27		
		<i>P</i>	23.1%	35.6%	31.8%		
	High	<i>N</i>	10	16	26		
		<i>P</i>	38.5%	27.1%	30.6%		

Table 5 (continued)

			<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>χ^2</u>	<u><i>p</i></u>
Total		<i>N</i>	26	59	85		
		<i>P</i>	100%	100%	100%		
Self-Mngmt.	Low	<i>N</i>	9	20	29	.761	.683
		<i>P</i>	34.6%	33.9%	34.1%		
	Med	<i>N</i>	7	21	28		
		<i>P</i>	26.9%	35.6%	32.9%		
	High	<i>N</i>	10	18	28		
		<i>P</i>	38.5%	30.5%	32.9%		
Total		<i>N</i>	26	59	85		
		<i>P</i>	100%	100%	100%		
Social-Awareness	Low	<i>N</i>	10	18	28	.701	.704
		<i>P</i>	38.5%	30.5%	32.9%		
	Med	<i>N</i>	10	23	33		
		<i>P</i>	38.5%	39%	38.8%		
	High	<i>N</i>	6	18	24		
		<i>P</i>	23.1%	30.5%	28.2%		
Total		<i>N</i>	26	59	85		
		<i>P</i>	100%	100%	100%		
Social Skills	Low	<i>N</i>	12	16	28	4.450	.108
		<i>P</i>	46.2%	27.1%	32.9%		
	Med	<i>N</i>	5	24	29		
		<i>P</i>	19.2%	40.7%	34.1%		

Table 5 (continued)

			<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>χ^2</u>	<u><i>p</i></u>
Social Skills	High	<i>N</i>	9	19	28		
		<i>P</i>	34.6%	32.2%	32.9%		
Total		<i>N</i>	26	59	85		
		<i>P</i>	100%	100%	100%		
Agg.	Low	<i>N</i>	11	17	28	1.620	.445
		<i>P</i>	42.3%	28.8%	32.9%		
	Med	<i>N</i>	7	22	29		
		<i>P</i>	26.9%	37.3%	34.1%		
	High	<i>N</i>	8	20	28		
		<i>P</i>	30.8%	33.9%	32.9%		
Total		<i>N</i>	26	59	85		
		<i>P</i>	100%	100%	100%		

Table 6 addresses the relationship between years of administrative experience and emotional intelligence scores. The variables were 0 years of experience and 1 or more years of experience. Chi-square analyses were conducted to test the strength of the relationships. No relationships were found to be significant, however some of the results are worth explaining.

Self-awareness yielded $\chi^2(2, N = 85) = 2.073, p = .355$. The majority (37.7%) of the students reporting 0 years of experience scored in the “low” category for self-awareness. A majority (41.7%) of the students having 1 or more years of experience scored slightly higher in the “medium” listing for self-awareness.

Self-management produced $\chi^2(2, N = 85) = .258, p = .879$. Both the 0 years experience and 1 or more years of experience groups scored approximately one-third in each of the “low”, “medium”, and “high” categories of self-management.

Social-awareness reported an $\chi^2(2, N = 85) = 2.219, p = .330$. The majority (36.1%) of students with no experience scored in the “medium” category of social-awareness. The majority (45.8%) of students with 1 or more years of experience also scored in the “medium” listing.

The results for social skills were $\chi^2(2, N = 85) = 2.130, p = .345$. The majority (36.1%) of the students with 0 years experience scored in the “high” category of social skills, while the majority (45.8%) of the students with 1 or more years experience scored in the “medium” listing.

Aggregate emotional intelligence scores produced $\chi^2(2, N = 85) = .362, p = .835$. Again, both groups of students scored approximately one-third in each of the “low”, “medium”, and “high” categories of aggregate emotional intelligence. A slight majority (37.5%) of students with 1 or more years of experience scored in the “low” category.

Table 6

Crosstabulation and Chi-Square Analysis Showing the Relationship Between Years of Administrative Experience and ECI Cluster Scores and Aggregate Scores

		<u>Years of Administrative Experience</u>			<u>Total</u>	<u>χ^2</u>	<u>p</u>
		<u>0 yrs</u>	<u>1 or more</u>	<u>yrs</u>			
Self-Awareness	Low	N	23	9	32	2.073	.355
		P	37.7%	37.5%	37.6%		
	Med	N	17	10	27		
		P	27.9%	41.7%	31.8%		
	High	N	21	5	26		
		P	34.4%	20.8%	30.6%		
Total		N	61	24	85		
		P	100%	100%	100%		
Self-Mngmt.	Low	N	20	9	29	.258	.879
		P	32.8%	37.5%	34.1%		

Table 6 (continued)

			<u>0 yrs</u>	<u>1 or more</u>	<u>Total</u>	<u>χ^2</u>	<u><i>p</i></u>
			<u>yrs</u>				
Self- Mngmt.	Med	<i>N</i>	20	8	28		
		<i>P</i>	32.8%	33.3%	32.9%		
	High	<i>N</i>	21	7	28		
		<i>P</i>	34.4%	29.2%	32.9%		
Total		<i>N</i>	61	24	85		
		<i>P</i>	100%	100%	100%		
Social- Awareness	Low	<i>N</i>	19	9	28	2.219	.330
		<i>P</i>	31.1%	37.5%	32.9%		
	Med	<i>N</i>	22	11	33		
		<i>P</i>	36.1%	45.8%	38.8%		
	High	<i>N</i>	20	4	24		
		<i>P</i>	32.8%	16.7%	28.2%		
Total		<i>N</i>	61	24	85		
		<i>P</i>	100%	100%	100%		
Social Skills	Low	<i>N</i>	21	7	28	2.130	.345
		<i>P</i>	34.4%	29.2%	32.9%		
	Med	<i>N</i>	18	11	29		
		<i>P</i>	29.5%	45.8%	34.1%		
	High	<i>N</i>	22	6	28		
		<i>P</i>	36.1%	25%	32.9%		
Total		<i>N</i>	61	24	85		
		<i>P</i>	100%	100%	100%		

Table 6 (continued)

			<u>0 yrs</u>	<u>1 or more</u>	<u>Total</u>	<u>χ^2</u>	<u><i>p</i></u>
			<u>yrs</u>				
Agg.	Low	<i>N</i>	19	9	28	.362	.835
		<i>P</i>	31.1%	37.5%	32.9%		
	Med	<i>N</i>	21	8	29		
		<i>P</i>	34.4%	33.3%	34.1%		
	High	<i>N</i>	21	7	28		
		<i>P</i>	34.4%	29.2%	32.9%		
Total	<i>N</i>	61	24	85			
	<i>P</i>	100%	100%	100%			

A chi-square analysis and cross-tabulation were also completed testing the relationships between the emotional intelligence (ECI cluster and aggregate) scores, and undergraduate major, undergraduate GPA, and college attended (see Appendices G, H, and I). As with the previous chi-square analyses, no significant relationships were discovered.

Chapter 5 presents a summary of the study's findings along with a description of the analysis and methods used to reach the findings. Findings, conclusions, and recommendations for practice and further study are also included.

CHAPTER 5

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to explore the emotional intelligence levels of students enrolled in educational administrative endorsement programs at three east Tennessee universities. Within this endeavor, the strength of the relationship that existed between the emotional intelligence level of students in educational administration endorsement programs and their various stages of program completion was measured. Other variables were also measured against the students' emotional intelligence levels. A convenience sample was recruited through an instructor at each of the three universities. Eighty-five students participated in the study.

The indicator of emotional intelligence used in this study was the *Emotional Competence Inventory* (ECI) (Boyatzis et al., 1999). It consisted of 110 items that reflected adaptive tendency toward emotional intelligence. Each item in the questionnaire described a work-related behavior. Respondents used a 7-point Likert scale on which they were to indicate whether items were "slightly", "somewhat", or "very" characteristic of themselves. A "not applicable" category was also provided .

The ECI is divided into 4 clusters. Emotional intelligence scores were calculated on the basis of the ECI cluster scores and ECI aggregate scores. In addition to the ECI, a response form on the back of the ECI answer sheet was provided on which the participants were asked to indicate their age, gender, years of leadership experience, number of semesters in the program, undergraduate major, and approximate undergraduate GPA. The findings were primarily descriptive in nature, although basic analyses were completed to identify any relationship between the different variables.

The findings of the study were analyzed using the Statistical Package for the Social Sciences (SPSS) computer program for Windows Version 8.0. The variables in the study were initially analyzed to check correlations. The findings of the study were then analyzed using frequency and crosstabulation tables to identify basic demographic information. Chi-square analyses were used to examine the relationships between the variables identified in the study. These variables included ECI cluster scores, ECI aggregate scores, age, gender, years of administrative experience, number of semesters in an educational administration endorsement program, undergraduate major, undergraduate GPA, and college attended.

Findings

Research Question #1

Is there a relationship between the scores on the ECI measurement of emotional intelligence among students in an educational administrative endorsement program and their various stages of program completion?

Frequency distributions were used to demographically categorize the number of semesters students had spent in educational administration endorsement programs. The majority of students had been in a program for 2-3 semesters. Students who had been in an educational administration endorsement program 0-1 semesters comprised the next largest group. The fewest number of students had been in a program for more than 3 semesters.

Review of studies reveals that while the standard intelligence quotient (IQ), tends to be static, emotional intelligence can be learned (Salopek, 1998). In order to analyze if there was a relationship between the emotional intelligence scores (cluster and aggregate) and number of semesters spent in an educational administration endorsement program, a chi-square analysis was used to identify any significant relationship between the variables and the strength of the relationship. This study produced no significant relationships between time spent in an educational administration endorsement program and emotional intelligence cluster or aggregate scores. In fact, in the cluster groups of self-awareness, self-management, social skills, and the ECI aggregate scores, the students who had been in a program the longest (4-6 semesters) had their majority of scores in the “low” category for each item mentioned above.

Research Question #2

Are there variables (sex, age, administrative experience, undergraduate major, undergraduate GPA, college attended) that show a relationship with the emotional intelligence scores?

Frequency distributions were again utilized to demographically characterize the study’s participants. The majority of the participants were 40 years old or older. The least representation came from the “under 30” category. Of the 85 respondents, the majority were female. Most of the respondents had no administrative experience. A great majority of the participants had majored in some area of education during completion of their undergraduate degree programs. This is not surprising given that they were in an educational administration endorsement program. Most of the respondents reported an undergraduate GPA of ≥ 3.1 . Finally, the greatest number of respondents were from school A.

Research shows that emotional intelligence abilities are learned and tend to improve as one ages and matures (Salopek, 1998). This study examined the relationship between the age of the students and their emotional intelligence scores (ECI cluster and aggregate). In order to analyze if there was a relationship between these variables, chi-square analyses were conducted to identify any significant relationships and the strength of the relationships. Based on the results, there was no significant relationship found between age and any of the ECI cluster or aggregate scores. However, students in their 40s and 50s had a greater percentage of scores in the medium and high categories for social skills and aggregate emotional intelligence when compared with students less than 40 years old.

Studies have shown that gender differences exist in the measurement of emotional intelligence (Mayer et al., as cited in King, 1999; Mayer & Geher, 1996). In research conducted by Mayer et al. (as cited in King), women scored slightly higher than men in 12 out of 12 tasks designed to distinguish emotional intelligence from other intelligences. This study examined the relationship between gender and emotional intelligence scores (ECI cluster and aggregate). In order to determine if there was a relationship between these variables, chi-square analyses were conducted to identify any significant relationships and the strength of the relationships. Based on the results, there was no significant relationship found between gender and any of the ECI cluster or aggregate scores. Although there were no significant relationships, the majority of the males scored in the “low” category for aggregate emotional intelligence while the majority of females appeared in the “medium” category.

Researchers have found that the most effective leaders are alike in that they all have a high degree of emotional intelligence (Goleman, 1998b). Studies have also shown that emotional intelligence can be learned (Salopek, 1998). This study examined the relationship between years of administrative experience and emotional intelligence scores (ECI cluster and aggregate scores). In order to analyze if there was a relationship between these two variables, chi-square analyses were used to identify any significant relationship between the variables and the strength of the relationship. Based on the results, there was not a significant relationship between the years of administrative experience and any of the ECI cluster or aggregate scores. However, students with one or more years of administrative experience had a majority of their scores in the “medium” category, while students with zero years of experience had a majority of scores in the “low” category.

Conclusions

Based primarily upon the review of the literature, it is clear that people with high levels of emotional intelligence have greater career success, foster stronger personal relations, have more effective leadership skills, and are healthier than those with low emotional intelligence (Cooper, 1997). Further, they are able to monitor and evaluate others' feelings (Salovey & Mayer, 1990), empathize with others (Kelley & Caplan, 1993), and excel in interpersonal skills (Goleman, 1998). Many of these same qualities are those found to be characteristic of effective leaders (Bass, 1990). Many believe that the characteristics listed above are the abilities that every organization needs to develop in people (Goleman, 1998).

Research has shown females to have a greater propensity for emotional intelligence (Mayer et al., as cited in King, 1999). This study found a greater percentage of males to score in the "low" category of aggregate emotional intelligence than females. Studies have also found that emotional intelligence-based competencies are learned abilities and tend to improve as people mature (Salopek, 1998).

While this study yielded no statistically significant results, several patterns are worthy of note. Inconsistent with the research, this study found that in the cluster groups of self-awareness, self-management, social skills, and the ECI aggregate scores, the students who had been in a program the longest had the majority of their scores in the "low" category for each item mentioned above. Consistent with the research, however, this study found that a greater percentage of older students' scores appeared in higher categories of social skills and aggregate emotional intelligence than younger students' scores. Finally, this study found the majority of students who had more administrative experience appeared in higher categories of self-awareness.

Recommendations for Practice

Based on a review of the literature, several recommendations are proposed to encourage continuing research in this field and changing practices in educational administration endorsement programs:

- 1) Faculty involved in educational administration endorsement programs should be aware of emotional intelligence issues in program planning. Research shows that emotional intelligence is the single most important factor in effective leadership (Goleman, 1998b).
- 2) Educational administration endorsement faculty should be aware of emotional intelligence issues in helping prospective leaders to be more effective with those whom they will lead.

Recommendations for Further Research

Based on the lack of statistically significant findings in this study, several recommendations are proposed to aid future researchers as they investigate the characteristics of emotional intelligence:

- 1) The inclusion of more participants (a larger N) is suggested. Gall et al. (1996) stated, "It is a fact that statistical power increases automatically with sample size, assuming that the other factors ... are held constant" (p. 187). One factor that may have resulted in the absence of statistically significant findings in this study was the relatively low sample size (N=85). Research conducted in the future may yield significant findings if a larger sample is used.
- 2) The completion of the ECI as directed is suggested. In this study, with permission granted by a representative of the instruments' developers, only the subjects completed the ECI. The directions for general use of the instrument call for multi-raters (peers, managers, clients) in addition to self-raters. Research conducted in the future using this instrument may yield more information if the ECI is used as initially developed.
- 3) Research that includes balanced numbers of students at each stage of educational administration endorsement programs is recommended.
- 4) Longitudinal research in this field is recommended to measure students' emotional intelligence levels at the beginning of their program and again at the end of their program to test for significant differences.
- 5) Additional research in this field could be conducted in an attempt to correlate program standards (i.e. ISLLC) with concepts of emotional intelligence.

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APPENDICES

APPENDIX A

E-mail Sent to Colleges

Subject: Emotional Competence Inventory (ECI)

I am a doctoral student in the Educational Leadership and Policy Analysis department at East Tennessee State University. My chairperson, Dr. Russell Mays, has informed me that you might be willing to administer this instrument (ECI) to your cohort and your colleagues' cohort students who are seeking an educational administrative endorsement. The instrument is on the attached file. For the purposes of my study, this instrument should be given to students who are within their first or last semester of cohort classes. They may be seeking either a master's or doctoral degree.

The instrument is designed to gauge a person's emotional intelligence and will take about 30-35 minutes. The instructions will be provided. Each student should rate themselves on the answer sheet provided using the Likert scale. This can be done in or outside of class. I humbly request that the answer sheets be retrieved from the students within 2 weeks of distribution. It is not necessary to send back the instrument - just the answer sheet. I will also be including a demographic portion to be completed by each participant on the reverse of each answer sheet. If I've been unclear about anything, please don't hesitate to inquire further before accepting this request.

If you agree to allow your students to participate, I will mail you the amount of instruments and answer sheets that you request in reply to this e-mail along with a postage paid envelope for return. Please e-mail me the address to which you wish the instruments be sent and the number of instruments you will need. Your time and efforts are greatly appreciated.

Respectfully,
Holly S. Click
Teacher
Greeneville City Schools

APPENDIX B

Emotional Competence Inventory

1. Confronts unethical actions in others.
2. Identifies and uses opportunities to meet new people and develop new contacts.
3. Presents self in an assured, forceful, impressive, and unhesitating manner.
4. Enlists others in pursuit of a change initiative.
5. Knows how feelings impact own performance.
6. Applies standard procedures flexibly (e.g., alters normal procedures to fit a specific situation).
7. Establishes and maintains close relationships among work associates.
8. Believes oneself to be among the most capable for a job and likely to succeed.
9. Stimulates enthusiasm and makes work exciting.
10. Finds and acts upon present opportunities.
11. Makes career choices to leverage opportunities to learn new things or broaden one's experiences.
12. Accurately reads key relationships social networks in groups, organizations, or the larger world.
13. Acknowledges own strengths and areas of weakness.
14. Models the change expected of others.
15. Promotes group reputation with outsiders.
16. Has sense of humor about oneself.
17. Fine-tunes delivery in accord with audience's mood and emotional reaction.
18. Respects, treats with courtesy, and relates well to people of diverse backgrounds.
19. Uses factual arguments to persuade and influence others (e.g., appeals to reason or data).
20. Matches customer or client needs to services or products.
21. Show attention to detail (e.g. double-checks information for accuracy).
22. Values, solicits, and uses others' input.
23. Behaves calmly in stressful situations.
24. Responds to stereotyping by stating and appreciating person's uniqueness.
25. Asks questions to understand another person.
26. Accurately reads people's moods, feelings, or nonverbal cues.
27. Maintains clear communication of mutual expectations with customers or clients.
28. Uses strong mutual relationships toward work goals.
29. Feels confident to work without the need for direct supervision.
30. Takes personal responsibility for resolving customer or client problems undefensively.
31. Has "presence" (e.g., stands out in a group).
32. Gains the buy-in of influential parties and enlists their help in convincing others.

APPENDIX B (continued)

33. Expresses positive expectations, or respect for others work.
34. Gives directions or demonstrations to develop someone.
35. Consistently and visibly leads by example and sets a clear standard for teams and colleagues.
36. Is not defensive in receiving new information or perspectives about oneself.
37. Stays composed and positive, even in trying moments.
38. Effective in give-and-take with an audience.
39. Resists the impulse to act immediately.
40. Cuts through red tape and bends the rules when necessary to get the job done.
41. Seeks out opportunities to broaden one's repertoire of capabilities.
42. Makes decisions, sets priorities, and chooses goals on the basis of calculated costs and benefits.
43. Gets people to "buy in" or take ownership of ideas or plans.
44. Follows through on commitments.
45. Sets own standards and uses them to judge performance.
46. Willingly changes ideas or perceptions based on new information or contrary evidence.
47. Leads by giving direction and by using one's formal authority or positional power.
48. Finds a common ideal to which all parties in a conflict can endorse.
49. Recognizes the situations that arouse own emotions.
50. Smoothly juggles multiple demands.
51. Brings disagreements and grievances into the open.
52. Recognizes specific strengths or development.
53. Pays attention and listens.
54. Expresses an explicit vision for change to those affected.
55. Expresses positive expectations about others' potential.
56. Continuously broadens and maintains a wide network of relationships.
57. Understands the organization's values and culture (e.g., unspoken rules and expectations).
58. Acts on own values even when there is significant risk.
59. Builds team spirit by creating symbols of identity and pride.
60. States a need for change.
61. Takes a strong, public stand to advocate change despite opposition.
62. Identifies and encourages opportunities for collaboration across and within groups.
63. Invites dialogue when communicating.
64. Uses nonverbal cues like tone of voice to focus on the message.
65. Gives timely, constructive feedback in behavioral rather than personal terms.
66. Removes barriers to change.
67. Acts rather than simply waiting to study options.
68. Takes symbolic actions to have a specific impact on the audience.

APPENDIX B (continued)

69. Helps de-escalate conflicts.
70. Anticipates obstacles to a goal in order to overcome them.
71. Publicly admits to mistakes even when it is not easy to do.
72. Adapts by changing overall strategy, goals, or projects to fit the situation.
73. Uses examples and/or visual aids to effectively clarify or emphasize the message.
74. Goes beyond what is required or expected.
75. Calms others in stressful situations.
76. Acts as a trusted advisor to a customer or client over time.
77. Sets measurable and challenging goals for oneself and others.
78. Expresses dissatisfaction with the status quo and seek ways to improve performance.
79. Is comfortable with ambiguity.
80. Personally leads change initiatives.
81. Initiates action to create possibilities for the future.
82. Communicates the positions of those involved in a conflict to all concerned.
83. Makes self available to customers or clients.
84. Convinces by appealing to people's self-interest.
85. Develops broad, behind-the-scenes support to increase persuasive impact.
86. Assumes significant personal or professional risk to accomplish important goals (e.g., challenging powerful others with an unpopular point of view).
87. Takes calculated risks to reach a goal.
88. Compensates for own stated limitations by working with others with the necessary strengths.
89. Monitors customer or client satisfaction.
90. Expresses concern with own image and reputation, or his/her organization's.
91. Speaks out for a course of action one believes in even when others disagree.
92. Focuses disagreements on the issues or actions involved rather than the person.
93. Understands the underlying causes for someone's feelings, behavior, or concerns.
94. Expresses own feelings.
95. Uses engaging style in writing or presenting to an audience.
96. Understands the history and reasons for continuing organizational issues.
97. Understands political forces at work in the organization.
98. Is organized and careful in own work.
99. Strives to keep promises.
100. Inspires others to action by articulating a compelling mission or vision.
101. Demonstrates an ability to see things from someone else's perspective.
102. Is decisive.
103. Provides long-term mentoring or coaching in the context of a continuing friendship.

APPENDIX B (continued)

- 104. Actively promotes a friendly climate, good morale, and cooperation.
- 105. Seeks information in unusual ways or from sources not typically used.
- 106. Behaves consistently with own stated values and beliefs.
- 107. Builds trust through reliability - can be counted on.
- 108. Maintains cooperative working relationships.
- 109. Addresses unexpressed needs of the customer or client.
- 110. Shares information (e.g., keeps others informed) to foster collaboration.

APPENDIX C

Emotional Competence Inventory Response Form



<u>Slightly</u>	<u>Somewhat</u>	<u>Very</u>	<u>N/A</u>	<u>Slightly</u>	<u>Somewhat</u>	<u>Very</u>	<u>N/A</u>	<u>Slightly</u>	<u>Somewhat</u>	<u>Very</u>	<u>N/A</u>
1	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0	0
35	0	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0	0
39	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0	0	0
43	0	0	0	0	0	0	0	0	0	0	0
44	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0	0	0	0
47	0	0	0	0	0	0	0	0	0	0	0
48	0	0	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0	0
53	0	0	0	0	0	0	0	0	0	0	0
54	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0
56	0	0	0	0	0	0	0	0	0	0	0
57	0	0	0	0	0	0	0	0	0	0	0
58	0	0	0	0	0	0	0	0	0	0	0
59	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0
61	0	0	0	0	0	0	0	0	0	0	0
62	0	0	0	0	0	0	0	0	0	0	0
63	0	0	0	0	0	0	0	0	0	0	0
64	0	0	0	0	0	0	0	0	0	0	0
65	0	0	0	0	0	0	0	0	0	0	0
66	0	0	0	0	0	0	0	0	0	0	0
67	0	0	0	0	0	0	0	0	0	0	0
68	0	0	0	0	0	0	0	0	0	0	0
69	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0
71	0	0	0	0	0	0	0	0	0	0	0
72	0	0	0	0	0	0	0	0	0	0	0
73	0	0	0	0	0	0	0	0	0	0	0
74	0	0	0	0	0	0	0	0	0	0	0
75	0	0	0	0	0	0	0	0	0	0	0
76	0	0	0	0	0	0	0	0	0	0	0
77	0	0	0	0	0	0	0	0	0	0	0
78	0	0	0	0	0	0	0	0	0	0	0
79	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0
81	0	0	0	0	0	0	0	0	0	0	0
82	0	0	0	0	0	0	0	0	0	0	0
83	0	0	0	0	0	0	0	0	0	0	0
84	0	0	0	0	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0	0	0	0	0
86	0	0	0	0	0	0	0	0	0	0	0
87	0	0	0	0	0	0	0	0	0	0	0
88	0	0	0	0	0	0	0	0	0	0	0
89	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0
96	0	0	0	0	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0
101	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0
104	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0
106	0	0	0	0	0	0	0	0	0	0	0
107	0	0	0	0	0	0	0	0	0	0	0
108	0	0	0	0	0	0	0	0	0	0	0
109	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0

APPENDIX D

Cluster Components

Cluster	Competency	Item #
Self-Awareness	Emotional Self-Awareness	94
		49
		5
	Accurate Self-Assessment	13
		36
		16
		88
		41
		11
	Self-Confidence	29
		8
		102
		31
		3
		91
Self-Management	Self-Control	86
		39
		23
	Trustworthiness	37
		75
		106
		71
		58
		1
	Conscientiousness	98
		21
		44
		99
		107
		46
Achievement Orientation	Adaptability	6
		79
		50
	Initiative	72
		45
		78
		77
		42
		70
		87
Social Awareness	Empathy	10
		67
		74
		40
		105
		81
		53
		25

APPENDIX D (continued)

Cluster	Competency	Item #
		26
		18
		101
		24
		93
	Organizational Awareness	12
		57
		97
		96
	Service Orientation	27
		89
		30
		83
		109
		20
		76
Social Skills	Developing Others	55
		34
		65
		52
		103
	Leadership	47
		9
		35
		100
	Influence	90
		19
		84
		68
		32
		85
		43
	Communication	95
		73
		64
		38
		63
		17
	Change Catalyst	60
		54
		66
		4
		80
		14
		61
	Conflict Management	51
		92
		82
		69
		48
	Building Bonds	2
		7
		56

APPENDIX D (continued)

Cluster	Competency	Item #
		28
	Teamwork & Collaboration	108
		110
		33
		22
		62
		104
		15
		59

APPENDIX E

Demographic Inventory

Please answer the following questions.

1) Please write your age in the blank provided. _____

2) Please mark your gender. male _____ female _____

6) Please write the number of years (including "0" if none) you have held an educational administrative position (i.e. principal, assistant principal, central office position, etc.) or any other supervisory position unrelated to education. You may combine the years if applicable. _____

7) Please list the number of semesters you have been enrolled in an educational administrative endorsement program. _____

5) Please list your undergraduate major. _____

6) Please list your approximate undergraduate GPA to the nearest tenth (i.e. 3.4, 2.8). _____

APPENDIX F

Informed Consent Form

East Tennessee State University

INFORMED CONSENT

Principal Investigator: Holly S. Click

Page 1 of 2

Date: 10-18-01

Title of Project: Exploration of Emotional Intelligence Scores Among Students in Educational Endorsement Programs.

This Informed Consent will explain about a research project in which I would appreciate your participation. It is important that you read, or have read to you this material carefully and then decide if you wish to be a volunteer. Please ask any questions you may have before signing (initialing) the document. Although your participation will be greatly appreciated, by no means is there any pressure for you to participate in this research.

PURPOSE

The purposes of this research study are to collect and analyze data concerning emotional intelligence levels of students in educational administrative endorsement programs at three universities in East Tennessee. Emotional intelligence is a topic that has become familiar to many within the last decade due to the work of Daniel Goleman. This study will compare the emotional intelligence levels of students at this university with students at University of Tennessee, Knoxville, and University of Tennessee, Chattanooga. It will also attempt to investigate the levels of emotional intelligence by gender, age, years of administrative experience, amount of time spent in the endorsement program, undergraduate major, and undergraduate GPA.

DURATION

Because the survey instrument calls for participants to give their reaction to each of one-hundred ten short questions, it should take 30-35 minutes to complete.

PROCEDURES

The instrument to be used in this study is a four-page survey instrument calling for participants to respond by varying degrees of "slightly", "somewhat", and "very" as the questions apply to them. There is also a "N/A" response. This instrument would be distributed by the course instructor at a convenient time and collected from participants as they exit the classroom or as they return to class the following class time (as it pleases the instructor). The instrument does not request participants' names or any other identifying information. This consent form will be collected and returned under separate cover to the researcher. No connection will be made between the survey forms and this informed consent document.

POSSIBLE RISKS/DISCOMFORTS

There are no known risks associated with this study.

POSSIBLE BENEFITS AND/OR COMPENSATION

There are no known benefits to you as an individual participant. There is no compensation provided to you as an individual participant.

Volunteer initials _____ Date _____ Page 1 of 2

APPENDIX F (continued)

CONTACT FOR QUESTIONS

If you have any questions, problems, or research-related medical problems at any time, you may call Holly S. Click at (423) 639-7841 or Dr. Russell Mays, at (423) 439-4430. You may also call the Chairman of the Institutional Review Board at (423) 439-6134 for any questions you may have about your rights as a research participant.

CONFIDENTIALITY

Every attempt will be made to see that my study results are kept confidential. A copy of the records from this study will be stored in the home of the principal investigator for at least 10 years after the end of this research. The results of this study may be published and/or presented at the meetings without naming you as a participant. Although your rights and privacy will be maintained, the Secretary of the Department of Health and Human Services, the East Tennessee State University/V.A Medical Center Institutional Review Board, the Food and Drug Administration, and the ETSU Department of Educational Leadership and Policy Analysis have access to the study records. My records will be kept completely confidential according to current legal requirements. They will not be revealed unless required by law, or as noted above.

COMPENSATION FOR MEDICAL TREATMENT

East Tennessee State University (ETSU) will pay the cost of emergency first aid for any injury which may happen as a result of your being in this study. They will not pay for any other medical treatment. Claims against ETSU or any of its agents or employees may be submitted to the Tennessee Claims Commission. These claims will be settled to the extent allowable as provided under TCA Section 9-8-307. For more information about claims call the Chairman of the Institutional Review Board of ETSU at (423) 439-6134.

VOLUNTARY PARTICIPATION

The nature, demands, risks, and benefits of the project have been explained to me as well as are known and available. I understand what my participation involves. Furthermore, I understand that I am free to ask questions and withdraw from the project at any time, without penalty. I have read, or have had read to me, and fully understand the consent form. I sign it freely and voluntarily. A signed copy has been given to me. Your study record will be maintained in strictest confidence according to legal requirements and will not be revealed unless required by law or as noted above.

Signature of Volunteer _____ Date _____

Signature of Investigator _____ Date _____

APPENDIX G

Crosstabulation and Chi-Square Analysis Showing the Relationship Between Undergraduate Major and ECI Cluster Scores and Aggregate Scores

			Undergraduate Major				
			<u>Educ.</u>	<u>Other</u>	<u>Total</u>	<u>χ^2</u>	<u><i>p</i></u>
			<u>Major</u>	<u>Major</u>			
Self-awareness	Low	<i>N</i>	27	5	32	.925	.630
		<i>P</i>	36.5%	45.5%	37.6%		
	Med	<i>N</i>	23	4	27		
		<i>P</i>	31.1%	36.4%	31.8%		
	High	<i>N</i>	24	2	26		
		<i>P</i>	32.4%	18.2%	30.6%		
Total	<i>N</i>	74	11	85			
	<i>P</i>	100%	100%	100%			
Self-mngmt.	Low	<i>N</i>	25	4	29	.187	.911
		<i>P</i>	33.8%	36.4%	34.1%		
	Med	<i>N</i>	25	3	28		
		<i>P</i>	33.8%	27.3%	32.9%		
	High	<i>N</i>	24	4	28		
		<i>P</i>	32.4%	36.4%	32.9%		
Total	<i>N</i>	74	11	85			
	<i>P</i>	100%	100%	100%			
Social-awareness	Low	<i>N</i>	23	5	28	1.039	.595
		<i>P</i>	31.1%	45.5%	32.9%		

APPENDIX G (continued)

			<u>Educ.</u>	<u>Other</u>	<u>Total</u>	<u>χ^2</u>	<u><i>p</i></u>	
			<u>Major</u>	<u>Major</u>				
Social-Awareness	Med	<i>N</i>	30	3	33			
		<i>P</i>	40.5%	27.3%	38.8%			
	High	<i>N</i>	21	3	24			
		<i>P</i>	28.4	27.3%	28.2%			
	Total	<i>N</i>	74	11	85			
		<i>P</i>	100%	100%	100%			
Social Skills	Low	<i>N</i>	24	4	28	3.772	.152	
		<i>P</i>	32.4%	36.4%	32.9%			
	Med	<i>N</i>	23	6	29			
		<i>P</i>	31.1%	54.5%	34.1%			
	High	<i>N</i>	27	1	28			
		<i>P</i>	36.5%	9.1%	32.9%			
	Total	<i>N</i>	74	11	85			
		<i>P</i>	100%	100%	100%			
	Agg.	Low	<i>N</i>	24	4	28	.187	.911
			<i>P</i>	32.4%	36.4%	32.9%		
		Med	<i>N</i>	25	4	29		
			<i>P</i>	33.8%	36.4%	34.1%		
High		<i>N</i>	25	3	28			
		<i>P</i>	33.8%	27.3%	32.9%			
Total		<i>N</i>	74	11	85			
		<i>P</i>	100%	100%	100%			

APPENDIX H

Crosstabulation and Chi-Square Analysis Showing the Relationship Between Undergraduate GPA and ECI Cluster Scores and Aggregate Scores

		Undergraduate GPA					χ^2	<i>p</i>
		<u>3.0 and</u>	<u>3.1 to 3.5</u>	<u>3.6 to 4.0</u>	<u>Total</u>			
		<u>under</u>						
Self-Awareness	Low	<i>N</i>	9	11	11	31	1.235	.872
		<i>P</i>	45%	33.3%	35.5%	36.9%		
	Med	<i>N</i>	6	10	11	27		
		<i>P</i>	30%	30.3%	35.5%	32.1%		
	High	<i>N</i>	5	12	9	26		
		<i>P</i>	25%	36.4%	29%	31%		
Total		<i>N</i>	20	33	31	84		
		<i>P</i>	100%	100%	100%	100%		
Self-mngmt.	Low	<i>N</i>	6	11	11	28	1.740	.783
		<i>P</i>	30%	33.3%	35.5%	33.3%		
	Med	<i>N</i>	9	10	9	28		
		<i>P</i>	45%	30.3%	29%	33.3%		
	High	<i>N</i>	5	12	11	28		
		<i>P</i>	25%	36.4%	35.5%	33.3%		
Total		<i>N</i>	20	33	31	84		
		<i>P</i>	100%	100%	100%	100%		

APPENDIX H (continued)

			<u>3.0 and</u>	<u>3.1-3.5</u>	<u>3.6-4.0</u>	<u>Total</u>	<u>χ^2</u>	<u><i>p</i></u>
			<u>under</u>					
Social-Awareness	Low	<i>N</i>	5	11	11	27	1.336	.855
		<i>P</i>	25%	33.3%	35.5%	32.1%		
	Med	<i>N</i>	10	12	11	33		
		<i>P</i>	50%	36.4%	35.5%	39.3%		
	High	<i>N</i>	5	10	9	24		
		<i>P</i>	25%	30.3%	29%	28.6%		
Total	<i>N</i>	20	33	31	84			
	<i>P</i>	100%	100%	100%	100%			
Social Skills	Low	<i>N</i>	6	9	12	27	3.517	.475
		<i>P</i>	30%	27.3%	38.7%	32.1%		
	Med	<i>N</i>	9	13	7	29		
		<i>P</i>	45%	39.4%	22.6%	34.5%		
	High	<i>N</i>	5	11	12	28		
		<i>P</i>	25%	33.3%	38.7%	33.3%		
Total	<i>N</i>	20	33	31	84			
	<i>P</i>	100%	100%	100%	100%			
Agg.	Low	<i>N</i>	6	10	11	27	.758	.944
		<i>P</i>	30%	30.3%	35.5%	32.1%		
	Med	<i>N</i>	8	12	9	29		
		<i>P</i>	40%	36.4%	29%	34.5%		
	High	<i>N</i>	6	11	11	28		
		<i>P</i>	30%	33.3%	35.5%	33.3%		
Total	<i>N</i>	20	33	31	84			
	<i>P</i>	100%	100%	100%	100%			

APPENDIX I

Crosstabulation and Chi-Square Analysis Showing the Relationship Between College and ECI Cluster Scores and Aggregate Scores

		College							
			<u>A</u>	<u>B</u>	<u>C</u>	<u>Total</u>	<u>χ^2</u>	<u>p</u>	
Self-awareness	Low	<i>N</i>	9	15	8	32	6.204	.184	
		<i>P</i>	24.3%	50%	44.4%	37.6%			
	Med	<i>N</i>	16	6	5	27			
		<i>P</i>	43.2%	20%	27.8%	31.8%			
	High	<i>N</i>	12	9	5	26			
		<i>P</i>	32.4%	30%	27.8%	30.6%			
Total	<i>N</i>	37	30	18	85				
	<i>P</i>	100%	100%	100%	100%				
Self-mngmt.	Low	<i>N</i>	10	11	8	29	5.880	.208	
		<i>P</i>	27%	36.7%	44.4%	34.1%			
	Med	<i>N</i>	16	10	2	28			
		<i>P</i>	43.2%	33.3%	11.1%	32.9%			
	High	<i>N</i>	11	9	8	28			
		<i>P</i>	29.7%	30%	44.4%	32.9%			
Total	<i>N</i>	37	30	18	85				
	<i>P</i>	100%	100%	100%	100%				

APPENDIX I (continued)

			<u>A</u>	<u>B</u>	<u>C</u>	<u>Total</u>	<u>χ^2</u>	<u>p</u>
Social-Awareness	Low	<i>N</i>	9	12	7	28	2.394	.664
		<i>P</i>	24.3%	40%	38.9%	32.9%		
	Med	<i>N</i>	17	10	6	33		
		<i>P</i>	45.9%	33.3%	33.5%	38.8%		
	High	<i>N</i>	11	8	5	24		
		<i>P</i>	29.7%	26.7%	27.8%	28.2%		
Total	<i>N</i>	37	30	18	85			
	<i>P</i>	100%	100%	100%	100%			
Social Skills	Low	<i>N</i>	10	11	7	28	1.622	.805
		<i>P</i>	27%	36.7%	38.9%	32.9%		
	Med	<i>N</i>	13	11	5	29		
		<i>P</i>	35.1%	36.7%	27.8%	34.1%		
	High	<i>N</i>	14	8	6	28		
		<i>P</i>	37.8%	26.7%	33.3%	32.9%		
Total	<i>N</i>	37	30	18	85			
	<i>P</i>	100%	100%	100%	100%			
Agg.	Low	<i>N</i>	9	11	8	28	3.487	.480
		<i>P</i>	24.3%	36.7%	44.4%	32.9%		
	Med	<i>N</i>	16	9	4	29		
		<i>P</i>	43.2%	30%	22.2%	34.1%		
	High	<i>N</i>	12	10	6	28		
		<i>P</i>	32.4%	33.3%	33.3%	32.9%		
Total	<i>N</i>	37	30	18	85			
	<i>P</i>	100%	100%	100%	100%			

VITA

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 1994

 Tusculum College, Greeneville, Tennessee;
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