Emotional Intelligence, Social Competence, and Success in High School Students

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EMOTIONAL INTELLIGENCE, SOCIAL COMPETENCE, AND SUCCESS IN HIGH SCHOOL STUDENTS

A Specialist Project
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By Amanda Tyson Crick
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EMOTIONAL INTELLIGENCE, SOCIAL COMPETENCE, AND SUCCESS IN HIGH SCHOOL STUDENTS

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The relationship between emotional intelligence, social competence, and success was investigated. Success was operationally defined as elected leadership within a school group, club, or organization. The study sample consisted of 31 males and 89 females ages fourteen to seventeen years (grades 9 through 11) from three counties in south-central Kentucky. Student participants were characterized as Leaders, Joiners, or Non-Joiners of school groups and were asked to complete the BarOn Emotional Quotient Inventory: Youth Version (BarOn EQi:YV) (BarOn & Parker, 2000), which assessed emotional intelligence, and the Social Skills Rating System - Secondary Student Form (SSRS) (Gresham & Elliott, 1990), which provided an evaluation of social competence. Teachers of the students in the study were also asked to complete a Social Skills Rating System-Teacher Form. Results lent support to three of the four hypotheses. Female leaders exhibited higher than chance Total EQ scores, as well as higher scores on Intrapersonal, Interpersonal, and Adaptability factors than the standardization sample. Male leaders appeared to possess more ability within the domain of Adaptability than the standardization sample. Significant mean score differences existed between the emotional intelligence scores of those identified as Leaders, Joiners, and Non-Joiners of groups. Emotional intelligence was not shown to increase with age, as no significant
correlations emerged between emotional intelligence scores and age levels. Finally, teacher ratings of social skills were significantly higher for leaders than for Joiners and Non-Joiners of groups. Implications and suggestions for further research were discussed.
CHAPTER ONE

Introduction

What qualities in life make us successful? This question is an age-old one with still no definitive answers. Many have suggested that general intelligence dictates an individual’s life accomplishments by, in essence, estimating the bounds of a person’s abilities and thereby placing limitations on what one can do. Others like to think there is more than one factor in life that can help make up the difference of what one lacks in general intelligence, thus ensuring success by other means (Sternberg, 1998).

While people endorse alternative theories of intelligence, such as Sternberg’s, because of the optimism they offer, there seems to be a certain amount of substance behind the publicity. The public is constantly searching for a more socially acceptable explanation of what can determine life success. Goleman (1995) offered an explanation of what makes an individual successful by drawing on foundations of early researchers such as Saarni (1990). He popularized the phrase emotional intelligence by stating that personality and brain/physiological characteristics can play a more significant role than IQ in determining one’s life successes. Even though it is easy to buy into Goleman’s enthusiastic view, it begs the question . . . Is there any research to support these ideas?

The notion of alternative intelligences has been around for a while, but not until the past decade has the specific topic of emotional intelligence gained popularity. With
researchers such as Mayer and Salovey (1997) in the forefront, emotional intelligence has actually been operationally defined and now has some evidence as a valid construct. Emotional intelligence is described by them as involving

the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth. (p. 10)

Emotional intelligence has also been considered as a nonverbal subset of social intelligence (Salovey & Mayer, 1990). As many studies look to social intelligence to compensate for intellectual inadequacies, we usually use the following quote as a driving force. “The man with the high abstract intelligence gets the Phi Beta Kappa key, but the man with the high social intelligence gets the votes or the business as the case may be” (Broom, 1928, p. 426). It has been hypothesized that emotional intelligence and social skills can predict success in business, education, leadership, and even in relationships (Goleman, 1995). In business literature, in particular, it has been suggested that emotional intelligence and social skills, or the lack thereof, are the mediators between what pushes an executive to the top of the ladder and why others go without promotion. Positions of leadership are often viewed as a direct measurement of success (Cooper & Sawaf, 1997; Stein & Book, 2000). While the majority of literature exists within the business world, the following study was designed to investigate whether these same skills exist in high school students and, if so, do they determine which students emerge as leaders?
CHAPTER TWO
Review of Literature

Success and Leadership

Since success is such a subjective term and most people define it differently, success, for research purposes, has been operationally defined as elected leadership. Success/leadership will be discussed in terms of how it can be connected with both emotional intelligence and social skills.

Mayer and Salovey (1997) discussed the fact that general intelligence, “g,” is often attributed with accounting for anywhere from ten to twenty percent of academic and occupational success, which leaves much to be accounted for by other factors. Although studies at that time did not have them completely convinced, they definitely thought there was a possibility that emotional intelligence could account for some of that same success.

Goleman (1995) also addressed emotional intelligence’s possible predictive power and compared it to the relatively accepted fact that IQ can predict life success. He stated that while, at best, IQ can account for twenty percent of the variance, there is still a full eighty percent left unexplained. He then went on to make the extraordinary claim that emotional intelligence could account for as much life success as IQ, or possibly even more. When talking about IQ, emotional intelligence, and what they can add to a
person's worth, he argued that "of the two, emotional intelligence adds far more of the qualities that make us more fully human" (Goleman, 1995, p. 45). According to Mayer, Salovey, and Caruso (2000), Goleman considered emotional intelligence to be capable of predicting success in many of life’s tasks at levels higher than $r = .45$. He also implied that emotional intelligence can ensure “an advantage in any domain in life . . . ." (Goleman, 1995, p. 36). In another of his works, Goleman advanced his notion of the importance of emotional intelligence by stating that it was “The New Yardstick” by which success in business is measured (Goleman, 1998, p. 3).

Cooper and Sawaf (1996) suggested that “emotional intelligence, not IQ or raw brainpower alone, underpins many of the best decisions, the most dynamic and profitable organizations, and the most satisfying and successful lives” (p. xii). They also indicated that a professional with high EQ

picks up - more readily, more deftly, and more quickly than others - the budding conflicts that need resolution, the team and organizational vulnerabilities that need addressing, the gaps to be leaped or filled, the hidden connections that spell opportunity, and the murky, mysterious interactions that seem most likely to prove golden - and profitable. (p. xi)

With these thoughts as a driving force, they have helped to research, norm, and develop an “EQ Map” that allows individuals in management positions to chart their emotional strengths and weaknesses.

Salovey and Mayer (1990) discussed Wasielewski’s theory of charisma that fits their management of others framework and views charismatic leaders as regulating their
followers’ emotions. Furthering this finding, Feldhusen and Pleiss (1994) found a significant correlation between leadership skills and dramatic skill (r = .31) while studying fifty-four kindergarten through twelfth graders. They mentioned that socially, effective leaders can often be described as “skilled in group dynamics, empathic, inspiring, and able to relate well to a wide variety of people” (p. 293), while cognitively, effective leaders are often described as good communicators, leaders in problem-solving and goal structuring activities, as well as able to “evaluate group progress in achieving its goals” (p. 293). They suggested that the discovery of dramatic abilities in leaders may be an explanation for why effective leaders are so effective. In other words, leaders are usually more socially adept or at least viewed in that manner. Thomas Hatch (1997) also suggested that leadership skills were evident in children as early in kindergarten. Through extensive longitudinal observations in a kindergarten classroom, he discovered that many relationship roles had already been established and were easy to identify. After a six-month period, he was able to locate what he labeled the “friends,” “negotiators,” and “leaders” of the group.

George (2000) posited that emotions play a more central role in leadership than originally thought and that emotional intelligence should contribute to the effectiveness of leaders. George stated that emotionally intelligent leaders are usually in tune with their moods and feelings, as well as the impact they could have on interactions with others. Emotionally intelligent leaders are likely to do such things as develop collective goals for their groups, help establish group identities, and encourage flexibility. These individuals are also able to effectively communicate a sense of vision to group members.
These abilities can be summed up into what Epstein (1998) would call constructive thinking, or the ability to solve problems and still keep stress to a minimum. He and others believed that constructive thinking was a key component underlying emotional intelligence and aided in settling disagreements diplomatically, ensuring cooperation by developing positive relationships, and maintaining an optimistic outlook (Elder, 1997; Epstein, 1998; George, 2000).

Mayer and Geher (1996) suggested that the ability to use thought to predict emotions may yield significant social advantages for individuals such as choosing a career that maximizes their abilities, having higher quality and longer lasting intimate relationships, and also better work histories in their jobs. Salovey and Mayer (1990) discussed the fact that emotionally intelligent people do not consider their salary as the most important factor in job satisfaction or as the main indicator of success, rather they are more likely to look at how happy that career will make them. In other words, while emotionally intelligent individuals are more likely to hold leadership positions and be successful, they do not use extrinsic rewards as their gauge. To further the notion, Bachman, Stein, Campbell, and Sitarenios (2000) found that people with higher levels of emotional intelligence exhibited enhanced job performances. Account officers with higher emotional intelligence scores consistently ranked higher in job performance than account officers with lower scores.

Thorndike and Stein (1937) were among the first to compare social intelligence between individuals working in different fields. On the validity of the George Washington Social Intelligence Test, Thorndike and Stein stated that there were “marked
occupational differences” between executives, salesmen, and teachers compared to less socially taxing occupations such as “unskilled laborers” who earned lower scores on the measure (p. 279).

Englund, Levy, Hyson, and Sroufe (2000), when studying forty children on various situational variables at a summer camp, found that counselor ratings of social skills and social competence significantly correlated at the (p > .001) level with a global social competence variable with correlations of r = .67 and r = .70, respectively. Significant Pearson correlations also existed between counselor ratings of social skills and involvement at the (p > .01) level (r = .45), as well as leadership abilities at the (p > .001) level (r = .56). Social competence also earned significant correlations with involvement at the (p > .01) level (r = .48) and leadership at the (p > .001) level (r = .60).

Mehrabian (2000), in studying 107 men and 195 women, found that a significant correlation (r = .18) existed between social competence and career and financial success. He also found that social competence also significantly correlated with overall success (r = .17).

Gilbert (1996) suggested that social intelligence was a crucial component for effective leadership. Upon examining 1,364 junior and senior officers’ abilities in the United States Army, she found that social intelligence had greater predictive power for leader effectiveness than cognitive abilities. Successful leaders were characterized as possessing the ability to perceive social situations accurately, as well as respond in appropriate ways. Effective military leaders were better able to interact with others and
reach organizational goals by utilizing what their environments had to offer (affordance seeking).

Sternberg (1998) also had his own ideas of what makes an individual successful. He coined the term successful intelligence as a means of putting his triarchic theory of intelligence into practice. He described successful intelligence as “that set of mental abilities used to achieve one's goals in life, given a sociocultural context, through adaptation to, selection of, and shaping of environments” (p. 65). His theory is comprised of three interrelated but distinct aspects: analytical, creative, and practical thinking. Although his heavily researched ideas do not necessarily relate directly to emotional intelligence, they are important to note as an example in the literature of researchers desperately searching to find a more socially acceptable mediator for success than general intelligence. His theory, like those of emotional intelligence, offered a certain optimism that theories of general intelligence lack by suggesting that strengths can be maximized and abilities can actually be taught/developed to insure success. While the debate continues on exactly what skills and abilities make a person successful, it is necessary to discuss more fully two of the possible contributing factors: emotional intelligence and social competence.

*Emotional Intelligence*

In 1920, E. L. Thorndike (Thorndike & Stein, 1937) suggested that intelligence could be divided into three components: abstract, mechanical, and social. Abstract intelligence was envisioned as the “ability to understand and manage ideas and abstractions” (p. 275), while mechanical intelligence was viewed as the “ability to
understand and manage the concrete objects of the physical environment” (p. 275), and social intelligence was thought of as the “ability to understand and manage people” (p. 275). According to the author, many tests had been created to measure abstract intelligence, or “g,” and a moderate amount of instruments had attempted to measure mechanical intelligence, but at that time, there were very few tests attempting to measure social intelligence. Thorndike and Stein (1937) suggested that the instruments of the day, such as the George Washington Social Intelligence Test, were not measuring what they purported to measure. They stated that the instruments measured a different construct by either ill-defining the term social, by merely measuring social interest, attitudes, and adjustment, or by simply testing acquired information (facts). In their review, Thorndike and Stein determined that there was a significant amount of overlap between the current tests of social intelligence and tests that examined abstract intelligence. Many theorists contended that verbal ability was the mediating factor that accounted for the overlap, since so many instruments emphasized verbal abilities. The researchers suggested that predominantly verbal tests were highly unlikely to accurately measure social intelligence and that behavioral measures, such as movies and situation tests, were probably better predictors of social intelligence (Thorndike & Stein, 1937).

As far back as 1928, researchers were attempting to distinguish social intelligence as an independent construct. Broom (1928), discussed the Social Intelligence Test by Dr. F.A. Moss and the Thorndike Intelligence Examination, which were administered to 258 beginning college students at San Diego State Teachers' College. The results revealed a correlation coefficient of $r = 0.56$ and $r = 0.64$, after correction for attenuation. The
researchers also found a coefficient of alienation of $r = 0.83$. These findings prompted Broom's conclusion that "the two tests must measure the same variable or variables to some degree at least" (p. 428). He also discussed that it could prove "unprofitable to attempt to discriminate between" social and abstract intelligence because they appeared to be so closely related (Broom, 1928, p. 428).

Walker and Foley (1973) attempted to recap the social intelligence measures of the time and concluded that Cronbach was correct... although many tests such as The George Washington Social Intelligence Test, The Chapin Social Insight Test, The Dymond Rating Tests, the Role-Taking Test, and the Six Factor Tests of Social Intelligence had been developed, after fifty years of sporadic investigation, "social intelligence remain[ed] undefined and unmeasured." (p. 856) They discussed the fact that the belief in social intelligence had outweighed anyone's actual attempt to define and measure the potential construct. However in much of the literature, Thorndike's 1920 definition of social intelligence as "... the ability to understand and manage men and women, boys and girls - to act wisely in human relations" (p. 840) still seemed to be a common definition all researchers reverted to as a reference point (Walker & Foley, 1973). Also included in Thorndike's definition was the ability to "understand others" and "act or behave wisely in relating to others" (p. 842). Thorndike also contributed to the field being the first to suggest that the best probable method of measuring social intelligence was through real life situations from the outset (Walker & Foley, 1973).

Keating (1978) of the Institute of Child Development at the University of Minnesota found little discriminant validity for a social intelligence domain when
examining 117 college students, but offered two possible explanations and suggestions for further research. One was simply that the measures used did not accurately assess what they wanted to assess, but the other possible reason was that the domain needed to be more carefully defined by breaking down the general category into specific skills and abilities. Keating also suggested that paper and pencil measures with forced-choice response options weighed too heavily on academic ability to attribute any true variance to social skills and that situational measures could probably prove more accurate.

As a follow-up to Keating's study, Ford and Tisak (1983) heeded Keating's advice and tried to replicate his methodology, but conceptualized and operationally defined social intelligence from a behavioral effectiveness standpoint. They studied 620 high school students and found that while academic and social intelligence seemed to overlap to some extent, there was evidence of both convergent and discriminant validity. Through factor analysis, social intelligence emerged as a distinct factor, and stepwise multiple regression revealed a greater power for social intelligence variables to predict the behavioral criterion. The results of their study suggested that Keating was correct and by forming a more clear, concise definition of social intelligence, there was a greater chance of finding enough common variance for the construct to be declared a domain (Ford & Tisak, 1983).

As a rebuttal to Keating's 1978 study, Marlowe and Bedell (1982) were also up to the challenge. They found evidence that Keating was correct in that the measures used to assess social intelligence were of great importance and that when less verbal instruments were used, social intelligence emerged as a factor independent of abstract-
verbal intelligence. They also indicated that although the construct had been “masked” in the past by academic abilities, researchers did not necessarily have to abandon paper-and-pencil measures altogether. However, they should remain cognizant of the fact that the nature of the measure can play a major role in the type of results yielded (Marlowe & Bedell, 1982). Although many theorists suggested realistic situations were the ideal manner in which to conduct assessments, Mayer and Geher (1996) cited a quote that recognized that “the self-reported language of feeling is ‘as close as one can come to studying emotional experience’” (p. 92).

Although research on social intelligence was well under way, it was not until around 1990 that emotional intelligence began to come into its own through the contributions of Salovey and Mayer (1990). They indicated that social intelligence had been too broadly defined in the past and overlapped too much with academic abilities and, as a result, posited that emotional intelligence could exist independently as a nonverbal subset of social intelligence. They mentioned that it could also fit into Gardner’s framework and be envisioned as a subset of his personal intelligences. Their early definition considered emotional intelligence to include the “ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (Salovey & Mayer, 1990, p. 189). In these early stages, their theory also suggested that a lack of emotional intelligence could be at the roots of some psychological disorders, such as depression, because individuals without emotional intelligence are unable to plan lives that are emotionally fulfilling.
Mayer and Salovey (1993) began to receive criticism over their chosen terminology and soon had to defend the use of the word intelligence in the same context as emotion, as the two terms had almost been viewed as opposite or contradictory terms in the past. Others complained that the two men were causing more controversy than necessary by linking an already hot-topic (intelligence) with a somewhat neutral subject (emotion). They defended their definition by explaining that when emotional intelligence is stated in terms of a series of mental abilities, it should qualify for discussion as a form of intelligence. They also suggested that emotional intelligence even had more discriminant validity than social intelligence because it did not overlap as greatly with general intelligence. Their evidence to support this claim fell partly in the Comprehension subtest of the WAIS-III that asks what an individual should do upon finding an addressed envelope with a stamp on it. This item is purported to measure verbal abilities when, in fact, they said it was so confounded with the need for social knowledge and even moral reasoning that it was difficult to determine where academic potential left off and social ability began. Emotional intelligence is said to involve the processing of emotional information, not information in general (Mayer & Salovey, 1993).

Mayer and Salovey (1997) revised their definition of emotional intelligence that, to them, seemed too vague and overlooked some important components. Their revised definition of their ability model was as follows:

Emotional intelligence involves the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate
thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth. (p. 10)

This new definition was more comprehensive and included a certain amount of metacognition (thinking about feelings) that was left out of the earlier definition (Mayer & Salovey, 1997).

Mayer, Caruso, and Salovey (1999) took their suggestion that emotional intelligence was a valid independent construct one step further and found that it met the traditional standards to be considered as an intelligence. To be called an intelligence, the authors discussed that emotional intelligence had to meet criteria in three separate areas. First, it had to qualify conceptually by being considered as a set of abilities. Second, it needed to meet correlational criteria as the abilities should be intercorrelated and also have some unique variance. Third, emotional intelligence had to meet developmental criteria by showing that the abilities increased with age. Using the Multifactor Emotional Intelligence Scale (MEIS), they studied 503 adults and 229 adolescents and found that emotional intelligence met all the traditional standards to be referred to as an intelligence (Mayer et al., 1999).

As critics against current research procedures in the field at that time, Davies, Stankov, and Roberts (1998) presented complaints about the claims that emotional intelligence had met the standards of a traditional intelligence. They cited issues that the measurement properties of the tests used (i.e., consensual scoring) yielded low reliabilities and voiced concerns against the use of self-report data. They further indicated that
emotional intelligence seemed to be part of crystallized intelligence rather than its own construct.

Mayer, Salovey, Caruso, and Sitarenios (2001) submitted a rebuttal to their critics. They stated that with the MEIS, they utilized “expert” scoring rather than the consensual scoring used in the past. They restated their definition of emotional intelligence and addressed empirical concerns by indicating that they were in the process of developing a new instrument, the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), which utilizes expert as well as consensual scoring. They also stated that the MEIS and all subsequent instruments exhibited adequate full-scale reliabilities of .90 or greater.

Goleman (1995) presented his thoughts as what would be considered a mixed model of emotional intelligence because it not only incorporated abilities like Mayer and Salovey’s definition but also recognized the notion that things like personality and brain/physiological characteristics may combine with abilities to comprise emotional intelligence (Mayer et al., 2000). His theory included knowing one’s emotions, managing emotions, motivating oneself, recognizing emotions in others, and handling relationships and basically claimed that emotional intelligence could single-handedly cure all of society’s ills (Goleman, 1995).

BarOn and Parker (2000), creator of the BarOn Emotional Quotient Inventories, developed what he referred to as the Bar-On Model of Emotional Intelligence. His model is comprised of five main dimensions such as Intrapersonal, Interpersonal, Adaptability,
Stress Management, and General Mood. Each broad dimension contains subcomponents that are skills and abilities related to that construct. BarOn maintains the following:

Emotionally intelligent people are people who are able to recognize and express their emotions, who possess positive self-regard, and are able to actualize their potential capacities and lead fairly happy lives. They are able to understand the way others feel and are capable of making and maintaining mutually satisfying and responsible interpersonal relationships, without becoming dependent on others. These people are generally optimistic, flexible, realistic, and successful in solving problems and coping with stress, without losing control. (p. 33)

According to his model, he perceived general intelligence to be comprised of both cognitive intelligence (IQ) and emotional intelligence (EQ). BarOn also contended that EQ combines with many other components to determine an individual’s success. In other words . . . EQ alone, although important, does not ensure “success.” The multifactorial model also stresses that it “relates to the potential for performance, rather than performance itself” (BarOn & Parker, 2000, p. 33). The BarOn Emotional Quotient Inventory: Youth Version (BarOn EQi:YV) has served as the backbone measurement behind a series of studies conducted at Western Kentucky University.

In the first of this series, Allen (2000) investigated the relationship between emotional intelligence and cognitive intelligence by administering the WISC-III and the BarOn EQi:YV to sixty children ages nine through twelve years. She discovered that the instruments appeared to measure two separate, yet overlapping, types of intelligences. She also found that emotional intelligence shared discriminant validity with the Picture
Arrangement and Comprehension subtests from the WISC-III, which are two proposed measures of social intelligence. Herring (2001) then attempted to assess whether social intelligence and emotional intelligence were identical or distinct constructs. By administering the Social Skills Rating System (SSRS) and the BarOn EQi:YV to fifty-nine children ages nine through twelve years, she discovered that the scores from the two instruments yielded positive correlations. She then suggested that emotional intelligence might not actually be a new construct after all but rather a refined definition of social intelligence. Her second suggestion, however, was that social intelligence and emotional intelligence were distinct constructs but that the most current measures were not specific enough in the skills they assessed for the constructs to emerge as separate entities.

S. M. Corso (2001) examined the relationship between emotional intelligence and giftedness in a group of adolescents. He administered the BarOn EQi:YV to one hundred twelve through sixteen year-olds and discovered that students identified as gifted evidenced significantly higher Total EQ scores than their same-age counterparts in the standardization sample. The gifted students also scored higher than the average child within the subscales of Adaptability and Stress Management. L. J. Corso (2002) worked with the same group of gifted students, but examined the relationship between emotional intelligence, giftedness, along with social skills. She not only utilized this group’s emotional intelligence findings but also supplemented this data by additionally administering the SSRS student and parent forms. She reported similar emotional intelligence findings as the aforementioned study but also indicated that student self-report ratings of social skills of the gifted population were higher than those for their
same-age peers in the test's standardization sample. She also found that significant positive correlations existed between SSRS Total Scales scores and all BarOn EQi:YV scales. While these findings continued to suggest that the SSRS and EQi:YV were measuring similar yet unique constructs, she implied that the two complemented each other, mentioning that emotional intelligence focuses more on cognition, while social skills focuses more on actual behaviors. While the debate remains inconclusive whether the SSRS or EQi:YV measure identical or separate constructs, this study addressed these topics through leadership and, therefore, considered emotional intelligence and social skills/social competence independently.

**Social Competence**

In many circles, the term social intelligence has been used almost interchangeably with social competence (Keating, 1978). Keating mentioned that using these terms practically as synonyms was most likely due to the fact that many people still had reservations about using the term intelligence so loosely. Herring (2001) also cited a quote from a Ford and Tisak article, which stated "any test which assesses social skills is a measure of social intelligence" (p. 6). She also went on to mention that along with Ford and Tisak, theorists such as Gresham and Elliot, and Thorndike all use the terms interchangeably.

One of the prominent current researchers in the area of social intelligence noted the developmental nature of emotional growth and that it only develops within a social context (Saarni, 1990). In a later work, she also noted that emotional and social
development were inseparable and that cultural influence plays a major role (Saarni, 1999).

Some theorists, such as Goleman, say that social competence can be predicted by a simple marshmallow test by looking at impulse control in young children. He referenced a study by a Stanford University psychologist, Walter Mischel, who gave four-year-olds one marshmallow and told them if they could wait to eat it until he returned from an “errand” that they would promptly receive a second marshmallow. As Goleman breaks this experiment down into a basic battle between id and superego, he states that the results were dramatic and that the children’s reactions to this request (eat the marshmallow or wait) were powerful predictors of their directions and achievements in life. He mentioned that the children who waited to eat the marshmallow were far more socially competent and academically successful upon their high school graduation follow-ups twelve to fourteen years later compared to the impulsive children who were less socially adept and academically successful. Goleman (1995) stated that the ability to control impulses lies at the root of all emotional control. While children’s reactions to this sticky scenario were quite telling of their futures and the actual study yielded phenomenal findings (Mischel & Ebbesen, 1970), this researcher, however, thought there were newer validated ability-based instruments with adequate reliability for measuring such a construct. Behavior rating scales serve as a good example. The advent of these types of instruments allowed researchers to discover similar results without contrived experimental conditions.
In the Social Skills Rating System manual (Gresham & Elliott, 1990), social skills are considered to be “socially acceptable learned behaviors that enable a person to interact effectively with others and to avoid socially unacceptable responses” (p. 1). The authors reported that the development of these types of skills were a major milestone of childhood and that children who fail to acquire these skills may often have negative relationships with both peers and adults. If the lack of these skills goes ignored, children can later exhibit poor academic performance, social adjustment problems, or even psychopathology. The Social Skills Rating System presents basic social skills as being broken down into five subdomains: Cooperation, Assertion, Responsibility, Empathy, and Self-Control. These skills can be remembered by using the acronym CARES (Gresham & Elliott, 1990).

Walker and Foley (1973) mentioned a researcher in the 1940’s named Chapin who used the George Washington Social Intelligence Test and the Social Participation Scale to conclude that “social participation in the organized groups and institutions of the community, is itself a rough measure of social intelligence . . .” (Walker & Foley, 1973, p. 843). In Thorndike and Stein’s review (1937), another researcher named Hunt was recognized as sharing these sentiments and found a significant correlation between scores on the George Washington Social Intelligence Test and the number of extracurricular activities in which college freshmen chose to participate. He found that students who were engaged in four or more extracurricular activities obtained a median score of 116 on the measure while students who did not join any groups earned a median score of 99. The authors also discussed another study with graduate students that did not yield
significant correlations between scores on the same test and number of extracurricular activities, but mentioned that there was some question regarding the applicability of the data (Thorndike & Stein, 1937). The notion that social involvement in itself is a measure of social/emotional intelligence remains a basic premise underlying participant selection in the current study.

This researcher’s study uses what Linda Rose-Krasnor (1997) would call a social skills approach to social competence. She stated that this method has a number of weaknesses, which included, but are not limited to, “focusing on single behaviors” rather than the functioning of an entire system, disagreements between criteria, and the consideration of social competence as an ability/trait instead of an emerging skill. However, she also identified some strengths by indicating that checklist-type surveys were easy to devise and provided quick assistance for intervention planning. While this method possessed some drawbacks, convenience, availability, and adequate reliabilities made behavior rating scales the obvious selection for the present study.

Purpose of the Present Study

While the majority of studies of emotional intelligence have been with adults in the business world, the following study is unique in that a high school population was utilized. The purpose for this present study was to investigate the relationships between leadership, emotional intelligence, and social skills by examining the following hypotheses. First, students identified as leaders will have higher than chance emotional intelligence scores than the standardization sample of the BarOn Emotional Quotient Inventory: Youth Version (EQi:YV). Second, there will be significant differences
between the mean emotional intelligence scores of students identified as Leaders, Joiners of groups, and Non-Joiners of groups. Third, emotional intelligence will increase with age, which should be indicated by significant mean score differences between age levels (i.e. positive correlation between EQ and age). Finally, teacher ratings of social skills for student Leaders will be higher than for Non-Joiners of groups.

Leaders were defined as those students holding a recognized leadership position in any of the clubs/organizations/activities of the school. Joiners were identified as students simply listed on the rosters as members of the school's clubs/organization/activities, but not holding a leadership position. Non-Joiners were recognized as students not listed as participants on any of the club/organization/activity rosters.
CHAPTER THREE

Method

Participants

High school students (31 male and 89 female, N = 120) ages fourteen to seventeen years old from grades nine through eleven participated in the study. Fifty-six percent of female participants invited to participate in the study chose to do so, while only twenty-eight percent of males selected chose to participate. All participants were from counties in western and south central Kentucky. The study’s sample consisted of a predominantly Caucasian population, which was representative of the population of the region. Consent was obtained from school officials to use their high school students in the study. Ninth through eleventh grade class rosters, as well as club/organization/activity rosters were obtained from the guidance counselors of participating schools. Students were then selected by a random numbers generator and placed into one of three groups (Leaders, Joiners, or Non-Joiners) by analyzing club/organization/activity rosters to verify their status within the groups. When accessible, yearbooks and computer information programs were also utilized. The English teacher of each participant was also asked to participate.

Materials

The BarOn Emotional Quotient Inventory: Youth Version (BarOn EQi:YV)
(BarOn & Parker, 2000), which is a paper-and-pencil measure of emotional intelligence, was developed for use with children ages seven to eighteen years old. Children are asked to respond to sixty statements about their thoughts, feelings, and actions on a four-point Likert-type scale. Example statements include “I can easily use different ways of solving problems.” and “I usually know how other people are feeling.” From the EQi:YV, an overall emotional intelligence score can be obtained, which is the summation of four additional factor scores (Intrapersonal, Adaptability, Stress Management, and Interpersonal). The instrument is based on standard scores with a mean of 100 and a standard deviation of 15.

The BarOn EQi:YV’s normative sample included 9,172 children and adolescents in regular education classes. Internal reliability coefficients for the instrument ranged from .84 to .90 for ages 13 to 18. Females were found to score statistically higher than males in Total EQ scales and in some of the factor scores also. The three-week test-retest reliability coefficient for the Total EQ score was .89.

According to Gresham and Elliott (1990), The Social Skills Rating System (SSRS) is a paper-and-pencil measure of social competence for children ranging from preschool to twelfth grade with forms for parents, teachers, and students. In the current study, the secondary level student self-report form and teacher form were utilized. Students are asked to respond to thirty-nine items that indicate how they would respond in general social situations such as “I make friends easily.” and “I am active in school activities such as sports or clubs.” Teachers are asked to respond to fifty-one items that
indicate their perceptions of students' reactions to certain general social situations such as “Initiates conversations with peers” and “Gets angry easily.” The Student Form yields an overall Social Skills score and factors that score down into subscales such as Cooperation, Assertion, Empathy and Self-Control. The Teacher Form yields an overall Social Skills score as well, but breaks down only into the subscales of Caring, Assertion, and Self-Control. The instrument utilized a normative population of 4,170 children both in regular education classes and mainstreamed special education. The Teacher Form also measures teachers’ perceptions of students’ problem behaviors broken down into Internalizing problems and Externalizing problems and students’ general overall Academic Competence. The instrument is based on standard scores with a mean of 100 and a standard deviation of 15.

The estimated internal consistency reliability coefficient for the Secondary Level Teacher Form Total Scale was reported to be .93, while the internal consistency reliability coefficient was reported to be .83 on the Total Scale for the Secondary Level Student Form. Test-retest reliability was obtained by having all participants in the elementary standardization sample complete the instrument again four weeks after its original completion. Test-retest reliability coefficients were reported to be .85 and .68 for the Teacher Form and Student Form Total Scales, respectively (Gresham & Elliott, 1990).
Procedure

Upon selection for the study, informed consent documents were sent home with each student. Student participants with signed informed documents were presented with Minor Assent participation documents and asked to complete a BarOn EQi:YV form and an SSRS secondary level student self-report form. The participants were administered both instruments in a group setting, which took approximately 40 minutes. At the beginning of each session, the researcher introduced herself to the participants and informed them they would be assisting her in a study by providing honest answers to questions about their thoughts, feelings, and actions. Students were reminded that there were no right or wrong answers and that they could withdraw from the study at any time.

Leaders were defined as those students holding a recognized leadership position in any of the clubs/organizations/activities of the school. Joiners were identified as students simply listed on the rosters as members of the school’s clubs/organization/activities but not holding a leadership position. Non-Joiners were recognized as students not listed as participants on any of the clubs/organization/activities’ rosters.

Teacher participants were asked to complete a secondary level teacher form of the SSRS for any students in their English classes who were chosen to participate in the study and returned their informed consent documents. Teachers were given approximately a week to complete their portion and were also asked to complete an informed consent document.
CHAPTER FOUR
Results and Discussion

Overview of Analyses

Multiple t-tests were conducted to examine the first hypothesis, which stated that students identified as leaders would have higher than chance emotional intelligence scores than the standardization sample of the BarOn Emotional Quotient Inventory: Youth Version (EQi:YV). Since the EQi:YV Examiner’s Manual separated age and sex into different brackets and reported means and standard deviations of raw scores, this sample’s EQi:YV raw scores were used as well. Since multiple comparisons were conducted, Bonferroni corrections were applied to minimize the possibility of committing a Type I error. Five one-way ANOVA’s were used to examine the second hypothesis, which predicted that there would be significant differences between the mean emotional intelligence scores of students identified as Leaders, Joiners of groups, and Non-Joiners of groups. Again, Bonferroni corrections were applied due to the utilization of multiple planned comparisons. Tukey Honestly Significant Difference post-hoc analyses were conducted to further investigate any significant findings. Pearson Product Moment Correlations (Pearson r) were used to explore the third hypothesis, which stated emotional intelligence would increase with age. A one-way ANOVA was also used to analyze the fourth hypothesis, which predicted teacher ratings of social skills for student Leaders would be higher than for Non-Joiners of groups. Tukey Honestly Significant
Difference post-hoc analyses were again applied to further investigate significant findings. Finally, due to unequal sample sizes, eight leaders were randomly eliminated from one school and correlation matrices were established to investigate possible relationships. This alteration allowed for the analysis of a pure Leader group with equal sample sizes from each participating school.

Means and standard deviations for each of the Emotional Quotient Factors, as well as Total Emotional Quotient scores, categorized by leadership status, are presented in Table 1. Means and standard deviations for Social Skills Rating System (SSRS) teacher and student self-ratings, categorized by leadership status, are presented in Table 2.

Leaders were identified as students holding a leadership position in any club/organization/activity. Joiners were identified as students listed as members in any club/organization/activity, and Non-Joiners were students identified as having no club/organization/activity affiliation.

A total of 56 student Leaders, 39 Joiners, and 24 Non-Joiners participated in the study by completing the EQi:YV and the SSRS Student Self-Report Form. For each of those students, their English teachers were asked to complete an SSRS Teacher Form. A total of 33 SSRS teacher forms were returned for student Leaders, 26 SSRS teacher forms were returned for Joiners, while only 11 SSRS teacher forms were returned for Non-Joiners.
For Hypothesis 1, male and female leader data were analyzed separately, due to the presentation of norms in the EQi:YV manual. However, all other comparisons utilized the combination of male and female data.
Table 1

**Means and Standard Deviations for EQ Factors and Leadership Status**

<table>
<thead>
<tr>
<th></th>
<th>Intrapersonal</th>
<th>Interpersonal</th>
<th>Adaptability</th>
<th>Stress Management</th>
<th>Total EQ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Mean</strong></td>
<td><strong>SD</strong></td>
<td><strong>Mean</strong></td>
<td><strong>SD</strong></td>
<td><strong>Mean</strong></td>
</tr>
<tr>
<td>Leaders (N = 56)</td>
<td>106.23</td>
<td>15.19</td>
<td>108.70</td>
<td>11.10 A</td>
<td>105.95</td>
</tr>
<tr>
<td>Joiners (N = 39)</td>
<td>101.49</td>
<td>13.90</td>
<td>103.33</td>
<td>12.47 C</td>
<td>100.28</td>
</tr>
<tr>
<td>Non-Joiners (N = 24)</td>
<td>103.54</td>
<td>13.98</td>
<td>92.46</td>
<td>12.92</td>
<td>91.25</td>
</tr>
</tbody>
</table>

**Note.**
- A = Significant difference between the means of Leaders and Non-Joiners.
- B = Significant difference between the means of Leaders and Joiners.
- C = Significant difference between the means of Joiners and Non-Joiners.
Table 2

Means and Standard Deviations for Social Skills Rating System and Leadership Status

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers Ratings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leaders</td>
<td>33</td>
<td>115.79</td>
</tr>
<tr>
<td>Joiners</td>
<td>26</td>
<td>103.39</td>
</tr>
<tr>
<td>Non-Joiners</td>
<td>11</td>
<td>92.82</td>
</tr>
<tr>
<td>Student Self Ratings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leaders</td>
<td>56</td>
<td>117.18</td>
</tr>
<tr>
<td>Joiners</td>
<td>39</td>
<td>109.80</td>
</tr>
<tr>
<td>Non-Joiners</td>
<td>24</td>
<td>96.71</td>
</tr>
</tbody>
</table>

Note.  A= Significant difference between the means of Leaders and Non-Joiners.

  B = Significant difference between the means of Leaders and Joiners.

Hypothesis 1

The first hypothesis stated that students identified as leaders would have significantly higher emotional intelligence scores than the standardization sample of the BarOn Emotional Quotient Inventory: Youth Version (BarOn EQi: YV). The null hypothesis was rejected for females but not for males. Raw score means categorized by age and sex were used in analysis to enable a comparison of this study’s population
means to the means of the standardization sample, as this is the manner in which data was
presented in the manual.

Table 3

Female Leaders’ Raw Mean Scores and EQi:YV Standardization Sample

<table>
<thead>
<tr>
<th>EQi:YV Factors</th>
<th>13-15 years</th>
<th></th>
<th>13-15 year norms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>t-test</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>17.06</td>
<td>3.52</td>
<td>2.97*</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>43.33</td>
<td>3.71</td>
<td>4.49*</td>
</tr>
<tr>
<td>Adaptability</td>
<td>35.83</td>
<td>6.15</td>
<td>5.14*</td>
</tr>
<tr>
<td>Stress Management</td>
<td>33.22</td>
<td>4.45</td>
<td>-.22</td>
</tr>
<tr>
<td>EQ Total</td>
<td>63.83</td>
<td>6.85</td>
<td>4.41*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EQi:YV Factors</th>
<th>16-18 years</th>
<th></th>
<th>16-18 year norms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>t-test</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>17.36</td>
<td>4.90</td>
<td>2.26</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>43.50</td>
<td>2.87</td>
<td>5.05*</td>
</tr>
<tr>
<td>Adaptability</td>
<td>37.39</td>
<td>6.37</td>
<td>7.41*</td>
</tr>
<tr>
<td>Stress Management</td>
<td>30.36</td>
<td>3.90</td>
<td>-4.96*</td>
</tr>
<tr>
<td>EQ Total</td>
<td>63.18</td>
<td>5.93</td>
<td>4.53*</td>
</tr>
</tbody>
</table>

13-15 years of age (n = 18)
16-18 years of age (n = 28)

Note. *p < .05. Bonferroni Corrections applied.
Females in the thirteen to fifteen year-old group evidenced higher mean scores compared to their same-age peers in the standardization sample within the factors of Intrapersonal, \( t(18) = 2.97, p < .05 \); Interpersonal, \( t(18) = 4.49, p < .05 \); Adaptability, \( t(18) = 5.14, p < .05 \); and EQ Total, \( t(18) = 4.41, p < .05 \). Females in the sixteen to eighteen year-old age group obtained higher scores than chance compared to same-age standardization sample counterparts within the factors of Interpersonal, \( t(28) = 5.05, p < .05 \); Adaptability, \( t(28) = 7.41, p < .05 \); and EQ Total, \( t(28) = 4.53, p < .05 \). This same group of females also evidenced lower scores than chance compared to the standardization sample within the area of Stress Management, \( t(28) = -4.96, p < .05 \) (see Table 3).

Comparisons could not be conducted for the thirteen to fifteen year-old male group. There was only one male leader within this category. Within the sixteen to eighteen year-old male group (\( N = 9 \)), there was only one factor with a higher score than the standardization sample – Adaptability, \( t(9) = 3.45, p < .05 \). For all comparisons, Bonferroni corrections were applied to minimize the possibility of committing a Type I Error (see Table 4).
Table 4

Male Leaders’ Raw Mean Scores and EQi:YV Standardization Sample

<table>
<thead>
<tr>
<th>EQi:YV Factors</th>
<th>16-18 years</th>
<th>16-18 year norms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>15.44</td>
<td>3.09</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>41.44</td>
<td>3.47</td>
</tr>
<tr>
<td>Adaptability</td>
<td>35.78</td>
<td>5.95</td>
</tr>
<tr>
<td>Stress Management</td>
<td>31.78</td>
<td>3.56</td>
</tr>
<tr>
<td>EQ Total</td>
<td>61.11</td>
<td>5.01</td>
</tr>
</tbody>
</table>

16-18 years of age (n = 9)

Note. *p < .05. Bonferroni Corrections applied.

Hypothesis 2

The second hypothesis stated that there would be significant differences between the mean emotional intelligence scores of students identified as Leaders, Joiners of the Leaders’ groups, and Non-Joiners of groups. Results indicated that the null hypothesis should be rejected. Five one-way ANOVA’s revealed support for the original hypothesis. Significant relationships between overall EQ scores and Leadership F (2, 116) = 11.25, p = .0001, as well as between three of the four EQ factors and Leadership were noted. A relationship existed between Interpersonal skills and Leadership F (2, 116) = 15.58, p = .0001, between Adaptability scores and Leadership F (2, 116) = 9.15, p = .0001, and
between Stress Management and Leadership $F(2, 116) = 5.02, p = .008$. No significant relationship was found between Intrapersonal skills and Leadership.

Further post-hoc analysis indicated that within the overall EQ scores, Leaders ($M = 111.161, SD = 12.769$) had higher scores than did Joiners ($M = 104.795, SD = 12.105, p = .047$), as well as higher scores than Non-Joiners ($M = 96.667, SD = 13.532, p = .0001$). It was also noted that Joiners obtained higher EQ total scores than Non-Joiners ($p = .040$).

When analyzing the EQ Factor - Interpersonal Skills, Leaders ($M = 108.70, SD = 11.10$) received higher scores than Non-Joiners ($M = 92.46, SD = 12.92, p = .0001$). The Joiners' scores ($M = 103.33, SD = 12.47$) were also higher than for those of Non-Joiners ($p = .002$). Within the EQ Factor - Adaptability, Leaders ($M = 105.95, SD = 13.27$) obtained higher scores than Non-Joiners ($M = 91.25, SD = 12.93, p = .0001$), while Joiners ($M = 100.28, SD = 15.99$) also obtained higher scores than Non-Joiners ($p = .041$). Within the EQ Factor - Stress Management, Leaders ($M = 107.88, SD = 12.51$) obtained higher scores than did Non-Joiners ($M = 97.58, SD = 14.83, p = .006$) (see Table 5).
Table 5

Analysis of Variance for Leadership Status on EQi:YV (N=119)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQi:YV Factors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpersonal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between</td>
<td>2</td>
<td>15.58</td>
<td>.0001</td>
<td>.21</td>
</tr>
<tr>
<td>Within</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between</td>
<td>2</td>
<td>9.15</td>
<td>.0001</td>
<td>.14</td>
</tr>
<tr>
<td>Within</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between</td>
<td>2</td>
<td>5.02</td>
<td>.008</td>
<td>.08</td>
</tr>
<tr>
<td>Within</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EQ Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between</td>
<td>2</td>
<td>11.25</td>
<td>.0001</td>
<td>.16</td>
</tr>
<tr>
<td>Within</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 3

The third hypothesis stated that emotional intelligence would increase with age, which should be indicated by positive correlations between EQ scores and age levels. When comparing EQi:YV standard scores and age, no significant correlations were discovered. Correlations ranged from $r = -0.111$ to $r = 0.087$, but none were significant using a two-tailed test at the .05 level.

Hypothesis 4

The fourth and final hypothesis stated that teacher ratings of social skills ($N = 70$) for student Leaders would be higher than for Non-Joiners of groups. Results lent support to this hypothesis in that a one-way ANOVA revealed a relationship greater than chance between Teacher SSRS ratings and leadership status, $F(2, 67) = 12.75$, $p = .0001$. Further post-hoc analysis indicated that Teacher SSRS ratings for Leaders ($M = 115.79$, $SD = 11.16$) were higher than those for Non-Joiners ($M = 92.82$, $SD = 20.52$, $p = .0001$). Although it was not directly predicted, it was also found that Teacher Social Skills Rating System (SSRS) ratings for Leaders were higher than those for Joiners of groups ($M = 103.39$, $SD = 14.35$, $p = .004$). There was no difference between Teacher SSRS ratings for Joiners when compared to Non-Joiners (see Table 6).
Table 6

Analysis of Variance for Leadership Status on SSRS (N = 70)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Skills Rating System-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher Ratings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between</td>
<td>2</td>
<td>12.747</td>
<td>.0001</td>
<td>.028</td>
</tr>
<tr>
<td>Within</td>
<td>67</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional Data Analysis

Due to unequal sample sizes for leaders, nine leaders were randomly eliminated from one school’s Leader data set to establish equal sample sizes. A correlation matrix was then developed to investigate the intercorrelations between sex, age, and EQ scores for a pure Leader group. A negative relationship was revealed between Sex and Interpersonal factor (r = -.367), while a negative relationship was discovered between Age and Stress Management (r = -.301). Positive relationships were noted between Interpersonal (r = .732), Intrapersonal (r = .587), Adaptability (r = .661), and Stress Management (r = .632) and the EQ Total. Finally, a positive relationship was indicated between the Interpersonal factor and the Stress Management factor (r = .517) (see Table 7).
A correlation matrix was also developed to investigate the intercorrelations between sex, age, Teacher SSRS ratings, and student self-report SSRS ratings for a pure leader group; however, no significant relationships were found (see Table 8).
Table 8

Intercorrelations Between Sex, Age, and Social Skills Rating System Scores from Teachers and Student Self-Report for Leaders

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n = 48)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Sex</td>
<td>-----</td>
<td>.226</td>
<td>.217</td>
<td>.048</td>
</tr>
<tr>
<td>2. Age</td>
<td>-----</td>
<td>.125</td>
<td>.065</td>
<td></td>
</tr>
<tr>
<td>3. SSRS Teacher Rating</td>
<td>-----</td>
<td></td>
<td>.057</td>
<td></td>
</tr>
<tr>
<td>4. SSRS Student Self Rating</td>
<td></td>
<td></td>
<td></td>
<td>-----</td>
</tr>
</tbody>
</table>

Note. Sex: 1 = Female, 2 = Male; Age: 1 = 13-15, 2 = 16-18.

*p < .05, two-tailed.

**Discussion**

Do student Leaders have higher emotional intelligence than the average child in the standardization sample of the BarOn EQi:YV? Secondly, do mean emotional intelligence score differences exist between the performances of student Leaders, Joiners of groups, and Non-Joiners of groups? Thirdly, does emotional intelligence increase with age? Finally, do teachers perceive student Leaders to possess more social skills than Non-Joiners of groups?
The null hypothesis was rejected for females but not for males when examining the first hypothesis. Female Leaders in both age groups perceived themselves to possess more overall emotional intelligence than their same-age counterparts in the standardization sample. In addition, females in the 13 to 15 year-old group rated themselves as having higher Intrapersonal, Interpersonal, and Adaptability scores than the standardization sample, while 16 to 18 year-old females rated themselves higher within the factors of Interpersonal and Adaptability. These findings were consistent with what many before this study have stated, in that leaders exhibit more emotional intelligence than non-leaders (Goleman, 1998). Males aged 16 to 18 only rated themselves with higher scores than the standardization sample in Adaptability. This outcome was consistent with the findings of BarOn and Parker (2000) in the EQi:YV normative population. If any one area had to be significant within this study, this area should be the one for males, as it was the only factor in the normative population in which males emerged with higher scores than females. The lack of evidence toward the first hypothesis for males could also simply be due to the extremely small number of male leaders participating in the study (n = 10). It is also important to note that females ages 16 through 18 rated themselves as lower within the Stress Management factor than the standardization sample. This rating could be due to the developmental nature of emotional intelligence, in that this ability could be one that is not fully developed until later in life (Mayer et al., 1999). The fact that hypothesis one held true for females but not for males was not anticipated in that no sex differences were noted in any of the other four studies in this series (Allen, 2000; L. J. Corso, 2002; S. M. Corso, 2001; Herring,
Stein and Book (2000) in working with adult populations and the Emotional Quotient Inventory (EQ-i), stated that men and women tended to exhibit similar overall EQ scores, but that North American women's Interpersonal skills were slightly above that of men. They went on to note, however, that in every area women seemed to display a strength, men appeared to possess a "counterbalancing strength elsewhere" (Stein & Book, 2000, p. 6).

The null hypothesis was also rejected for the second hypothesis. Relationships greater than chance existed between the mean score differences of overall EQ scores and Leadership status. Relationships also existed between the EQ factors of Interpersonal, Adaptability, Stress Management, and Leadership status. No relationship was evident between the Intrapersonal factor and Leadership status. The fact that no significant relationship emerged between the Intrapersonal factor and Leadership status could be due to the possibility that, of all the EQ domains, this is not one uniquely essential for leadership. The means of the Leaders, Joiners, and Non-Joiners groups, with respect to the Intrapersonal factor, were all within the average range. Since emotional intelligence is perceived as developmental, it could be that this area has yet to fully develop (Mayer et al., 1999). It could be that Intrapersonal skills, while still a component of EQ, had some unique contributions. In the additional data analyses conducted with the Leader group, the Intrapersonal factor correlated only with the Total EQ score and none of the other factors. In almost a step-wise fashion, it was discovered that Leaders possessed overall higher emotional intelligence scores than Joiners of groups, as well as Non-Joiners of groups. While this step-wise difference was not evident within every domain, Leaders
consistently demonstrated significantly higher scores within the factors of Interpersonal, Adaptability, and Stress Management than Non-Joiners. Joiners also differentiated themselves by rating themselves with higher scores than Non-Joiners within the Interpersonal and Adaptability factors. This differentiation is consistent with Walker and Foley’s (1973) statement that participation in itself can be considered a rough indicator of social intelligence.

A difference was not noted when analyzing the third hypothesis. No significant correlations were evident when comparing EQi:YV standard scores and age. Since emotional intelligence is viewed as a developmental construct that increases with age, it was thought that the same finding would emerge within this population (Mayer et al., 1999; Saarni, 1990). However, the restricted range of ages within this sample may have been a limitation. Also, few age differences were noted within the standardization sample (BarOn & Parker, 2000).

Additional data analyses were conducted with a pure Leader group to investigate intercorrelations between, sex, age, emotional intelligence, and leadership. The negative relationship between sex and the interpersonal factor was consistent with BarOn and Parker’s (2000) findings. Within the normative population, females consistently exhibited higher interpersonal scores than males. The negative relationship between age and stress management ratings was inconsistent with BarOn and Parker’s (2000) findings, in that no significant age differences were reported for this subscale in the normative sample. In this sample, however, it appears that the older Leaders felt less adept at managing stressful situations when compared to younger Leaders. The greater than
chance positive correlations between all four EQ factors and the EQ Total lend support to the construct validity of the measure, in that all areas seem to be measuring similar skills. Finally, the positive relationship between the Interpersonal and Stress Management factors of Leaders lends support to the definitions of emotional intelligence that include the management of self and others (BarOn & Parker, 2000; Goleman, 1995; Mayer & Salovey, 1997). It may be that the Interpersonal and Stress Management factors are particular strengths for individuals in leadership positions.

The fourth hypothesis predicted that teacher ratings of social skills for student Leaders would be higher than for Non-Joiners of groups. A relationship greater than chance was evident between teacher SSRS ratings and leadership levels. Further post-hoc analysis indicated that teacher social skill ratings for student Leaders were higher than ratings for their same-age peers who were not joiners of groups. Although it was not directly predicted, it was also discovered that teacher social skill ratings for those same Leaders were also significantly higher than ratings for Joiners of groups. These findings were consistent with the frequent suggestions that social competence can complement leadership (Goleman, 1998; Hensel, 1991). These results are also consistent with Englund et al.s (2000) findings of positive correlations between counselor ratings of children’s social skills and social involvement.

Additional data analyses were conducted with a pure Leader group to assess intercorrelations between sex, age, teacher SSRS ratings, and student self-report SSRS ratings; however, no significant relationships were found. The fact no sex differences were noted in respect to social skills was consistent with the findings of two previous
studies in this series (L. J. Corso, 2002; Herring 2001). It was unexpected, however, that no significant relationships would exist between teacher SSRS and student SSRS ratings, since they assess similar skills predominantly in the educational setting (Gresham & Elliot, 1990).

Due to a lack of research within the area of emotional intelligence utilizing adolescent populations, this study was primarily exploratory in nature. While the majority of hypotheses were based on "hunches," the findings hold great relevance for the educational arena. Since Leaders perceived themselves to possess more emotional intelligence and were perceived by teachers to exhibit more social skills than Joiners and Non-Joiners of groups, this perception could have an impact for all educators. Whether it be due to innate ability, cultural differences, or life experiences, these student leaders consistently emerged on top. Since social and emotional skills are developmental and programs have been designed to increase them, it would be beneficial to implement skill-based programs in our schools (Herring, 2001). Stein and Book (2000) also noted that improving emotional intelligence is a proactive measure against misbehavior and that increasing the EQ of adolescent populations may help prevent school violence.

Some methodological limitations should be taken into account when interpreting results. First, there were very few males participating in the study compared to females, which may restrict the generalizability of the results. This situation is especially true in the analysis of the first hypothesis. Since the categorization into age, as well as gender groups was required, analysis was severely limited, as hypothesis one could not be analyzed for thirteen to fifteen year-old male leaders due to the fact that only one
participated in the study. Also, generalizability may be hampered due to the fact that all
the participants were from essentially the same part of the Kentucky. While their
responses were scored with respect to national norms, the effect culture played on their
life experiences is just unknown. Third, since this study relied on self-report data, social
desirability may have affected the results. Although the teachers’ input should partially
offset this effect, there still may have been a “chicken or egg” dilemma involved. Are
student leaders actually more socially adept than their same-age counterparts or is it more
of a self-fulfilling prophecy in that students chose to respond to their teachers’
perceptions?
CHAPTER FIVE

Summary

Until recently, it was impossible to assess the emotional intelligence of children and adolescents. With the advent of the BarOn Emotional Quotient Inventory: Youth Version (BarOn EQi:YV), this assessment is now possible (BarOn & Parker, 2000). By sampling 120 fourteen through seventeen year-olds from south-central Kentucky, the relationship between emotional intelligence, social skills, and success (leadership) was investigated. Student participants were identified as Leaders, Joiners, or Non-Joiners of groups and asked to complete a BarOn EQi:YV, as well as the Social Skills Rating System (SSRS) Student Self-Report Form. Each student’s teacher was also asked to complete an SSRS Teacher Form.

The null hypothesis was rejected for three of the four hypotheses. The first hypothesis stated that student Leaders would exhibit higher emotional intelligence scores than their same-age peers in the BarOn EQi:YV normative population. This prediction held true for both 13 to 15 year-old female Leaders and 16 to 18 year-old female Leaders for overall Total EQ, Interpersonal, and Adaptability. Female leaders ages 13 to 15 also perceived themselves to display more Intrapersonal skills than the average student their age. Male Leaders ages 16 to 18 only perceived themselves as more adept than their same-age standardization sample counterparts within the area of Adaptability. The
confirmation of Hypothesis 1 for females and lack thereof for males could, however, simply be an artifact of sample size, as there was a relatively small number of males that participated in the study. The second hypothesis stated that there would be statistically significant differences between the mean emotional intelligence scores of students identified as Leaders, Joiners, and Non-Joiners of groups. Support was lent toward this hypothesis in that relationships greater than chance were revealed between overall EQ scores and Leadership, as well as between three of the EQ factors (Interpersonal, Adaptability, and Stress Management) and Leadership. Leader's scores were consistently ranked above those of Non-Joiners within the above-mentioned factors. Leaders also evidenced higher scores than Joiners on Total EQ. Joiners also differentiated themselves from Non-Joiners by demonstrating higher scores within the factors of Total EQ, Interpersonal, and Adaptability.

The third hypothesis stated that since emotional intelligence is a developmental construct, it should increase with age. Evidence should have been observed through positive correlations between EQ scores and age levels; however this was not the case, as none of the correlations were significant. The fourth hypothesis stated that teacher social skills ratings for student Leaders would be significantly higher than for Non-Joiners of groups. This hypothesis was also supported. Teachers perceived student Leaders to display significantly more social skills than Non-Joiners of groups. They perceived those same Leaders to exhibit more social skills than Joiners of groups as well.
Future Research

The current study examined the relationship between emotional intelligence, social competence, and success (leadership position). Due to the present findings of sex differences with respect to the first hypothesis, it could prove beneficial to collect more data on Leaders to further investigate gender effects. The collection of equal samples of both males and females is advised. Do males and females tend to have specific strengths to target, as the findings suggested, or were these findings simply an artifact of sample size? Stein and Book (2000) noted that when the EQi was administered to adults, male and female strengths and weaknesses seemed to complement, or offset, each other.

Since emotional intelligence is considered developmental in nature, future researchers should attempt to obtain larger sample sizes that encompass a wider range of ages. The EQi:YV was designed to assess the emotional intelligence of children ages seven through eighteen. The collection of participants across the age spectrum of the scale could lend support to the developmental nature of the construct, as this study was limited by a restricted age range.

Since the predictive validity of intelligence and achievement tests has helped them earn credibility, conducting longitudinal studies or follow-up studies to present research on emotional intelligence could aid in establishing greater credibility. It would also help to further the notion of emotional intelligence as a developmental construct, as the same participants could be assessed at later ages to monitor progress. The assessment and longitudinal study of the emotional intelligence, as well as social skills, of young student leaders would also help solve the "chicken or egg" argument to determine if they
were actually leaders when they entered school or if they just began to live up to their teachers' perceptions.

Since many critics of emotional intelligence take issue with present assessment techniques such as self-report and non-objective scoring criteria (Davies et al., 1998), it could prove beneficial to develop EQi:YV rating scales for parent and teacher raters, as is the case with other behavior rating scales such as the SSRS. This addition could lend credibility to findings and offer more possibilities for comparisons.

This researcher also agrees with the suggestion of Allen (2000) and S. M. Corso (2001) in that it would be interesting to conduct future research within the special education population. Although the present study did not assess students in special education classes, it, along with several other studies in this series, directly assessed students with specific strengths such as giftedness and leadership (L. Corso, 2002; S. M. Corso, 2001). These students were perceived to function at levels above or equal to that of their peers. It would be interesting and potentially the most beneficial of all studies thus far to assess those students with identified weaknesses. Due to current suggestions that emotional intelligence can be taught, targeting areas of emotional strength and weakness could greatly assist the development of individual education plans, particularly for those students with emotional and behavioral disabilities (Herring, 2001).
References


APPENDIX A

INFORMED CONSENT DOCUMENT

Informed Consent for Parents/Guardians

Project Title: Emotional Intelligence, Social Competence, and Success
Investigator: Amanda Tyson, Psychology Department; (270) 745-4422 or (270) 846-0255

Thesis Chair: William Pfohl (270) 745-4419

Your child is being asked to participate in a project conducted through Western Kentucky University. The University requires that you give your signed agreement to participate in this project.

A basic explanation of the project is written below. Please read this explanation and call me or Dr. Pfohl with any questions you may have.

If you then decide to allow your child to participate in the project, please sign on the last page of this form. You will keep a copy of this form.

The purpose of this project is to evaluate emotional intelligence, social competence, and success (as identified through leadership) in high school students. Student participants from the 9th, 10th, and 11th grades will be identified on the basis of group membership, non-group membership, or elected leadership positions held in those groups (i.e. Beta Club, athletic teams). The research procedure involves students taking two paper and pencil questionnaires about themselves by answering questions about their feelings. There are no right or wrong answers. Also, one of your child’s teachers will be asked to complete a paper and pencil questionnaire about his/her social skills. Students will be administered the surveys in a small group setting, which should take no more than forty minutes.

Depending on scheduling, your child may miss part of a class period; however great lengths will be taken to minimize your child’s out-of-class time. Your child may become bored during this procedure; a brief break will be permitted, if requested. I understand that it is not possible to identify all potential risks in a research procedure, but I believe that reasonable safeguards have been taken to minimize both known and potential unknown risks.

The measure of emotional intelligence is a relatively new research area, and refers to a person’s ability to effectively identify and use their emotions accurately. Studies such as this will help to broaden the knowledge base on this topic and lead to a greater
understanding of the relationship between emotional intelligence, social competence, and success (leadership).

All data collected during this project will remain confidential. Data will be entered using an identification number. Individual participants will be not identified at any time when results are reported.

Refusal to participate in this study will have no effect on any future services you or your child may be entitled to from the University. Anyone who agrees to participate in this voluntary study is free to withdraw at any time with no penalty.

*I understand also that it is not possible to identify all potential risks in an experimental procedure, and I believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.*

Student's Full Name: ____________________________________________

Name of Parent/Legal Guardian                                      Phone Number (optional)

Signature of Parent/Legal Guardian                                 Date

Witness                                                             Date

THE DATED APPROVAL ON THIS CONSENT FORM INDICATES THAT THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY THE WESTERN KENTUCKY UNIVERSITY HUMAN SUBJECTS REVIEW BOARD TELEPHONE: (270) 745-4652
APPENDIX B

INFORMED CONSENT DOCUMENT

Informed Consent for Teachers

Project Title: Emotional Intelligence, Social Competence, and Success
Investigator: Amanda Tyson, Psychology Department; (270) 745-4422 or (270) 846-0255

Thesis Chair: William Pfohl (270) 745-4419

Your are being asked to participate in a project conducted through Western Kentucky University.
The University requires that you give your signed agreement to participate in this project.

A basic explanation of the project is written below. Please read this explanation and discuss with the researcher any questions you may have.

If you then decide to participate in the project, please sign on the last page of this form. You will keep a copy of this form.

The purpose of this project is to evaluate emotional intelligence, social competence, and success (as identified through leadership) in high school students. Student participants from the 9th, 10th, and 11th grades will be identified on the basis of group membership, non-group membership, or elected leadership positions held in those groups (i.e. Beta Club, athletic teams). The research procedure involves students taking both the BarOn Emotional Quotient Inventory: Youth Version and the Social Skills Rating System: Student Form. You will be asked to complete a Social Skills Rating System: Teacher Form, which should take no more than ten to fifteen minutes per student.

Depending on scheduling, your students may miss part of a class period; however great lengths will be taken to minimize your students' out-of-class time. I understand that it is not possible to identify all potential risks in a research procedure, and I believe that reasonable safeguards have been taken to minimize both known and potential unknown risks.

The measure of emotional intelligence is a relatively new research area. Studies such as this will help to broaden the knowledge base on this topic and lead to a greater understanding of the relationship between emotional intelligence, social competence, and success (leadership).
(consent form continued)

All data collected during this project will remain confidential. Data will be entered using an identification number. Individual participants will be not identified at any time when results are reported.

Refusal to participate in this voluntary study will have no effect on any future services you may be entitled to from the University. Anyone who agrees to participate in this study is free to withdraw from the study at any time with no penalty.

I understand also that it is not possible to identify all potential risks in an experimental procedure, and I believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.

_________________________________________       Date
Signature of Participant

_________________________________________       Date
Witness

THE DATED APPROVAL ON THIS CONSENT FORM INDICATES THAT THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY THE WESTERN KENTUCKY UNIVERSITY HUMAN SUBJECTS REVIEW BOARD

TELEPHONE:    (270) 745-4652
APPENDIX C

INFORMED CONSENT DOCUMENT
FOR RESEARCH INVOLVING MINORS

Minor Assent Form

I, ____________________________, understand that my parents/guardians have given permission for me to participate in a study concerning Emotional Intelligence, Social Competence, and Success under the direction of Amanda Tyson, a graduate student in the Psychology Department at Western Kentucky University.

My participation in this project is voluntary, and I have been told that I may stop my participation in this study at any time. If I choose not to participate, it will not affect my grades in any way. The researcher will answer all questions honestly and carefully.

Signature __________________________ Date ________________