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Investigating Emotional Intelligence in Children: Exploring its Relationship to Cognitive Intelligence

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INVESTIGATING EMOTIONAL INTELLIGENCE
IN CHILDREN:
EXPLORING ITS RELATIONSHIP TO COGNITIVE INTELLIGENCE

A Thesis
Presented to
The Faculty of the Department of Psychology
Western Kentucky University
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In Partial Fulfillment
Of the Requirements for the Degree
Educational Specialist in School Psychology

By
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August 2000

INVESTIGATING EMOTIONAL INTELLIGENCE IN CHILDREN:
EXPLORING ITS RELATIONSHIP TO COGNITIVE INTELLIGENCE

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The phrase emotional intelligence was made popular in the mainstream culture by Daniel Goleman's book Emotional Intelligence. Goleman's book focuses mainly on aspects of emotional intelligence in adults, as does most of the literature that exists concerning emotional intelligence. The little empirical research that exists in the field of emotional intelligence has been conducted primarily with adults. With the advent of the BarOn Emotional Quotient Inventory: Youth Version, it has become possible to measure this construct in children. In the current study, sixty children ages nine to twelve were administered the BarOn EQ-i:YV and the Wechsler Intelligence Scale for Children – Third Edition. The Full Scale IQ standard score, Performance IQ standard score, Verbal IQ standard score, Picture Arrangement subtest scale score, and Comprehension subtest scale scores were compared to the BarOn EQ-i:YV Total EQ scores to determine the relationship between them. Small, significant positive correlations were found between the Total EQ standard score and Full Scale IQ standard score, Total EQ score and Performance IQ standard score, Total EQ standard score and Picture Arrangement subtest scale score, and Total EQ standard score and Comprehension subtest scale score. All hypotheses were confirmed. A positive and statistically significant correlation exists

between emotional intelligence and cognitive intelligence. The relationship was small enough; however, that it can be concluded that the BarOn EQ-i:YV and the WISC-III were measuring two different but overlapping types of intelligence.

CHAPTER ONE

What is success? Webster defines it as “a favorable or satisfactory outcome of result”. Successful intelligence has been used by Sternberg to define a “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” (1998, p. 65). Successful intelligence encompasses analytical, creative, and practical thinking (Sternberg, 1998). What makes one successful? In academia, intelligence or one’s IQ is widely accepted to be a predictor of success in school. As for success in life . . . Goleman (1995) would argue that one’s emotional intelligence would be such a predictor. Are the two intelligences linked? The concept of IQ has been in existence for many years. Wechsler, Spearman, Sternberg, Catell, and Horn have widely accepted definitions of intelligence. All have, as part of their definitions, included verbal skills, abstract reasoning, perceptual ability and processing speed. Numerous tests are available that provide a measure one’s IQ. On the other hand, emotional intelligence is a relatively new psychological concept involving children.

What is emotional intelligence? How is it measured? Emotional intelligence in children currently exists in theory only. There is some literature to support its existence in adults, to this writer’s knowledge, little empirical research has been conducted to test the theory with children. Numerous individuals have written books and journal articles about emotional intelligence, but it has dealt primarily with adults in the business world.

First, what is emotional intelligence? Salovey and Mayer (1990) defined emotional intelligence as the “subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to

use this information to guide one's thinking and actions" (p. 189). Their definition has since evolved. Because their first definition lacked a thought process about these feelings, Mayer and Salovey have revised their definition to include thinking about emotions (Mayer and Sluyter, 1997, chap. 1).

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).

From Mayer and Salovey's (1990) original work sprang Daniel Goleman's 1995 best seller, Emotional Intelligence. Goleman, a psychologist and writer for *The New York Times*, is not a scientific researcher in the field of emotional intelligence. However, he seems to have brought the term emotional intelligence to the forefront of American society. Goleman defined emotional intelligence as incorporating motivation and persistence when faced with difficulties, impulse control, and delay of gratification, mood regulation, and empathy.

In 1997, Israeli psychologist Reuven Bar-On operationally defined emotional intelligence and published the BarOn Emotional Quotient Inventory. This measure, appears to be the first test to assess the construct of emotional intelligence. For his adult measure, BarOn defines emotional intelligence as "capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures and directly affect one's overall psychological well-being" (Mirsky, 1997, p. 25). The BarOn Emotional Quotient Inventory assesses five factors: intrapersonal, interpersonal, adaptability, stress management, and general mood. Just three years later in 2000, BarOn and James D. A. Parker published the BarOn Emotional Quotient Inventory: Youth Version (EQ-I:YV). The youth version of the test uses a four factor model which yields an overall emotional intelligence quotient. Interpersonal,

intrapersonal, adaptability, and stress management are the factors that encompass emotional intelligence on this assessment instrument. The general mood factor from the adult scale was not used in the youth version.

Mayer and Salovey (1990), Goleman (1995), and BarOn (2000) have all eloquently, however, differently, defined emotional intelligence. BarOn has even created a measure of emotional intelligence for use with both adults and children. However, the question still remains, does emotional intelligence really exist in children? Is emotional intelligence part of what makes up general intelligence or is emotional intelligence its own separate construct? Does emotional intelligence have discriminant validity that has not been found with measures of social intelligence? In addition, is there a relationship between emotional intelligence and cognitive IQ?

Past research investigated aspects of emotional intelligence or social intelligence such as identifying emotions or feelings in others with adults. However, until now there has been no standardized instrument to measure children's emotional quotient. The advent of the BarOn EQ-i:YV allows for empirical research to be conducted using a total emotional quotient construct not just facets of it. The current study investigated the relationship between one's emotional intelligence and cognitive intelligence using children. Past research has focused on adults. BarOn and Parker (1999) using the BarOn EQ-i found a positive relationship between cognitive IQ and emotional intelligence in adults; however, the correlation was not significant.

How does one become emotionally intelligent? Mayer and Salovey (as cited in Salovey and Sluyter, 1997) believed that emotional intelligence is learned. Parents help their children “identify and label emotions, to respect their feelings, and to begin to connect them to social situations” (p. 19). Emotional intelligence can also be learned from models such as that provided in a teacher-student interaction as well as in the

general curriculum. For example, when reading, students often discuss how a character is feeling, the character's emotions when dealing with various situations, and how the character resolved these problems (Salovey & Sluyter, 1997). Mayer and Salovey seemed to have advocated a kind of "social learning theory" for developing emotional intelligence.

By the same token, Goleman also wrote that one's family is important in developing emotional intelligence (1995). In his book, Goleman attributed parenting style to contributing to a child's emotional intelligence or lack thereof. Additionally, Goleman reviewed how the limbic system and amygdala play large parts in how one reacts emotionally. In this way, Goleman's view of whether or not one is emotionally intelligent relied somewhat on innate factors.

The purpose of the present study was to investigate the following hypotheses. Is emotional intelligence part of what makes up general intelligence or is emotional intelligence its own separate construct? Does emotional intelligence have discriminant validity with measures of social intelligence? In addition, the present study will also examine the relationship, if any, between emotional intelligence and cognitive IQ. This study will be unique in that it will be one of the first to investigate emotional intelligence in children using a standardized instrument that yields an emotional quotient. Secondly, other studies have used only adults in their research of emotional intelligence.

CHAPTER TWO

Review of Literature

Researchers have differing views on what it means to be intelligent. These views have focused on what is happening inside an individual's head that effects how he or she processes information and what results as a function of that process. Sternberg believed intelligent behavior included "purposive adaptation to, selection of, and shaping of real – world environments relevant to one's life" (1984, p. 285-286). Included in this definition would be adaptability and atomization of information processing. In order to clarify his definition and to enable others to put his theory into practical terms, Sternberg further defined successful intelligence as a " set of mental abilities used to achieve one's goals in life, give a sociocultural context, through adaptation to, selection of, and shaping of environments" (1998, p. 65). Successful intelligence involves three types of thinking which include analytical, creative, and practical.

Guilford (1967) generated a three dimensional model that visually represented the complexity of intellect and human thinking. His model compromises three major dimensions - operation, products, and contents. These three dimensions are further broken down to yield as many as one hundred twenty cells or distinct mental abilities. Rather than a single index of IQ, Guilford's model proposes several structural components of intellect. Included in Guilford's model is behavioral content identified by social intelligence of understanding oneself and others.

Similar to Guilford's theory, Howard Gardner (1999) also proposed a model of multiple intelligences. Rather than focusing strictly on verbal or linguistic skills, which are so often emphasized in most modern IQ tests, Gardner stipulated nine types of intelligence. Outlined in Gardner's multiple intelligences are linguistic, musical, logical-

mathematical, visual-spatial, bodily kinesthetic, interpersonal, intrapersonal, naturalist, and existential intelligences.

A consistent theme within these theories involves some aspect of social intelligence - understanding oneself and others around them. Both tend to involve some aspect of emotions. Emotions often determine how people will react along with their cognitive knowledge. To think that affect and feelings can be separated from intellect would be to shortchange a powerful motivator. Thus, the concept of emotional intelligence has emerged.

Salovey and Mayer (1990) seem to have first coined the phrase emotional intelligence. Emotional intelligence was used by Salovey and Mayer to categorize human attributes such as empathy, self-awareness, and emotional control. Emotional intelligence is a type of social intelligence that involves "the ability to identify one's own and other's emotions, the regulation of emotion in the self and others, and the utilization of emotional content in problem solving" (Mayer & Salovey, 1993, p. 433).

Salovey and Mayer first definition of emotional intelligence involved identifying and regulating emotions and using that information to solve problems. This definition did not involve thinking about the emotions and feelings involved. For this reason, Mayer and Salovey revised their definition of what it means to be emotionally intelligent. Mayer and Salovey's current definition states that

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" (as cited in Salovey and Sluyter, 1997, p. 10, chap. 1).

In addition to defining what emotional intelligence is, Mayer and Salovey (1997) discussed how one becomes emotionally intelligent. Beginning in infancy, children learn

to identify emotions in themselves and in others and to differentiate among them. As one gets older, an individual is better able to monitor internal feelings.

Additionally, individuals learn that emotions serve to signal a change in a person or the environment. For example, two children may be playing happily together. Both are coloring in a book when all of a sudden, both children want to use the red crayon. One child picks up the red crayon and begins to color. The other child starts to cry. The crying is a signal of a change in the environment. Both children are no longer happy. The child without the red crayon is sad and angry. The child with the crayon uses this signal and decides what to do.

After a child has learned to recognize emotions, he or she can then learn to label the emotions and identify their similarities and differences (Mayer and Salovey, 1997). Additionally, parents help the child associate emotions with various situations that the child may have experienced. Perspective taking is also important. Being able to put oneself in the same situation and imagining how others might feel is essential. Finally, children must learn to regulate and control their emotions.

Parents serve as models and provide strategies which enable the child. They are essential to developing emotional intelligence and are involved in each phase of the development mentioned above. Mayer and Salovey (1997) stated that emotional intelligence begins “in the home with good parent - child interaction” (p. 19). Additionally, interactions between children and educators, as well as the school curriculum can enhance emotional intelligence (Mayer and Salovey, 1997). Mayer and Salovey stated that by discussing character development, the characters’ feelings, and their reactions to these feelings, educators are fostering emotional intelligence. Furthermore, through the discussions of values systems esteemed by various cultures

discussed within the context of a history text, civics lesson, or religion class, one learns “about the value systems within which emotional responsivity occurs.” (1997, p. 20)

In his book Emotional Intelligence, Daniel Goleman (1995) suggests the notion of emotional intelligence conceptualized as early as the 1920's and 1930's. E. L. Thorndike (1920) suggested in Harper's Magazine that the ability to understand others and "act wisely in human relations" was indeed part of a person's IQ, as noted by Goleman. An emotionally intelligent person, according to Goleman, would have good social skills. He or she would be able to get along well with others, is often a leader in group work, and is good at managing relationships. This emotionally intelligent person is able to control his or her impulses and is able to delay gratification. This individual is empathic and motivated to reach his or her goals despite setbacks. Managing feelings and bad moods would be characteristic of this individual. One who sees the proverbial glass as half full would probably be considered emotionally intelligent. Furthermore, Goleman discussed the role of the limbic system, amygdala, and neocortex in reacting to emotional stimuli. He stated that the brain functioning of the amygdala and neocortex are at the “heart of emotional intelligence”.

The development of emotionally intelligent characteristics, according to Goleman's book, begins in infancy. Infants and younger children often mimic other children crying or try to comfort each other. Children learn to trust their caregivers when caregivers respond to cries of hunger or discomfort. From their parents, children learn how to feel about themselves and “how others will react to our feelings; how to think about these feelings and what choices we have in reacting; how to read and express hopes and fears” (1995, p. 190). Children learn these things directly from their parents and indirectly through behavior modeled by their parents in dealing with their own personal relationships. Additionally, parenting style, the kind of discipline used, and parent's marital relationships influence a child's emotional intelligence (Goleman, 1995).

Others have elaborated on the definition of emotional intelligence. Elder (1997) defined emotional intelligence as a measure of the "degree to which an individual successfully or unsuccessfully applies sound judgment and reasoning to situations in the process of determining an emotional or feeling responses to those situations" (p. 40). She also further stated that emotional intelligence is interrelated with cognitive intelligence. Elder describes a triad of mind functions - thoughts, feelings, and desires. The three functions, although theoretically distinct have an intimate, dynamic, as well as reciprocal relationship in which each factor of the triad influences another. It is only through theory, she states, that each part of the triad can be considered distinct. Once again, emotional aspects are hypothesized to be an important part of cognitive intelligence.

The Bar-On emotional intelligence measure defined emotional intelligence as "capabilities, competencies and skills that influence one's ability to succeed in coping with environmental demands and pressures and directly affect one's overall psychological well being" (Mirsky, 1997, p. 25). Bar-On's emotional intelligence measure is based on a four-factor model that includes intrapersonal, interpersonal, adaptability, and stress management skills. The Bar-On model of emotional intelligence refers to three dimensions of intelligence which include emotional, personal, and social dimensions. According to this model, "emotional intelligence comprises abilities related to understanding oneself and others, relating to people, adapting to changing environmental demands, and managing emotions" (Bar-On & Parker, 2000, p. 1). The EQ-i:YV asks individuals to rate on a four point Likert scale how he/she feels, thinks, or acts most of the time and in most places. Questions ask things such as "It is hard to control my anger," "It is hard for me to wait my turn," "I can talk easily about my feelings," and "I am happy." From these questions, an overall emotional intelligence score is assessed.

Many measures have been found to be reliable and valid for assessing cognitive IQ. Wechsler defined IQ as a "capacity of the individual to act purposefully, to think

rationally, and to deal effectively with his or her environment" (1994, p. 3). Each subtest on the Wechsler Intelligence Scale for Children – Third Edition measures a different aspect of general intelligence and varying verbal and performance abilities. Additional components of general intelligence have included speed (Horn, 1989) and processing "breadth" (Mayer & Salovey, 1993).

While many theories of intelligence have ignored components such as emotions, others have made it an essential part of their intelligence theories (see Guilford, 1967 and Gardner, 1983). Mayer and Geher (1996) subdivided social intelligence into emotional and motivational intelligence. To define emotional intelligence these researchers drew from Salovey and Mayer's 1990 definition that included the ability to recognize and judge emotion and to use that information to decide how to act. Mayer and Geher believed emotional intelligence better defines or can substitute for social intelligence. Because g-theories have excluded an emotional component, Mayer and Salovey (1993) have suggested that emotional intelligence has a greater potential for discriminant validity. Past research has failed to find discriminant validity between cognitive IQ and social intelligence (Broom, 1928; Guilford, & DeMille, 1965; Keating, 1978; O'Sullivan, Thorndike & Stein, 1937; Thorndike, 1937). Social intelligence has yet to be distinguished as a unitary trait (Chronbach, 1960; Chlopan, McCain, Carbonell, & Hagan, 1985; Ford & Tisak, 1983; Thorndike & Stein, 1937; Walker & Forley, 1973). Social intelligence has incorporated verbal, as well as visuospatial ability and abstract reasoning, which may be one reason why difficulties arise with establishing discriminant validity (Salovey & Mayer, 1993).

If one examines questions such as "What is the thing to do if you find a letter with a stamp on it?" drawn from the Wechsler Adult Intelligence Scale, it appears that a correct answer not only reflects verbal intelligence but also knowledge of social mores (Mayer & Salovey, 1993). However, Mayer and Salovey believed this question does not

encompass emotional intelligence because it lacks processing of emotion. It does however, have a social intelligence component. For this reason, they hypothesized that emotional intelligence has a better chance of having discriminant validity against an intelligence scale that measures g.

In summary, differing definitions of cognitive intelligence exist. A common thread between them is an aspect of social intelligence which includes understanding oneself and others around them. From the social intelligence construct came emotional intelligence. As with social intelligence, there are differing views of what it means to be emotionally intelligence. Nevertheless, these definitions all involve identifying emotions and how one reacts in response to the emotions. While social intelligence has yet to be separated from cognitive intelligence, emotional intelligence has the possibility of setting itself apart from cognitive intelligence as it may apply to children.

CHAPTER THREE

Method

Participants

Sixty elementary school students (30 male and 30 female) ages nine to twelve years old participated. In the study, there were seventeen nine year olds, eleven ten year olds, twenty-one eleven year olds, and eight twelve year olds. All of the children participated in the regular education program.

Materials

The Wechsler Intelligence Scale for Children-Third Edition (WISC-III) was used to assess cognitive intelligence. Optional subtests were not administered. The WISC-III is a battery of subtests that evaluate cognitive intellectual abilities. The WISC-III consists of two subscales, the Verbal Scale and the Performance Scale. Included in these subscales are thirteen subtests.

The Verbal Scale measures language expression, comprehension, listening, and the ability to apply these skills to solve problems. The examiner gave the questions orally and the child gave an oral response. The Performance Scale assesses nonverbal problem solving perceptual organization, speed, and visual-motor proficiency. Tasks include puzzles, analysis of pictures, imitating designs with blocks, and copying, all under time limits.

Several scores were obtained from the WISC-III. Scale scores (Verbal and Performance IQ standard scores) are the summary measures of verbal and performance skills, and the Full Scale IQ is an index of general intellectual functioning. These scores are stated as standard scores with a mean of 100 and standard deviation of 15. Of the subtest scores, two were of importance in this research: Picture Arrangement and

Comprehension subtest scores. The Picture Arrangement subtest measures an individual's ability to logically arrange pictures so they tell a story that makes sense. The Comprehension subtest requires an individual to answer questions posed verbally. Answering these questions requires logical reasoning and factual knowledge as well as knowledge of social mores. These two subtests were chosen because they measure social intelligence. According to Wechsler, the Comprehension subtest requires a child to comprehend and evaluate social situations while the Picture Completion subtest provides a measure of social judgement and knowledge of convention standards of behavior.

The BarOn EQ-i:YV is a paper and pencil measure of emotional intelligence for children ages seven to eighteen years. Children answered sixty questions on a four point Likert type scale. Participants were asked to rate how they think, feel, and act most of the time and in most places in response to sentences. Statements such as "I get too upset about things" and "I make friends easily" are included. Results of the EQ-i:YV yield an overall emotional intelligence score. Four factor scores of Intrapersonal, Adaptability, Stress Management, and Interpersonal are also reported. Standard score yield a mean of 100 and standard deviation of 15.

The EQ:i-YV included a normative sample of 9,172 children consisting of 4,625 males and 4,547 females, aged 7-18 years. All of the respondents in the normative sample were from regular education classes. Internal reliability coefficients for the Total EQ score ranged from .81 to .88 for males and .86 to .90 for females. Three week test-retest data yielded a reliability coefficient of .89 for the Total EQ score.

Procedure

All participants completed the BarOn EQ-i:YV and were administered the WISC-III. Half of the participants responded to the EQ-i:YV first and then were administered the WISC-III, while the other half were administered the WISC-III followed by the EQ-

i:YV. Each child was given an opportunity to take a five minute break between testing. Each measure was given only once.

At the beginning of each testing session, the examiner introduced herself to the participant and his or her parent. The participant and the parent were given a brief description of what the child would be asked to do. The child was told that he or she would be working some puzzles, making things with blocks, defining vocabulary words, and answering questions about things they have learned in school. They were also told they would be answering some questions about how they think, feel, or act in certain situations. Each child was allowed to choose a prize at the end of the sessions. Prizes included stickers, erasers, and pencils.

Statistical Procedures

Pearson product-moment correlations were obtained and analyzed with SPSS 8.0 statistical package. Post-hoc procedures were used to analyze additional findings.

CHAPTER FOUR

Results and Discussion

Results

A Pearson product-moment correlation was used to calculate the following results. A correlation was found between the Total EQ standard score and Full Scale IQ standard score, $r(60) = .259, p < .05$. Additionally, a correlation was noted between the Total EQ standard score and Performance IQ standard score, $r(60) = .289, p < .05$. Upon further analysis within the subtests of the WISC-III, a correlation was noted between the Total EQ standard score and Picture arrangement subtest scaled score, $r(60) = .327, p < .01$; as well as with the Comprehension subtests scaled score on the WISC-III, $r(60) = .278, p < .05$. See Table 1 for means and standard deviations of each score and Table 2 for Pearson product-moment correlations. Post-hoc analysis of correlations between the remaining WISC-III subtests and the Total EQ score can be found in Table 3. No sex differences were found with correlations or means.

All hypotheses were confirmed. There is a significant positive relationship between emotional intelligence and cognitive intelligence. Furthermore, because the relationship between the WISC-III scores and the Total EQ scores were so small, one can conclude that the WISC-III and the BarOn EQ-i:YV are measuring two different kinds of intelligences. By the same token, it appears that emotional intelligence does have discriminant validity with measures of social intelligence as demonstrated with the Picture Arrangement and Comprehension subtests.

Table 1

Means and Standard Deviations for Total EQ Scores and WISC-III Scores

Test	Mean	Standard Deviation
Total EQ	104.773	15.762
Verbal IQ	107.100	17.018
Performance IQ	104.100	15.979
Full Scale IQ	106.050	16.245
Picture Arrangement	11.183	3.321
Comprehension	12.183	3.529

Note. N=60 (Males = 30, Females = 30)

Table 2

Correlations between Total EQ score and WISC-III scores

	Total EQ score
WISC-III	
Verbal IQ score	.188
Performance IQ score	.289*
Full Scale IQ score	.259*
Picture Arrangement subtest score	.327**
Comprehension subtest score	.278*

Note. * $p < .05$. ** $p < .01$, one tail.

Table 3

Correlations between WISC-III subtest scores and Total EQ score

	Total EQ score
<u>WISC-III subtest scale scores</u>	
Information	.108
Similarities	-.065
Arithmetic	.150
Vocabulary	.065
Picture Completion	.219*
Coding	.331**
Block Design	.164
Object Assembly	.124

Note. * $p < .05$. ** $p < .01$, one tail.

Discussion

This researcher wanted to answer the following research question, “Does emotional intelligence exist as its own entity in children or is it simply a part of cognitive intelligence?” Based on the results of this study, it appears that it does exist as its own separate construct. When two intelligences are highly correlated, they are said to measure the same thing (Salovey & Sluyter, 1997). Because of the small but significant correlation between Full Scale IQ and Total EQ score, it seems that both tests are measuring different, but related, intelligences in children. Secondly, Mayer and Salovey (1993) were correct in assuming that one could establish discriminant validity of emotional intelligence against an intelligence scale that measures *g*. Finally, a significant

positive correlation, albeit small, was found between Total EQ score and WISC-III Full Scale IQ, Performance IQ, Picture Arrangement subtest score, and Comprehension subtest score. On the other hand, a significant relationship was not documented between Total EQ score and WISC-III Verbal IQ score. However, an individual's standard score of 51 for the Total EQ score was noted using a scatterplot (SPSS 8.0). When correlations were again run without using this individual's scores, a significant small positive relationship was found between the Total EQ score and WISC-III Verbal IQ; $r(59) = .240, p < .05$.

One difference noted between the current study and the data in the BarOn EQ:I-YV is sex differences. On the Total EQ score, BarOn and Parker (2000) note that females score significantly higher than males. In a post hoc analysis, this researcher failed to find any sex differences between males and females on the Total EQ score.

To summarize, in children, emotional intelligence is a related but separate construct. It has discriminant validity with the WISC-III Picture Arrangement and Comprehension subtests, two measures of social intelligence. Finally, there is a small, significant positive relationship between emotional intelligence and cognitive IQ as measured by the BarOn EQ:i-VY and the WISC-III.

CHAPTER FIVE

Summary

Until now, emotional intelligence in children existed only as a theory. BarOn was the first to operationalize his definition of emotional intelligence and to test this theory with adults and children. With the advent of the BarOn EQ-i:YV, it has now become possible to see if emotional intelligence really existed or if it was just part of cognitive intelligence in children. By sampling sixty nine to twelve year olds' emotional and cognitive intelligence, it appears that indeed emotional intelligence is a distinct kind intelligence. When determining the relationship between cognitive intelligence as measured by the WISC-III and some of the factors that encompass it, namely Picture Arrangement and Comprehension subtests, and emotional intelligence, several things are noted. First, a significant small positive correlation between emotional intelligence and the Full Scale IQ was noted. Secondly, a significant small positive correlation was noted between emotional intelligence and Performance IQ but not the Verbal IQ. Finally, when comparing emotional intelligence with the Picture Arrangement and Comprehension subtests, measures of social intelligence, a significant small positive relationship was again noted.

Now that we know emotional intelligence is confirmed in children, the possibilities for future research are endless. Since this researcher used a sample of regular education students, it would be important to do similar studies with children in a special education population. Since traditional IQ tests so often do not accurately measure mentally handicapped children's life potential, perhaps tests of emotional intelligence would be more helpful in planning for these children's unique needs. If emotional intelligence truly predicts success in life, fostering emotional intelligence in

these children would be extremely beneficial. On that same note, long term studies tracking elementary aged children into their high school years, and adult life and the job world, would surely be an accurate measure of life success.

Furthermore, research with both children younger and older than the sample used here should be done to see if the hypotheses investigated in this study holds true for that population. Also, future researchers may wish to consider using other measures of cognitive intelligence as a comparison to the BarOn EQ-i:YV.

Finally, what can parents and teachers do to influence a child's emotional intelligence? As a parent, acknowledge the child's feelings. Do not ignore them. Use the opportunity to talk with your child. Provide strategies to deal with upset or hurt feelings. Finally, respect the child's feelings. Console your child and be happy for him or her as well. Both parents and teachers can help children identify and label their emotions. When the child is unhappy or upset, discuss what happened, how the child feels, and possible ways to deal with those feeling. Likewise, point out events in movies, television, books, and everyday life that elicit emotions. By doing so, parents and educators aid children in becoming more aware of their feelings, feelings of others, and can recognize how others have reacted to the same emotional situations. Also, use perspective taking. Have the child think about how he or she may feel in the same situation and what he or she would do. Finally, understand and think more about your own emotions and feelings. Assessing the way you react to pleasant and unpleasant emotions will help both a parent and an educator become better teachers of emotional intelligence.

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APPENDIX

Informed Consent

EMOTIONAL INTELLIGENCE AND IQ

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

The investigator will explain to you in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation. You may ask her any questions you have to help you understand the project. A basic explanation is written below. Please read this explanation and discuss with the researcher any questions you may have.

If you decide to participate in the project, please sign on the bottom of this form in the presence of the person who explained the project to you. You should be given a copy of this form to keep.

The purpose of this experiment is to evaluate cognitive IQ and emotional intelligence. The research procedure involves the child taking the Wechsler Intelligence Scale for Children-Third Edition and the BarOn Emotional Intelligence Inventory. Both the parent and the child will complete the Social Skills Rating Scale forms.

You have the option of receiving feedback on your child's WISC-III IQ scores. Please mark on the attached sheet whether or not you wish to receive your child's results. You have the option of written or oral feedback. If you later change your mind, you may contact either Jennifer Allen or Shannon Chesser at the phone numbers listed below.

The measure of emotional intelligence is a new research area. These studies will help contribute to the knowledge base on this topic and lend to a greater understanding of this concept.

All data collected during the experiment will remain anonymous. Data will be entered using an identification number. Individual participants will not be identified at any time.

Refusal to participate in this 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.

Your child may become fatigued or bored during this procedure. However, breaks will be given to your child to alleviate this. I understand 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.

On the basis of the above statements, I agree to let my child participate in this project.

Name of Child

Date

Signature of Parent or Guardian

Date

Witness

Date

M. Jennifer Allen, Researcher
Department of Psychology, 270-692-6664

Shannon Chesser, Researcher
Department of Psychology, 502-252-8839

Dr. William Pfohl, University Supervisor
Department of Psychology, 270-745-4419

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

FEEDBACK OPTIONS

_____ YES, I wish to receive feedback on my child's WISC-III scores.

If YES, I would like to receive them in a written form _____ OR an oral form _____.

_____ NO, I do not wish to receive feedback on my child's WISC-III scores. I understand that if I later change my mind I may contact Jennifer Allen or Shannon Chesser at 270-692-6664 or 502-525-8839.

Child's Name

Signature of Parent or Guardian

Date

Address _____

Phone Number _____

Child Assent Form

CHILD ASSENT FORM

I, _____ understand that my parents have given permission for me to take part in a project under the direction of Jennifer Allen and Shannon Chesser. I understand that I am going to answer questions about things I have learned at school and answer questions about how I might think, feel, or act in certain situations.

I am taking part because I want to. I have been told that I can stop at any time I want to and nothing will happen to me if I want to stop.

Signature

Date