Do Measures of Emotional Intelligence Predict Social Acceptability?

Sunny Marie Windingstad
University of Tennessee - Knoxville

To the Graduate Council:

I am submitting herewith a dissertation written by Sunny Marie Windingstad entitled "Do Measures of Emotional Intelligence Predict Social Acceptability?." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Education.

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We have read this dissertation and recommend its acceptance:

Sherry Mee Bell, Sherry Bain, Patrick Dunn

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A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Sunny Marie Windingstad
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ABSTRACT

The concurrent and predictive utility of three measures of Emotional Intelligence (EI) were determined by administering the Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version (MSCEIT:YV; Mayer, Salovey, & Caruso, in press), the Emotional Quotient Inventory: Youth Version (EQ-i:YV; Bar-On, 2000), the Emotional Aptitude teacher rating scale of the UNIT: Gifted Screening Scale (UNIT: GSS; McCallum & Bracken, in press) and a sociometric measure to 102 third, fourth, and fifth grade students in two rural elementary schools in the Southeastern United States and one elementary school in the North Central United States. Pearson product-moment correlation coefficients of scales across instruments ranged from .20 (p < . 05) to .39 (p < .01) Results from dependent t tests showed no significant difference between overall mean scores of the EQ-i:YV and MSCEIT:YV (p <.05) but did show a significant difference between the UNIT:GSS Emotional Aptitude Scale scores of male and female participants (p < .01. Only the UNIT:GSS EAS predicted results of the sociometric in stepwise multiple regression, though the relationship was modest (R^2 = .07, p < .01). Apparently, the three instruments assess EI somewhat independently and relate to a peer-based sociometric only modestly.

ii

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Because the construct of Emotional Intelligence (EI) is increasingly popular among educators, the literature is beginning to address the link between EI and classroom academic and social performance (e.g., Barchard, 2003; Cobb & Mayer, 2000; Liff, 2003; Parker, et. al, 2004). However, the relationship between current operationalizations of EI and real-world indicators of emotional and social success remains uncertain. Consequently, the purpose of this study is to determine the relationship among three separate measures of EI and their relative power to predict students' ratings of classmates' actual social skills in the classroom as assessed by a sociometric measure.

What is Emotional Intelligence?

The most widely acknowledged definition of EI is probably that of Mayer and Salovey, perhaps due to its mention in Goleman's (2005) popular book, *Emotional Intelligence: Why It Can Matter More Than IQ*. Goleman reports that his model of EI is based on Mayer and Salovey's "meld[ed]" with "decades of research on modeling the competencies that set star performers apart from average" (p. xiii) in organizational settings, thus creating a model that measures more than simply the "intelligence" of emotions. However, the fundamental definition he gives later in his book is simply that of Mayer and Salovey. This model identifies EI as the ability to recognize and manage one's own emotions and relationships in addition to acknowledging the emotions of others. But there are other definitions and models, and importantly, there are multiple operationalizations of these models. According to Petrides, Sangrareau, Furnhan, and Frederickson (2006), "a growing number of researchers in the field of

emotional intelligence believe that the choice of measurement method has a defining impact on the operationalization of the construct" (p. 537).

Operationalizations based on the four-dimensional model of Mayer and Salovey (1995) and five-dimensional model of Bar-On (1997) are available to practitioners, and were used in this study. In addition, this study uses the Emotional Aptitude Scale from McCallum and Bracken's (in press) Universal Nonverbal Intelligence Test Gifted Screening Scale. McCallum and Bracken use Mayer and Salovey's model mentioned above. While all both models share some characteristics, they contain unique components as well.

George (2000) and others, including Mayer and Salovey (1995) themselves, label the four dimensions of their model as (a) perception of emotion, (b) integration and assimilation of emotion, (c) knowledge about emotions, and (d) management of emotions. Perception of emotions describes the ability to identify emotion in others and self. Integration and assimilation of emotion allow the individual to use emotions to inform thinking, though this stage can involve the generation of new emotions as well. Knowledge about emotions, on the other hand, allows one to understand the relationships among emotions and how emotional states can and do change. Finally, management of emotions involves the ability to manage not only one's own emotions, but also to influence those of others. The Mayer and Salovey model is sequential, requiring that perception of emotion precede other dimensions.

The five dimensions of Bar-On's (1997) model can be, and have been, summarized and operationalized as the following quotients, as within the Emotional Quotient Inventory (EQ-i, Bar-On, 1997): (a) Intrapersonal Emotional Quotient (EQ), (b) Interpersonal EQ, (c) Stress Management EQ, (d) Adaptability EQ, and (e) General Mood EQ. Intrapersonal EQ includes the abilities to understand and express one's own emotions, actualize one's potential, and be self-

reliant while Interpersonal EQ allows one to identify others' emotions and relate appropriately. Stress Management EQ subsumes the ability to manage and control emotions. Adaptability EQ characterizes the ability not only to adapt emotions appropriately in necessary situations, but also to solve personal and interpersonal problems and objectively validate them based on external reality. Finally, General Mood EQ includes the ability to be optimistic and content with oneself, others, and life in general.

Classification of Models

Mayer, Caruso and Salovey (2000) characterize their model of EI as an ability model but Bar-On's model as "mixed" because it contains elements of both intellect (i.e., ability) and personality. For example, they argue that Bar-On describes EI as a personality construct rather than an actual "intelligence" because his model is based primarily on personality traits. According to Mayer, et al. a true intelligence must meet three empirical criteria. First, the problems solved in its use must have definite correct and incorrect answers. Second, abilities subsumed in its definition must correlate with self-reported empathy and other measures of mental activity. Finally, absolute EI should increase with chronological age. Mayer and Salovey report that their model of EI meets all three of these standards, though Bar-On's does not. According to those authors, Bar-On's model does not represent a true model of "intelligence".

Mayer, Salovey, and Caruso (2002) assert that EI is the ability to appreciate the meaning of emotion and reason and solve problems using this knowledge. Their definition coincides with their application of the label of "ability model." Alternatively, Sternberg, et al. (2000) say Bar-On's definition of EI is a set of "noncognitive abilities, skills, and competencies" (p. 88). The inclusion of "mental abilities (e.g., problem solving) and… personality traits (e.g., optimism)" (p. 88), earns it the label of "mixed model" because it incorporates multiple constructs.

3

Despite these arguments emphasizing differences between models, it is clear that these models have significant overlap. Table 1 compares the scales of the EQ-i:YV and the MSCEIT:YV, which are based in Bar-On and Mayer and Salovey's definitions of EI, respectively. Comparisons are adapted from those made by Mayer, et al. in Sternberg, et al. (2000). All tables are located in Appendix D. Though there is no direct overlap in the assessments, there are many shared features. For example, there appears to be a strong link between the Managing Emotions Scale (MEIQ) of the MSCIET:YV and the Stress Management Scale of the EQ-i:YV. Stress Management requires the ability to modulate feelings. However, this can also apply to the Interpersonal Scale in that one must not only modulate these feelings in oneself, but also in others. Therefore, Table 1 should be interpreted not as a way to directly compare scores, but as a guide to the more salient comparisons between measures.

Impact of Emotional Intelligence

According to research, when EI is operationalized with a performance-based measure like the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer et al., 2002) the construct can predict a number of characteristics in adults, such as empathy, $r = .43$ ($p < .005$; Ciarrochi, Chan, & Caputi, 2000); parental warmth, $r = .15$ ($p < .025$); life satisfaction, $r = .28$ ($p < .005$); extraversion, $r = .26$ ($p<.005$); openness to feelings .24 ($p<.005$); and self esteem, $r = .31$ ($p < .005$). In addition, EI presumably predicts peer-reported violence, $r = -.45$ ($p < .05$; Rubin, 1999) and ability to lead and work within a team according to supervisor reports, $r = .51$ ($p < .01$; Rice, 1999). A negative correlation of $r = -.33$, $p < .01$ was also reported by Formica in Brackett and Mayer (2003) between another performance based measure, the Modified Schutte Emotional Intelligence Scale (MSEIS; Schutte, et al., 1998), and cigarette and other drug use, fighting, and handgun ownership, combined. From these results, one can infer that when

4

operationalized and assessed by Mayer, et al., EI is important in building interpersonal relationships and positive self-concept.

Lopes, Brackett, Nezlek, Schütz, Sellin, and Salovey (2004) found scales of the MSCEIT predicted quality of social interaction in a study of 118 college students. That is, they found that the Managing Emotions Scale of the MSCEIT was positively correlated with quality of relationship with peers, $r = .33$ ($p < .01$) and positive emotional support, $r = .26$ ($p < .05$), as reported by peers. Self-report of positive relationships with peers was also correlated with the Managing Emotions Scale, $r = .31$ ($p < .01$).

Brackett and Mayer (2003) reported significant relationships among the MSCEIT, the Verbal section of the Scholastic Aptitude Test (SAT; The College Board, 2002), the Self-Report Emotional Intelligence Test (SREIT; Schutte, et al., 1998), and the EQ-i (Bar-On, 1997). In part perhaps because the concepts and operationalizations are not consistently defined across the MSCEIT, EQ-i, and SREIT, the scores reported for the SREIT were not significantly correlated with any other measure. This finding is consistent with Paulhaus' (1991) view that people are not skilled at assessing their own competencies as the SREIT is a self-report, though so is the EQ-i. The SREIT is designed as a brief measure of EI, whereas the EQ-i is to be more comprehensive, however. The MSCEIT is not considered a self-report because there are defined correct and incorrect answers for each question.

Brackett and Mayer (2003) found that, fo the three measures in the study above, the MSCEIT was the most independent of personality resulting in the least overlap with the Big Five factors of personality (i.e., Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) and measures of well being. In addition, the MSCEIT was negatively correlated with social deviance (-.27, $p<. 001$) but positively correlated with high school academic rank

5

(.21, $p<.01$), and college GPA (.16, $p<.05$). While the EQ-i was negatively correlated with drug abuse (-.24, $p<.001$), alcohol use (-.20, $p<.01$) and social deviance (-.21, $p<.01$). All correlations, except those with drug abuse, were more modest than those with the MSCEIT.

It is important to remember that the extant research was conducted using the adult version of the MSCEIT because the measure for children is still in the normative phase. These data are reported, because the downward extension is based in the same theory and created by the same authors. Research on the actual EQ-i:YV and UNIT:GSS exist for children.

Closely related to the primary question of my study, Petrides, et al. (2006) investigated the relationship between a self-report trait measure of EI they developed, the Trait Emotional Intelligence Questionnaire - Adolescent Short Form (TEIQue-ASF), and social ratings by teachers and peers in 160 sixth graders in greater London. Petrides and colleagues found that peers rated others much like teachers when both were given a "Guess Who" Peer/Student Assessment developed by the authors. In the assessment, students were asked to "guess who in your class might" be represented by several statements such as " start fights" or "get chosen by others as the leader." Students nominated all peers who they felt fit a category and scores for each child in each area were calculated based on number of nominations. The researchers found that teachers rated students with high EI as more cooperative and stronger leaders. Those with low EI were rated as more disruptive (more upsetting to others), less likely to share, more controlling and aggressive and more dependent on peers. They tend to give up easily and request help more often. Student-nominated peers with high EI were reported to be more prosocial, cooperative, willing to share, take turns, and are chosen more often as leaders. Apparently, only Petrides, et al. have compared a standardized measure of EI with social ratings by peers and

teachers in a school setting, as no other research cites this type of study. A primary purpose of this study is to extend this research.

Trait-based EI as measured by the Bar-On Emotional Quotient Inventory: Youth Version (EQ-i:YV; Bar-On & Parker, 2000), has been shown to have predictive validity in a number of areas. In a study of 650 British secondary school students, Petrides, Frederickson, and Furnham (2004) found trait EI as measured by the Trait Emotional Intelligence Questionnaire (TEIQue), a self-report measure with questions drawn from a variety of measures including the EQ-i:YV, to be predictive of general academic performance and performance in English, but not science or mathematics. The measure was also found to predict deviant behavior at school such as unauthorized absences and expulsion. This study used a structural equation model to analyze not only the contribution of EI in each setting, but also that of IQ. In each instance discussed, EI was found to be more predictive of the construct in question than IQ. In general, the research shows that performance-based assessments constructed in accordance with ability models of EI are better predictors of achievement than trait-based measures (VanRooy & Viswesvaran, 2002).

Although the UNIT:GSS Emotional Aptitude Scale (UNIT:GSS EAS) is just now in development some initial data are available. Reliability and validity of the UNIT-GSS were explored by Gray (2007). Cronbach's alphas for each scale range from .95 (Creative Arts Aptitude) to .98 (Cognitive Aptitude, Language Arts Aptitude, and Math Aptitude). In order to examine the concurrent validity of the UNIT- GSS, scores from each of its eight scales were correlated with scales from other instruments that measure similar constructs (Gray, McCallum, & Bain, in press). Scores from the UNIT:GSS EAS correlated significantly with participants' scores from the EQ-i:YV Short Version, $r = .47$, $p < .01$. While the EQ-i:YV and MSCEIT:YV

are full and thorough measures of the definitions in question, the UNIT:GSS EAS is meant for use as a screener.

Statement of the Problem

EI constructs can successfully predict some real-world outcomes (e.g., academic achievement, school functioning, and social relationships). But existing EI measures differ on several dimensions including model of origin, source of data, and assessment method. Comparison of the most current measures would be helpful to practitioners. Consequently, one purpose of this study is to compare three salient measures of EI and determine the extent to which these instruments overlap in their operationalizations of the constructs.

Although some predictive data are available in the literature, the ability of EI measures to predict peer-based social skills primarily relies upon self-report or third party rating scales, rather than peer-nominations of social success, i.e., sociometric measures. This is a limitation given that EI presumably reflects social skills as determined by others, at least in part. Consequently, a secondary purpose of this study is to compare the relative ability of three salient measures of EI to predict an important real-world outcome – acceptability/popularity as rated by peers. The same three measures are evaluated: a performance-based measure (Mayer, Salovey, Caruso Emotional Intelligence Test: Youth Version; MSCEIT:YV; Mayer, Salovey, & Caruso, in press), a self-report measure (EQ-i:YV; Bar-On & Parker, 2000), and a teacher rating scale (Universal Nonverbal Intelligence Test: Gifted Screening Scale; UNIT:GSS; McCallum & Bracken, in press). According to the research, EI can predict a number of factors of use to teachers such as classroom attendance and propensity for misbehavior. But can EI predict peer acceptance and why does peer acceptance matter to educators? In a longitudinal study of 163 children in first, second, and third grades Welsh, Park, Widaman, and O'Neil (2001) found that social status in

8

the classroom is integral to educational performance in grades two and three. Children with low social status, as indicated by a sociometric, showed deficits in work habit and academic achievement throughout the study. According to this research, teachers could benefit from identifying children who rank low on social acceptance early in order to begin to remediate social problems. Could measures of EI be helpful in identifying these children? The following questions were created to determine relationship among EI measures and to determine their ability to predict social acceptance.

Research Questions

1. To what extent are three measures of EI (i.e., MSCEIT:YV, EQ-i:YV, and UNIT:GSS) related to each other?

2. What is the relative predictive capability of these three measures of EI to predict social desirability as determined by peers' ratings on a sociometric measure?

CHAPTER II

METHODS

Participants

Participants in this study included students and teachers at two rural elementary schools in East Tennessee and one in North Central South Dakota. One hundred two students in grades three, four, and five took part in the study. Eleven teachers participated, four from School 1, two from School 2, and five from School 3. See Table 2 for details on demographics for participating schools and students. The mean age of students was 10.25 years with a standard deviation of 1.29 years. Data were collected during the spring semester at all schools ensuring that teachers and peers had a thorough knowledge of students in order to complete the measures.

Student race and sex approximates data from the 2006 Census as reported in the United States Census Bureau Statistical Abstract for 2008 (U.S. Census Bureau, n.d.) other than that of African-Americans, as can be seen in Tables 3 and 4. For example, the participant pool was 60% (61 students) female and 40% (41 students) male, which compares to the general population statistics of 51% female and 49% male.

Instruments

The Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version (MSCEIT:YV)

The Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version (MSCEIT:YV; Mayer, et al., in press) is a 184-item youth version of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) designed to assess emotional intelligence of children and adolescents ages 8 through 19 years. Publishers estimate the readability level of the MSCEIT:YV at fifth grade. This ability-based instrument measures how well people solve emotionally relevant tasks and problems. The assessment has predetermined correct and incorrect answers for

each query, making it ability-based, rather than a self-report. This instrument yields a single Total Emotional Intelligence (EIQ) score in addition to two area scores for Experiential Emotional Intelligence (EEIQ) and Strategic Emotional Intelligence (SEIQ). Mayer and Salovey's Four-Branch Model of EI guided its development. The two area scores are further divided to encompass the four central branches of emotional intelligence in Scale scores describing students' abilities to: (1) accurately perceive emotions - Perceiving Emotions (PEIQ); (2) use emotions to facilitate thinking, problem solving, and creativity – Facilitating Thoughts (FEIQ); (3) understand emotions – Understanding Emotions (UEIQ); and (4) manage emotions for personal growth – Managing Emotions (MEIQ).

The user's manual for the MSCEIT (the adult version of the test that served as the basis for the MSCEIT:YV) states the demographic characteristics of the normative sample ($N = 5,000$) do not adequately reflect those in the United States, but the sample was weighted "to mimic" the gender, age, ethnicity, and educational demographics of the United States Census at the time. MSCEIT scores reveal gender, age, and ethnicity differences with females and older participants scoring higher on all scales. Whites scored higher than Blacks and Asians on 14 of 15 scales.

Reliability and validity are explored for the MSCEIT, as the MSCEIT:YV is still in the normative phase, but is closely related to the adult version. Test-retest reliability for the MSCEIT as reported in the manual was .82 (n = 62), but time lapse for this study was not reported, nor were test-retest reliabilities for the scales. Split-half reliability estimates for the global, composite, and scale scores ranged between .79 and .93. Internal consistency reliabilities for the eight task scores ranged from .56 to .88. Reliabilities for the global, composite, and scale scores were adequate, but those for some task scores were lower than expected. Most reliability studies reported in the manual were conducted with earlier versions of the test and there was evidence to

11

show that the MSCEIT Scale scores were not related to scales with little conceptual relationship to emotional intelligence (e.g., SAT scores, scores on depression and suicidal ideation). It is interesting to note that a study by Brackett and Mayer (2003) did not replicate these data. They did find a significant relationship between the MSCEIT and the Verbal ACT score of their participants.

Correlations between MSCEIT scores and tests of intelligence were modest to moderate, ranging from $r = .05$ with Raven's Progressive Matrices (Raven, Raven, & Court, 1998) to $r = .38$ with the Army Alpha (Yerkes, 1921) Vocabulary Scale. Correlations of MSCEIT scores and scores from personality measures were also in the modest to moderate range. For example, the manual cites significant comparisons of the MSCEIT and the NEO-PI-R (Costa & McCrae, 1992), $r = .33$ with Agreeableness and $r = .25$ with Conscientiousness. Significant correlations were in the expected direction, but low. Correlations with other measures of personality do correlate in the expected directions at $r = .35$ ($p < .001$) with the Personal Growth scale of the Ryff's Scales of Psychological Well-Being (Ryff, 1989).

Findings from multiple "field studies" were also reported in the manual. High EI individuals were more effective in management than those with low EI across a number of organizational settings (e.g., hospital, business). High EI participants were also more secure in their attachment style and less likely to engage in problematic behavior such as drug use and violence.

The Emotional Quotient Inventory: Youth Version (EQ-i:YV)

The Emotional Quotient Inventory: Youth Version (EQ-i:YV; Bar-On & Parker, 2000) is a self-report instrument that assesses emotional and social functioning of youths aged 7 to 18. The readability of the EQ-i:YV, as determined with the Dale-Chall formula is fourth-grade level. It

consists of 60 items representing seven scales. In addition to a Total Emotional Quotient (Total EQ) score, students receive a Positive Impression score, and are scored on an Inconsistency Index. Scales also include Intrapersonal, Interpersonal, Stress Management, Adaptability, and General Mood. Intrapersonal items assess the capacity to understand and express one's emotions (Bar-On, 2000). Interpersonal items assess the capacity to recognize emotions in others. Stress Management items measure capacity to deal with emotion while Adaptability assesses ability to manage change and problem solving. General Mood items assess ability to maintain a positive, optimistic mood. The Positive Impression scale is composed of items that determine if the respondent is trying to create an "overly positive self-impression"(p 19) and the Inconsistency Index measures discrepancies on similar items.

In their review, Ballard and Leong (2000) report that they view the EQ-i: as a psychometrically sound instrument. Internal consistency estimates of reliability for scales range from .65 to .90 with most in the .80 range. Test-retest reliability, for an interim of 3 weeks, ranged from .77 to .88.

The manual reports a normative sample of over 9,000 children ages 7 to 18 with a mean age of 11.63 (SD=3.07). Scales are "quite reliable in measuring the constructs they were developed to measure" (Bar-On & Parker, 2000, p. 46) according to the manual, the sample's representativeness for the United States' population is not addressed nor their basis for this statement in light of scoring inconsistencies. For instance, females scored significantly higher than males on the Interpersonal, Intrapersonal and Total EQ scores at $p < .001$ in each case according to reviewers (Ballard & Leong, 2000).

The authors of the EQ-i:YV have conducted many of the usual studies to demonstrate validity, such as a factor analyses to determine the structure of the inventory, according to

reviewers, Ballard and Leong (2000). Items loaded moderately well on their matched factors with no major cross-loadings across factors. They also determined concurrent validity with the original adult version of the EQ-I with correlations for the Intrapersonal ($r = .56$) and Adaptability ($r = .63$) scales somewhat lower than desirable. Therefore, the reviewers suggest caution when using these scales with the younger population. The authors also correlated the EQ-i:YV with the NEO Personality Inventory using the short form, the NEO-FFI (Costa & McCrae, 1992) and found anticipated negative correlations between the NEO-FFI Neuroticism and EQ-i:YV Adaptability ($r = -.31$) and Stress Management ($r = -.43$) scales. Similar patterns were found for the Children's Depression Inventory (CDI; Kovacs, 1992) with significant correlations from -.61 between the General Mood Scale of the EQ-I:YV and the Total score on the CDI among females to -.21 among females between the Interpersonal scale on the EQ-i:YV and the Interpersonal Problems scale CDI. The highest correlation was .85 with the Conners'- Wells' Adolescent Self-Report Scale (Conners, 1997). Significant correlations exist with the Conners Parent Rating Scale-Revised and range from -.48 to -.25 (CPRS-R; Connors, 1997).

The Universal Nonverbal Intelligence Test – Gifted Screening Scale: Emotional Aptitude Scale (UNIT:GSS EAS)

The UNIT-GSS (McCallum & Bracken, in press) is designed to assess several aptitudes typically associated with giftedness. It consists of two clusters and eight scales. In this study only the Emotional Aptitude Scale was used, however. The Emotional Aptitude Scale assesses teacher perceptions of the student's ability to get along with peers, recognize one's own and others' emotions, and manage emotions.

The entire UNIT-GSS is meant to be used by teachers in the assessment of students ages 5 through 18. Initial development relied on pilot data from approximately 90 participants. Each

14

scale contains 15 items that are rated with a numerical ranking system ranging from 1 (well below average) to 5 (well above average). A rating of 1 indicates well below average, 2 indicates below average performance, a 3 an average performance, 4 above average performance, and a 5 well above average performance. The UNIT:GSS Emotional Aptitude Scale is presented in Appendix A. Teachers are instructed to rate behavioral statements based on their knowledge of the child and relative to that of his or her same-aged peers in the local environment. Teachers are also instructed to consider the native language of the child and to focus on aptitude for communication, regardless of the language or medium used.

Reliability and validity of the UNIT-GSS were explored by Gray (2007). Cronbach's Alphas for each scale were found to be high with a range from .95 (Creative Arts Aptitude) to .98 (Cognitive Aptitude, Language Arts Aptitude, and Math Aptitude). In order to examine the concurrent validity of the UNIT- GSS, scores from each of its eight scales were correlated with scales from other instruments that measure similar (Gray, McCallum, & Bain, in press). Scores from the Emotional Aptitude Scale were correlated with participants' scores from the EQ-i:YV(S). The correlation between the two instruments was reported to be .47, $p < .01$.

Sociometric Technique

A sociometric instrument was created to determine which children in each classroom were most socially desirable. This measure is based on the sociometric designed and studied by Coie, Dodge, and Coppotelli (1982). In a study of 311 third and fifth grade students, this form of sociometric was found to have a 12 week test-retest reliabilities of .65 for the two categories in which students rated peers, "liked most" and "liked least". This scoring technique was chosen based on this psychometric data. In both this and the cited study, students were asked to rank the three peers they most and least like in their class (see Appendix B for the sociometric).

15

The procedure used to analyze the findings of this measure is cited in Coie, Dodge, and Coppotelli (1982) and further refined by Bell and McCallum (1995). A Social Preference (SP) score was obtained by collecting students' peer nominations and adding the scores for each question to determine Liked Most (LM) and Liked Least (LL) scores for each student in the class. The SP was then calculated by subtracting LL from LM (LM-LL). Once a raw SP was found for each student, it was converted to a Z-score by subtracting the mean SP for the group from that of the student in question and dividing by the standard deviation of the SP for that group.

Analyses for the research questions in this study relied on Pearson product-moment correlation coefficients and a multiple regression equation. The multiple regression equations were conducted to determine the relative predictive validity of each measure - MSCEIT:YV, EQ-i:YV, and UNIT:GSS EAS Full Scale – for the sociometric. The SP score became the dependent measure for the further analyses.

Procedure

Administrators and teachers in each district participating were contacted to obtain permission to collect student data. A letter of permission was obtained from each school's principal, then from each participating teacher. Once permission was obtained at the school and classroom level, permission forms were sent home to obtain parental consent to assess the children. Finally, each child signed an assent form stating that he or she understood that all information given would remain confidential. In addition to this, all letters and forms included descriptions of measures to be given and assurance that none of the data would be provided to the school system in question.

Students with all appropriate consent forms on file were administered the MSCEIT:YV, EQ-i:YV, and sociometric measure by grade level in counterbalanced order using a script to deliver instructions (see Appendix C). Students who did not have permission for testing were separated from their peers and completed an unrelated activity with their teacher. Students completed the Emotional Quotient Inventory: Youth Version (EQ-i:YV), the Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version (MSCEIT:YV) and a sociometric rating form in one session between one and two hours in length. Students were told to use only those peers in the testing session when completing the sociometric and were given a list of participant names to choose from in each instance. Finally, during discretionary time, each teacher completed an Emotional Aptitude Scale rating form from the UNIT:GSS for each child with permission for assessment. Each teacher assessed between two and 25 students and was given as much time as needed to complete the rating scale.

CHAPTER III

RESULTS

Correlational and mean difference analyses were conducted to determine concurrent validity of the Bar-On EQ-i:YV, MSCEIT:YV, the UNIT:GSS EAS, and a sociometric assessment. In addition, results of a multiple regression equation show their ability to predict a sociometric index. Descriptive statistics, means and standard deviations are displayed in Table 5.

In general, mean scores are slightly below population parameters for the EQ-i:YV, and MSCEIT:YV while standard deviations were slightly larger. For these measures the population means are set to 100, standard deviations to 15. For this study, mean standard scores for scales and the overall EQ-i:YV ranged from a low of 93.71 on the General Mood Scale to 95.82 on the Intrapersonal Scale with a mean of 94.21 for the Overall score. Standard deviations range from 14.61 for the Intrapersonal Scale to 17.42 on General Mood. The standard score means and standard deviations for the MSCEIT:YV scales, composites, and overall score reflect a similar pattern with the lowest mean (87.25) from the Perceiving Emotions Scale and highest (96.43) from the Managing Emotions Scale. Standard deviations on the MSCEIT:YV range from 15.01 on the Managing Emotions Scale to 19.66 on the Perceiving Emotions Scale. The UNIT:GSS EAS mean raw score was 44.98 with a standard deviation of 7.97. Raw scores on the measure can range from 15 to 75. Because the UNIT:GSS EAS has not been standardized, no population parameters are available. For context, if all respondents are characterized as average the mean scale score would be 45, by definition. Z scores were calculated for the sociometric SP score and the mean (-.01) and standard deviation (.98) were not significantly different than expected. These

small differences may be due to children failing to consistently rate exactly three peers for each condition.

Skewness and kurtosis values were conducted for overall scores of each instrument as well. The skewness of the UNIT:GSS is - .46 with a standard error of .24, the EQ-i:YV is .21 with a standard error of .24, and that of the MSCEIT:YV, -.41, with a standard error of .24. In all cases the skewness values are acceptable. The kurtosis for each measure was also acceptable ranging from - .56 on the EQ-i:YV to .78 for the UNIT:GSS EAS. So, though means and standard deviations were not exactly as would be predicted, they were acceptable.

Concurrent Validity

Correlation coefficients in Table 6 show concurrent validity of the overall and scale scores for the EQ-i:YV, the MSCEIT:YV, and the UNIT:GSS EAS. Although not the focus of the study, there are several significant within-test coefficients. For example, the highest correlation within assessments is between the MSCEIT:YV Standard Experiential Emotional Intelligence Composite (EEIQ) and MSCEIT:YV Standard Strategic Emotional Intelligence Composite (SEIQ) scores (r = .90, $p < .01$) while the lowest significant correlation within a single instrument is between the MSCEIT:YV Perceiving Emotions Scale (PEIQ) and EIQ (r = .45, $p < .05$). As is obvious, within-scale relationships are strong, showing overlap among subconstructs. In general coefficients within measures are stronger than across measures.

Global scores across instruments correlate at a modest to moderate level. For example, the EQ-i:YV Total EQ score correlates significantly with the MSCEIT:YV EIQ ($r = .36, p < .$ 01). Composite scores from the MSCEIT:YV also correlate significantly with the EQ-i:YV Total EQ; those Pearson correlation coefficients range from .30 to .31 ($p < .$ 01). The UNIT:GSS EAS

does not correlate significantly with either overall scores or composite scores for the

MSCEIT:YV or the EQ-i:YV ($p. > .05$).

There are several significant correlations, ranging from .20 to .39, at the scale level across

the EQ-i:YV and MSCEIT (see Table 6). The highest correlation between scales across measures

is between the MSCEIT:YV MEIQ and EQ-i:YV Interpersonal Scale ($r = .36$, $p < .01$) while the

lowest significant correlations across measure are between the MSCIET:YV Facilitating

Thoughts Scale (FEIQ) and the EQ-i:YV Adaptability Scale ($r = .20$, $p < .05$) and the

MSCEIT:YV MEIQ and EQ-i:YV Adaptability Scale ($r = .20$, $p < .05$).

The main correlations of interest are those of corresponding scales featured in Table 1.

Because the corresponding scales have some common elements, theoretically, they would be

expected to correlate at a higher level than other scale pairs that appear to be less related. Only

two of the four coefficients were significant, however. As can be seen in Table 7, neither the

MSCEIT PEIQ and The EQ-i:YV Intrapersonal Scale nor the MSCEIT Understanding Emotions

Scale (UEIQ) and EQ-i:YV Adaptability Scale correlate significantly. In addition, those that do

correlate significantly do not exhibit strong relationships. The MSCEIT:YV MEIQ and EQ-i:YV

Stress Management Scale correlate significantly ($r = .22$, $p < .05$), as do the MSCEIT:YV FEIQ

and the EQ-i:YV Interpersonal Scale ($r = .29$, $p < .01$). The UNIT:GSS EAS does not correlate at

a significant level with any scale score of the MSCEIT:YV or EQ-i:YV. In general, this pattern

indicates limited overlap among the scales across instruments. However, because third party

informants sometimes rate males and females differently (Reynolds & Kamphaus, 2004) a t test

was conducted to determine whether the means of males ($M = 42.61$, $SD = 9.13$) and females

($M = 46.57$, $SD = 6.69$) differ significantly at a moderate effect size of .55 (Cohen's d). Because

this mean difference is statistically significant ($p < .01$) correlation coefficients were obtained

between the UNIT:GSS EAS and other operationalization of EI separately. Females' scores on the UNIT:GSS EAS do not correlate significantly with any other measures while males' scores correlated significantly with several other scores (see Table 8). For example, male UNIT:GSS EAS scores correlate with global scores, the EQ-i:YV Total EQ ($r = .31$, $p < .05$) and the sociometric SP ($r = .51$, $p < .01$). In addition, the males' UNIT:GSS EAS scores correlate significantly with one of the composite scores of the MSCEIT:YV, the SEIQ, ($r = .31$, $p < .05$), the MSCEIT:YV MEIQ, ($r = .34$, $p < .05$) and the EQ-i:YV Stress Management scale, ($r = .37$, $p < .05$). Correlations were significant with the Most Liked ($r = .38$, $p < .05$) and Least Liked ($r = -.42$, $p < .01$) scores of the sociometric as well. Apparently the ratings for the males are much more similar to the characterizations of EI from other measures than are those for females.

To further determine concurrent validity, a paired t-test was conducted between the means of the EQ-i:YV Total EQ ($M = 94.21$, $SD = 16.34$) and MSCEIT:YV EIQ($M = 93.62$, $SD = 15.94$). The mean difference between these global scores is not statistically significant ($p < .05$) with a small effect size of .04 (Cohen's d), although the correlation coefficient between these scales is significant. Apparently, examinees will obtain similar overall scores on the two measures.

Predictive Validity

Statistically significant correlations are found between the EI measures and the sociometric measure ranging from -.20 to .30. However, only the UNIT:GSS EAS correlated with the sociometric at the $p < .01$ level. It shows modest but significant relationships with the Social Preference overall score for the sociometric ($r = .30$), the Most Liked score of the sociometric ($r = .27$) and the Least Liked score of the sociometric ($r = -.23$). The EQ-i:YV Interpersonal Scale correlates significantly ($p < .05$) with the Social Preference score (.25),

Mostly Liked score (.24), and Least Liked score (-.23). The EQ-i:YV General Mood Scale correlates modestly with the sociometric Least Liked score ($r = -.20$, $p < .05$), as well. When using overall scores of the EQ-i:YV, the MSCEIT:YV and the UNIT:GSS EAS as predictor variables and the sociometric as the dependent variable in the context of a stepwise multiple regression, only one predictor variable was significant (UNIT:GSS EAS) and this scale predicted only seven percent of the variability ($R^2 = .07$, $p < .01$; F = 7.82, $p < 0.01$).

CHAPTER IV

DISCUSSION

In order to examine the concurrent validity of the EQ-i:YV, the MSCEIT:YV, and the UNIT – GSS EAS, global and scale scores from each were analyzed via zero-order correlation matrix and mean difference analyses. Several significant relationships emerged, although most were modest to moderate. In general, within-scale measures showed the strongest overlap. Apparently, scales within measures are assessing somewhat similar constructs (see Table 1). Low coefficients emerged across the instruments, which is not surprising given the differences that characterize the three instruments. For example, the authors of the EQ-i:YV and MSCEIT:YV ascribe to different definitions of EI and rely on different methods of assessment. In addition, standardization data were collected at different times; both the UNIT:GSS and MSCEIT:YV are still in the data collection and normative stage of development. Practitioners should be aware of the hazards of assuming that EI measures are assessing highly similar constructs, as discussed in more detail below. Results confirm Petrides, et al.'s (2006) assertion that method of measurement has a "defining impact on the operationalization of the construct" (p. 537).

Concurrent Validity

Although the relationships among the different measures of EI are modest to moderate, several are statistically significant. Significant correlations exist between the global scores of the MSCEIT:YV and EQ-i:YV in addition to those across the scales of these measures. In general, global scores of the three EI measures are more highly related than scale scores. The global scores correlate to a moderate degree pointing to some overlap in constructs assessed by these measures despite differences in the models guiding development of each assessment, as pointed

out by Mayer, et al. (2000), and other differences (e. g., assessment methods, standardization samples).

Some scale pairs identified by Mayer, et al. in Sternberg, et al. (2000), correlate at a modest to moderate level. For example, the MSCEIT:YV MEIQ and EQ-i:YV Stress Management Scale correlate modestly (r = .22, *p* < .05). This supports, to a degree, Mayer, et al.'s comparison of model components. The MSCIET:YV MEIQ and EQ-i:YV Stress Management scales are likely related by virtue of their measurement of similar skills (i.e., both are designed to assess "management" of emotion, specifically). It is also possible, that the similarities are due to comparable types of questions used to assess these areas. Although questions on the EQ-i:YV are self-report, a different format than the MSCEIT:YV, those on the MSCEIT:YV MEIQ are similar in that they give participants an example of a child in a specified emotional state and ask the participant to rate how specific activities would impact the exemplar's mood. Both types of questions require careful reading and both rely on the participants' ability to predict what they would do (or do for someone) to manage a specific mood.

In addition, there is a moderate but significant correlation between the MSCEIT:YV FEIQ and the EQ-i:YV Interpersonal Scale. Like the MSCIET MEIQ and EQ-i:YV Stress Management Scale, these two scales use items requiring significant reading skills and similar content. In this case, participants on the EQ-i:YV are required to answer questions requiring judgment of the way others feel while self appraisal on the MSCEIT:YV FEIQ requires students to read a sentence describing feelings then rate different words on a Likert scale to tell how much each term "feels" like the specified emotion. Students would also, logically, need to be adept at facilitating emotions in order to interact with others. This explanation is supported by Petrides et

24

al.'s (2006) research that shows those with better social skills display enhanced emotional facilitation, thus higher EI, as rated by peers. Consequently, they have better interpersonal skills. The coefficient may have been reduced between the scales, though, because this set of questions on the MSCEIT:YV was, apparently, confusing to participants; at least two children from each testing site inquired about the directions.

Neither the MSCEIT PEIQ and The EQ-i:YV Intrapersonal Scale nor the MSCEIT UEIQ and EQ-i:YV Adaptability Scale correlate significantly even though they have been "paired" in the literature (Sternberg, et al., 2000). This finding may be due to several reasons other than actual differences in what the scales measure, as discussed below. In addition to explanations cited elsewhere, this finding is consistent with Paulhaus' (1991) view that people may not be skilled at determining the difference in real versus perceived ability.

Apparently the relationship between the UNIT:GSS EAS and other measures of EI changes as a function of gender. When male and female scores are combined into one distribution the relationships are very modest. And, although correlations between the UNIT:GSS EAS scores for females alone are not significant, the UNIT:GSS EAS scores for males were significantly correlated with the EQ-i:YV Total EQ, sociometric SP, the MSCEIT:YV MEIQ, EQ-i:YV Stress Management, and sociometric Most Liked and Least Liked scores. Presumably male students' self-perceptions of emotional aptitude more closely match teacher perceptions. This phenomenon is not unique to the measurement of EI. Third party informants do not rate males and females similarly on some measures of personality either (Reynolds and Kamphaus, 2004).

Although there are several significant and positive relationships among these EI measures, the relationships are less robust than might be expected given that all are presumed to

assess the same construct and similar subconstructs. Examiners should use these results to guide their thinking when choosing an instrument and when making decisions about possible overlap when multiple instruments have been used. So, although it is helpful to know the extent of overlap, it is also helpful to speculate about the reasons for the unexpectedly modest relationships. As mentioned above, authors of the EQ-i:YV and MSCEIT:YV ascribe to different definitions of EI. As Petrides and colleagues point out (2006), different models of EI can impact the different assessments based therein. Since these models are linked only moderately in theory, it is logical that there should be salient differences in the manner in which they assess EI constructs. Perhaps noteworthy, the MSCEIT:YV is the only instrument purporting to use a sequential model of EI. If the model is truly sequential, it may mean that students of such a young age as these participants have not progressed to the higher levels of functioning in the model. In this case, scores across higher-level scales like MSCIET:YV UEIQ and MEIQ would be low. This pattern of scores is not displayed in the mean scores of scales, however, this is likely due to the conversion of raw scores to standard scores by age level.

In addition to model and developmental differences, there are methodological differences. For example, each instrument relies on different sources of data. The UNIT:GSS uses a third-party rating scale, while the EQ-i:YV uses a self-rating scale and the MSCEIT:YV, an ability-based measure. As is apparent from the perception and memory literature, even the same event is often remembered differently by different observers (Schacter, 1999).

There are other instrumentation differences as well. Because the UNIT:GSS is a brief screening measure it does not assess EI in an in-depth fashion, as was true of the SREIT in Brackett and Mayer's (2003) research. Similarly, the SREIT did not show significant correlations with more comprehensive measures. In addition, the UNIT:GSS is the only measure that does

not rely upon students' academic skills for accurate completion. That is, both the MSCEIT:YV and EQ-i:YV require the participants to read and comprehend lengthy passages in order to assess themselves and though the norms for each cover younger students, the readability of the EQ-i:YV is fourth-grade level and the MSCEIT:YV, fifth grade. Neither the UNIT:GSS nor the sociometric measure requires participants to read and these differences may influence the nature and quality of the relationships among instruments.

In addition, there are other possible explanations for the low correlations with the sociometric. Perhaps the peer nomination process itself is subject to considerable error because the data points are very limited (often only two or three questions) and typically produced under somewhat vague conditions. Certainly there are other examples in the literature showing only modest relationships between sociometric ratings and other variables that seem intuitively linked (e.g., attributions for social success and failure; see Bell & McCallum, 1995)

Only a few components of the EI measures correlate significantly with the sociometric index, namely the UNIT:GSS EAS and the EQ-i:YV General Mood and EQ-i:YV Interpersonal Scale. The UNIT:GSS produced the strongest significant correlations with all aspects the sociometric; correlations were all in the expected directions. The EQ-i:YV Interpersonal Scale correlates with the Social Preference, Most Liked, and Least Liked scores in the expected directions. It is logical to assume that a student's self-rating of interpersonal skills would predict peers' ratings of those same skills. In addition, the EQ-i:YV General Mood Scale, which measures overall positive mood, correlates in a negative direction with the Least Liked score of the sociometric measure. These results echo those of Brackett and Mayer (2003); their research found negative correlations between the EQ-i, the adult version of the EQ-i:YV, and socially undesirable traits. Petrides, et al. (2006) also found that a self-report measure correlated

positively with reports of cooperativeness, a trait that could/should be associated with EI. Interestingly, the current results do not reveal significant relationships between the EQ-i:YV and either the MSCIET:YV or the sociometric; they are inconsistent with the findings of Brackett and Mayer (2003) that show relatively similar significant relationships between the MSCEIT and EQ-i and social deviance, a characteristic presumably in opposition to social acceptance.

Predictive Validity

In the context of a multiple regression, only one of the three EI measures significantly predicts the "real world" sociometric index—the UNIT:GSS EAS. Although it was not strongly correlated with the sociometric it enters in the multiple regression equation significantly and no other EI measure adds significantly to the predictive relationship. Perhaps the EI construct (and content), as operationalized by the UNIT:GSS EAS is most similar to the criteria students used to rate the social behavior/acceptability of their peers. There are other explanations for the power of the UNIT:GSS EAS to predict the sociometric scores. In part, the predictive capability may be due to methodological variance; both the sociometric and UNIT:GSS are third-party reports. In addition, perhaps the fact that neither the UNIT:GSS EAS nor the sociometric require reading by the student in question may impact the strength of the relationship.

The current data cannot definitively determine whether the EQ-i:YV or MSCEIT:YV composite scores are related to peer-determined social skills as assessed via a sociometric index. It is clear that no significant relationships were found between these overall measures and the sociometric scores. This finding is somewhat puzzling, given the literature (Brackett & Mayer, 2003 Ciarrochi, Chan, & Caputi, 2000; Lopes, et al. , 2004; Rubin, 1999; and Schutte, et al, 1998;) suggests the MSCEIT is related to different facets of personality and other operationalizations of EI. Again, instrumentation differences may account for discrepant

28

findings. Also, previous research relied on the adult version of the scale which may be less sensitive to the developmental nature of EI than the EQ-i:YV. In the future, researchers should examine the extent to which EI changes across age and how those changes influence peer judgments.

Similarly, the EQ-i:YV might be expected to predict the sociometric scores based on the findings of Conners (1997), who found significant relationships between EI in correlations between EQ-i:YV Interpersonal Scale and the Interpersonal Problems Scales on the CDI as well as with components of the CASS and CPRS-R. In addition, Petrides et al. (2006) found that peers with high EI, were ranked as more prosocial by teachers and peers in relation to a similar self-report. Perhaps, differences in samples may be partially responsible for the different findings across these studies. Connors' study sampled only 49 female undergraduate students ages 17 and 18, an older and less diverse sample. Finally, the methodology of the current study is in some ways different from these other studies. For example, in the Petrides et al. study, the researchers relied on a sociometric that requested students "guess who" in their class would fit several statements such as "start(s) fights" and "gets chosen by others as the leader"; on the other hand students in this study were asked to simply rate peers as "most liked" or " least liked". Consequently, the sociometric ratings probably tapped slightly different student beliefs regarding their peers.

Summary

In summary, the three operationalizations of EI show significant independence among themselves and little relationship to the peer-based sociometric index. They appear to be assessing little in common. It is possible that a child's self-image and understanding of his or her abilities may be very different from peers' and teachers' views of the participants. This is

29

consistent with Paulhaus' (1991) research stating that people are not skilled in self-assessment and the cognitive literature stating that different individuals remember the same event in different manners (Schacter, 1999). Other influences including difference among measures and reading skill requirements may also bear on these relationships. The implications of these findings are important. Existing measures of EI appear to be assessing the constructs somewhat independently. Nonetheless, potential examiners should be aware that the EQ-i:YV and MSCEIT:YV yield higher coefficients between themselves than either do with the UNIT:GSS EAS and produce similar mean composites showing that these two measures will yield similar scores. However the UNIT:GSS EAS appears to be a better predictor of social acceptability by peers than either the MSCEIT:YV or EQ-I:YV.

One important conclusion from this study is that EI measures may not be strong, at least as currently operationalized. Professionals who study EI are in the early stages of defining its parameters and consequently, the task of creating reliable and valid measures is difficult. As the study of EI progresses the measures will continue to evolve and, likely, become more sensitive.

Limitations and Implications

There are several limitations of this research. For example, peer nominations were restricted by the manner in which sociometric data were gathered, i.e., only present peers could be nominated in the measure. Future research may focus on developing a measure of peer acceptability that allows all peers to be nominated by getting permission to test entire grade levels within a school, for instance. In addition, it may be beneficial to develop a sociometric measure with more specific language. Students in this study were asked whom they "liked most" and "liked least;" these categories are broad and obscure reasons students nominated certain

30

peers. This may be particularly useful for researchers interested in specific relationships (e.g., between helpfulness and acceptability, between leadership and acceptability).

Instrument limitations probably influenced the current results. For example, the MSCEIT:YV and UNIT:GSS are both still in the norming and data collection phase of development. It may be beneficial to duplicate this study once the measures are finalized to determine if changes to the assessments affect results. In addition, the standardization data from different instruments were collected using different examinees at different times. Those for the MSCEIT:YV and UNIT:GSS are in progress. Presumably all data will have been collected to mimic the current population, but this is less so for the EQ-i:YV, which was published in 2000.

Limitations with the participant pool restrict generalizability. Participants were from schools serving lower socioeconomic groups and from specific geographical locations. In addition, the ages of participants represented a restricted pool, students were between ages 9 and 11, and each instrument used is intended for a much wider span. Further research of relationships should address these limitations. In addition, the research can be expanded. For example, the popular literature implies that EI is directly related to ability to work and interact effectively with others. In the future, researchers may explore how EI affects work performance and interactions in the workplace.

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35

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APPENDICES

APPENDIX A

Universal Nonverbal Intelligence Test – Gifted Screening Scale: Emotional Aptitude Scale

Universal Nonverbal Intelligence Test - Gifted Screening Scale: Emotional Aptitude Scale

This student….	Well Below Avg.	Below Avg.	Avg.	Above Avg.	Well Above Avg
1. is sensitive to others' emotions.	1	2	3	4	5
2. is respectful of others' feelings.	1	2	3	4	5
3. is optimistic and cheerful.	1	2	3	4	5
4. expresses emotions in a healthy manner.	1	2	3	4	5
5. regulates own emotions.	1	2	3	4	5
6. inspires peers to share their emotions.	1	2	3	4	5
7. empathizes with others.	1	2	3	4	5
8. exhibits a calming influence when	1	2	3	4	5
needed.	1	2	3	4	5
9. delays personal gratification cheerfully.	1	2	3	4	5
10. is emotionally resilient during difficult	1	2	3	4	5
times.					
11. manages difficult situations gracefully.	1	2	3	4	5
12. is diplomatic in confrontational	1	2	3	4	5
situations.					
13. monitors the emotional tenor within a	1	2	3	4	5
group.					
14. exhibits a consistently healthy	1	2	3	4	5
emotional demeanor.					
15. maintains relationships.	1	2	3	4	5

APPENDIX B

Sociometric Rating Scale

Sociometric Rating Scale

List you're top three choices of students in this classroom (other than yourself) for each question in …

1. Which people in this class do you like most?

    1. _____ most

    2. _____ second most

    3. _____ third most

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1. Which people in this class do you like least?

    1. _____ least

    2. _____ second least

    3. _____ third least

APPENDIX C

Administration Script

Administration of Emotional Intelligence Assessments

(Pass out Protocol Packets & booklets)

Please look at me and listen carefully.

You have a packet of three different activities. The packets are in different order for each of you; please leave them in this order.

Find the black and white bubble sheet. Fill in the questions at the very top of this sheet about your age, school, and state. If you do not know an answer, just leave it blank. Go ahead.

(Pause)

This sheet you just filled in goes with the book that looks like this (Hold Up MSCEIT booklet)

Now I will read you instructions for this activity, but we will not start, just listen….

Please read each question on the MSCEIT:YV Research Version Item Booklet carefully

Completely color in the circle on this sheet when you mark down your answer. Follow the sections in order and make sure you color in a circle for each question.

Each activity in the packet has different directions. Please read the directions for the other two activities to yourself right now. When you are done reading, look up at me. Do not start

(Give time to read)

Do you have any questions about any of the activities? (Pause)

Remember, it is important that you only use the names of people in this room who are doing these packets with you when you list people for the sheet labeled "sociometric rating". I have a list of those people here, please check the list and be sure you are on it, if not, raise your hand.

Be careful to write the person's first and last name carefully so I can read them and they match the list.

None of what you write on these activities will be shown to anyone at your school or to your parents. Please do not talk about your answers later, either. This information is for me to learn more about your feelings and about people your age.

Are you ready? Be sure to ask questions now if you have any (Pause)

If you need a break or help with directions while you are filling out these sheets raise your hand and wait for an adult. We cannot help you with your answers, but we can help explain the directions for an activity.

Go ahead and start with your first page, remember to complete the packet as it is, do not skip around. Only write on the answer sheets and be sure to do the front AND back of both bubble sheets. Remember to work quietly and do your best. When you are finished, bring your materials to an adult.

APPENDIX D

Tables

Table 1

Corresponding Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version Scale Scores and Bar-On Emotional Quotient Inventory: Youth Version Scale Scores [Adapted from Mayer, Salovey, & Caruso in Sternberg, et al. (2000)]

Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version	Bar-On Emotional Quotient Inventory: Youth Version
Ability-Type Model	Mixed-Type Model
Perceiving Emotion Branch (PEIQ) Ability to perceive emotions in oneself and others as well as in objects, art, stories, music, and other stimuli	*Intrapersonal Scale* Ability to understand emotions and express and communicate feelings and needs.
Facilitating Thought Branch (FEIQ) Ability to generate, use, and feel emotion as necessary to communicate feelings or employ then in other cognitive processes	*Interpersonal Scale* Ability to have satisfying interpersonal relationships through good listening, understanding and appreciating feelings of others.
Understanding Emotions Branch (UEIQ) Ability to understand emotional information, how emotions combine and progress through relationship transitions, and to appreciate such emotional meanings	*Adaptability Scale* Ability to be flexible, realistic, and effective in managing change through finding positive ways to deal with everyday problems.
Managing Emotions Branch (MEIQ) Ability to be open to feelings and to modulate them in oneself and others so as to promote personal understanding and growth	*Stress-Management Scale* Ability to work well under pressure, resist impulsivity, and respond to stressful events without emotional outbursts.
	General Mood Scale Ability to remain optimistic and pleasant to associate with.

Table 2

Participant School Demographics

School	Site Location	Community Type	Total School Population grades K - 5	Percent Free and Reduced Lunch	Title 1 Eligibility
1	South Dakota	Rural	110	43%	eligible
2	Tennessee	Rural	407	68%	eligible
3	Tennessee	Rural	475	85%	eligible

Table 3

Participant Demographics in Relation to U.S. Census Data

	Percentage in study (raw number of participants)	Percentage of U.S. Population per 2006 Census Data
Female	60% (61)	51%
Male	40% (41)	49%
Caucasian	79% (81)	70%
Hispanic	12% (12)	15%
Native American	5% (5)	1%
African American	0% (0)	13%
Multiracial	4% (4)	1%

Table 4

Participant Demographics

School	Total Participants	Mean Age	Male Participants	Female Participants	Caucasian Participants	Hispanic Participants	Native American Participants	African American Participants	Multiracial Participants
1	44	10.55	21	23	38	0	5	0	1
2	12	10.25	6	6	11	1	0	0	0
3	46	9.96	15	31	32	11	0	0	3
Total	102	10.25	42	60	81	12	5	0	4

Table 5

Means and Standard Deviations of the Bar-On Emotional Quotient: Inventory: Youth Version

Form (Bar-On EQ-i:YV), the Mayer, Salovey, Caruso Emotional Aptitude Test: Youth Version

(MSCEIT:YV), the UNIT – Gifted Screening Scale: Emotional Aptitude Scale (UNIT – GSS),

and a Sociometric Measure

Instrument	M	SD
Bar-On EQ-i:YV Total EQ	94.21	16.34
Bar-On EQ-i:YV Intrapersonal Scale	95.82	14.61
Bar-On EQ-i:YV Interpersonal Scale	94.70	17.09
Bar-On EQ-i:YV Stress Management Scale	95.65	15.44
Bar-On EQ-i:YV Adaptability Scale	94.28	16.50
Bar-On EQ-i:YV General Mood Scale	93.71	17.42
MSCIET:YV Total Emotional Intelligence Quotient (EIQ)	93.62	15.94
MSCEIT:YV Perceiving Emotions Scale (PEIQ)	87.25	19.66
MSCEIT:YV Facilitating Thought Scale (FEIQ)	97.53	16.97
MSCEIT:YV Understanding Emotions Scale (UEIQ)	91.08	15.10
MSCEIT:YV Managing Emotions Scale(MEIQ)	96.43	15.01
MSCEIT:YV Experiential Emotional Intelligence Area(EEIQ)	92.15	17.51
MSCEIT:YV Strategic Emotional Intelligence Area(SEIQ)	93.08	15.04
UNIT-GSS Emotional Aptitude	44.98	7.97
Sociometric Social Preference	-.01	.98
Sociometric Most Liked	2.59	2.00
Sociometric Least Liked	2.57	2.84

Table 6

Correlations Among the Bar-On Emotional Quotient Inventory: Youth Version (Bar-On EQ-i:YV), the Mayer, Salovey, Caruso Emotional Intelligence Test: Youth Version (MSCEIT:YV), the Universal Nonverbal Intelligence Test –Gifted Screening Scale: Emotional Aptitude Scale, and a Sociometric Measure.

	EQ-i Total	EQ:-i Intra	EQ-i Inter	EQ-i SM	EQ-i Adapt	EQ-i GM	MSC EIQ	MSC PEIQ	MSC FEIQ	MSC UEIQ	MSC MEIQ	MSC EEIQ	MSC SEIQ	UNIT EAS	Socio SP	Socio ML
EQ-i Intra	.69**															
EQ:-i Inter	.78**	.37**														
EQ:I SM	.64**	.32**	.28**													
EQ-i Adapt	.77**	.42**	.62**	.28**												
EQ:-i GM	.72**	.49**	.65**	.41**	.56**											
MSC EIQ	.36**	.06	.38**	.26**	.26*	.36**										
MSC PEIQ	.12	.02	-.02	.24*	.04	.07	.45**									
MSC FEIQ	.28**	.06	.29**	.18	.20*	.31**	.60**	.04								
MSC UEIQ	.24*	-.05	.31**	.21*	.17	.24*	.76**	.34**	.36**							
MSC MEIQ	.29**	.02	.36**	.22*	.20*	.29**	.81**	.28**	.36**	.60**						
MSC EEIQ	.30**	.05	.24*	.28**	.19	.30**	.74**	.52**	.88**	.48**	.45**					
MSC SEIQ	.31**	-.02	.39**	.23*	.22*	.31**	.88**	.35**	.41**	.89**	.90**	.52**				
UNIT EAS	.18	.08	.17	.19	.11	.10	.07	-.03	-.11	.12	.19	-.12	.18			
Socio SP	.16	.08	.25*	.00	.12	.17	.11	-.16	.02	.14	.16	-.06	.18	.30**		
Socio ML	.14	.08	.24*	.03	.11	.10	.09	-.16	.01	.14	.16	-.07	.17	.27**	.78**	
Socio LL	-.18	-.08	-.23*	-.03	-.14	-.20*	-.13	.09	-.09	-.14	-.14	-.03	-.17	-.23*	-.88**	-.43**

Note. N = 102

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Note. EQ-i Total = Bar-On Emotional Quotient Inventory: Youth Version Total EQ Score, EQ-i Intra = Bar-On Emotional Quotient Inventory: Youth Version Intrapersonal Scale, EQ-i Inter = Bar-On Emotional Quotient Inventory: Youth Version Interpersonal Scale, EQ-i SM = Bar-On Emotional Quotient Inventory Stress Management Scale, EQ-i Adapt = Bar-On Emotional Quotient Inventory: Youth Version Adaptability Scale, EQ-i GM = Bar-On Emotional Quotient Inventory: Youth Version General Mood Scale, MSC EIQ = Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version Total Emotional Quotient, MSC PEIQ = Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version Perceiving Emotions Scale, MSC FEIQ = Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version Facilitating Thoughts Scale, MSC UEIQ = Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version Understanding Emotions Scale, MSC MEIQ = Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version Understanding Emotions Scale, MSC EEIQ = Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version Standard Experiential Emotional Intelligence Area, MSC SEIQ = Standard Strategic Emotional Intelligence Area, UNIT EAs = Universal Nonverbal Intelligence Test: Gifted Screening Scale Emotional Aptitude Scale, Socio SP = Sociometric Social Preference Score, Socio ML = Sociometric Most Liked Score, Socio LL = Sociometric Least Liked Score

Table 7

Correlations Between Matched Scales of the Bar-On Emotional Quotient Inventory: Youth Version Form (Bar-On EQ-i:YV), the Mayer, Salovey, Caruso Emotional Aptitude Test: Youth Version (MSCEIT:YV).

Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version	Correlation	Bar-On Emotional Quotient Inventory: Youth Version
Perceiving Emotion Scale (PEIQ)	.02	*Intrapersonal Scale*
Facilitating Thought Scale (FEIQ)	.29**	*Interpersonal Scale*
Understanding Emotions Scale (UEIQ)	.17	*Adaptability Scale*
Managing Emotions Scale (MEIQ)	.22*	*Stress-Management Scale*

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Note. Scale comparisons adapted from Mayer, Salovey, & Caruso in Sternberg, et al. (2000)

Table 8

Correlations Among Males' Scores on the Universal Nonverbal Intelligence Test – Gifted

Screening Scale: Emotional Aptitude Scale (UNIT:GSS EAS), the Bar-On Emotional Quotient

Inventory: Youth Version (EQ-i:YV), the Mayer, Salovey, Caruso Emotional Intelligence Test:

Youth Version (MSCEIT:YV), and a Sociometric Measure.

	UNIT:GSS EAS
EQ-i:YV Total Emotional Quotient	.31*
EQ-i:YV Intrapersonal	.15
EQ-i:YV Interpersonal	.21
EQ-i:YV Stress Management	.37*
EQ-i:YV Adaptability	.12
EQ-i:YV General Mood	.22
MSCEIT:YV Emotional Intelligence Quotient	.19
MSCEIT:YV Perceiving Emotions Quotient	-.15
MSCEIT:YV Facilitating Thought Quotient	-.17
MSCEIT:YV Understanding Emotions Quotient	.24
MSCEIT"YV Managing Emotions Quotient	.34*
MSCEIT:YV Standard Experiential Emotional Intelligence Area	-.23
MSCEIT:YV Standard Strategic Emotional Intelligence Area	.31*
Sociometric Social Preference	.51**
Sociometric Most Liked	.38*
Sociometric Least Liked	-.42*

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

VITA

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