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The Relationship between Fine Arts Participation and the Emotional Intelligence of Fifth-Grade Elementary Students

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THE RELATIONSHIP BETWEEN FINE ARTS PARTICIPATION AND THE EMOTIONAL INTELLIGENCE OF FIFTH-GRADE ELEMENTARY STUDENTS

by

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GRADUATE COMMITTEE APPROVAL

of a dissertation submitted by

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This dissertation has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory.

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ABSTRACT

THE RELATIONSHIP BETWEEN FINE ARTS PARTICIPATION
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Although attempts have been made to justify fine arts education in elementary schools on the basis of various educational and social benefits, the greatest benefit may lie in arts participation's impact on the child's emotional intelligence. A review of published literature related to emotional learning, emotional intelligence, and the benefits of fine arts participation in the elementary school is presented. The resulting synthesis serves as a theoretical framework for the view that emotional learning and expression should be integral components of a child's education and that participation in the arts provides a viable means to that end. A study was conducted to investigate the relationship between fine arts education participation (in the Art Works for Kids Program) and the emotional intelligence of 506 fifth-grade elementary students attending schools in 4 school districts in Utah. Findings indicate that participants of the arts

program scored significantly higher on tests of emotional intelligence than non-participants and that students in the dance and music emphasis groups outperformed those in the drama, visual art, theatre/drama, and control groups.

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Those that have made the study presented in this dissertation possible deserve a special thanks: Tim Bothell, who allowed my study to be part of the Art Works for Kids evaluation; David Pater, who went to the elementary schools to test the students when I was ill; the founder of Art Works for Kids, Beverley Sorenson; and all the art specialists, principals, teachers, and parents of the fifth-grade students who allowed me to conduct the study; and of course, the students, themselves.

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Introduction

I just recently discovered the real reason my fifth-grade teacher, Mr. Holtzman, is my favorite teacher of all time. It's not merely that he possessed many of the qualities I admire in a teacher. He was caring, kind, enthusiastic about teaching and learning, and had a great rapport with his students (as have other teachers I've known), yet what ultimately distinguished his teaching above the others is the way he helped his students develop their abilities to perceive, understand, express, utilize, and manage their own emotions and emotional information; in short, he cultivated our *emotional intelligence* that year. He did this in a way that we all appreciated and found enjoyable; he integrated many of the arts (music, drama, poetry, creative literature and visual arts/crafts) into everything we did.

I believe there is much emotional learning involved in active participation in fine arts education, especially when it is integrated into the curriculum. In a recent article in *Educational Psychology Review*, Mayer and Cobb (2000) state:

> We believe that emotional intelligence may well be fostered by courses in the liberal arts and the creative arts. These areas are often economically squeezed in today's curricula because it is hard to explain exactly what they are teaching. One important thing they may foster is emotional reasoning. A student who is discussing what a character in a story feels or what emotions a piece of music or art conveys is actively using and perhaps fostering emotional perception and understanding. . . . Such links, if borne out by research, may relegitimize areas of education that are presently suffering some loss of status and support. (p. 179)

I further believe along with certain prominent psychologists, neuroscientists, and educators that emotional competence, or in other words, a high level of emotional intelligence, is essential to a person's happiness and success in school and work and that it should be fostered within the school curricula with at least the same support as has traditionally been employed for the cognitive domain of learning (Goleman, 1995; Jensen, 2001; Richardson, 2002; Salovey & Mayer, 1990; Salovey & Sluyter, 1997). What evidence is available that supports these beliefs? The following review is presented as a synthesis of the research I have been able to gather that supplies evidence pertaining to the relationship between participation in fine arts education and emotional intelligence.

Since that wonderful fifth-grade year, I've observed that much of my schooling and indeed, much of traditional public schooling in America as we've come to know it, has been found dramatically lacking in curricula that foster emotional learning. It seems as though emotional intelligence has been gravely neglected in an effort to focus on the more efficient, logical, and rational reasoning taught in schools almost exclusively as verbal-analytical development.

The problem is two-fold. First, an education is not complete that focuses solely on verbal-analytical development without considering the role of emotion in learning. Emotional learning is generally neglected or given little importance in the elementary curricula although emotions have a great influence on learning. Some neuroscientists and educational leaders contend that learning cannot even occur without the presence of emotion and that emotional connections are necessary for memory, reasoning, and deep learning (e.g. Goldsworthy, 2000; LeDoux, 1996; Sylwester, 1994; Zull, 1998). Unfortunately, emotions have historically been regarded only as something to subdue and

control rather than a force that mediates learning, as these researchers believe. As psychologists and emotion researchers, Haviland-Jones, Gebelt, and Stapley (1997) have related, "Always we are asked about stopping behavior labeled *emotional*. We have never been asked to *enhance* it (p. 233, italics added)."

At the same time, arts programs (i.e. dance, drama/theatre, music and visual arts) and their integration into the elementary curricula are underrepresented and continually eliminated at the elementary level (Carey, Kleiner, & Burns, 2002) even though an overwhelming majority, 89% in one study, of the American public believes in the value and importance of arts education to a child's development (Davidson & Michener, 2001). Although meta-analyses reveal that many attempts have been made to justify arts education in elementary schools on the basis of various other educational benefits such as increased academic achievement (e.g. Barchard, 2003; Catterall & Waldorf, 1999; Deasy, 2002; Fiske, 1999; Welch & Greene, 1995), the greatest benefits may lie in the role participation in the arts plays in a child's emotional learning and in its impact on a child's emotional intelligence. For example, Eric Jensen (2001) states

> Dramatic arts can facilitate the development of emotional intelligence in children because they meet the criteria for facilitating those essential social and emotional skills. . . . they require managing feelings, expressing verbal and nonverbal requests, delaying gratification, managing self-talk, problem-solving, identifying feelings in others, resolving conflicts, and more. (p. 80)

The purpose of the research conducted for this dissertation was to ascertain whether a relationship exists between fine arts participation in the Art Work for Kids (AWFK) program and the emotional intelligence of fifth-grade elementary students and

to compare the effects of participation in different art types (drama, dance, music and visual art) on elementary students' level of emotional intelligence.

The research questions were

1. Do fifth-grade elementary students who participate in AWFK art programs score higher on measures of emotional intelligence (overall and sub-scores) than those who do not participate? It was hypothesized that AWFK participants do tend to have higher EI and that a significant main effect for AWFK participation would be found when differences in hours of participation were controlled.
2. Participation in which art form emphasis (i.e. music, visual art, drama, dance or art combination) is associated with the highest emotional intelligence scores? It was hypothesized that the greatest effect size would be revealed for those with an emphasis in drama because of the relationships established by other studies of theatre arts and children's affective outcomes (Bennett, 1982; Gourge, Bosseau, & Delgado, 1985; Kardash & Wright, 1987; Myerson, 1981).
3. Is there an interaction between AWFK participation and the ethnicity of the participants?
4. Is there an interaction between AWFK participation and the gender of the participants?

Literature Review

A review of current published literature related to emotional intelligence and fine arts participation in the elementary school was conducted. The purpose of the following review is to present a synthesis of research from three related fields--cognitive psychology, neuroscience, and education--to serve as a theoretical framework for the views that emotional learning and expression are vital, should be an integral component of a child's education and that the arts provide a viable means to this end.

To lay the groundwork for an understanding of the construct of emotional intelligence, this literature review begins with an overview of the pertinent concepts of intelligence and multiple intelligences. This is followed by a brief overview of issues surrounding the evolution of the ability model of emotional intelligence, the interest in emotional intelligence from various fields, and the related educational events and movements. Next, the topic of arts in elementary education is addressed with a brief statement on the current status of arts in the American elementary school, a short summary of research on the value of arts education, and a description of the Art Works for Kids (AWFK) program. The final section of the literature review discusses the current pertinent literature investigating the relationship of individual emotional intelligence abilities and children's participation in the arts.

Intelligence

Various definitions, theories, and models of intelligence have emerged over the last century. There has yet to be, however, any consensus among those who study human intelligence, of a standard, precise meaning for the construct, *intelligence* (Huitt, 2002). Wechsler, the author of the Wechsler-Bellevue IQ test, defined intelligence broadly as

"the aggregate or global capacity of the individual to act purposefully, think rationally and deal effectively with his environment" (Matarazzo, 1972, p. 79). Some have seen intelligence as a single, relatively fixed, general ability (Binet & Simon, 1983; Spearman, 1904). Others have viewed it as a set of mental abilities (Carroll, 1992; Thurston, 1938) or a multifaceted construct involving more than cognitive processes alone (Davies, et al, 1998; Gardner, 1993; Guilford, 1985; Sternberg, 1985). Utilizing the latter general description of intelligence, necessitates not only considering a person's verbal and mathematical reasoning skills (i.e. *academic intelligence* or *general intelligence*) as evidence of intellect, but must also take into account a much broader range of abilities.

Multiple intelligences. One multidimensional approach to defining intelligence is Gardner's (1983, 1993) theory of multiple intelligences. Gardner identifies and describes eight distinct types of intelligence: linguistic, spatial, logical-mathematical, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalist intelligence.

Emotional intelligence, as defined by Salovey and Mayer (1997), is closely associated with Gardner's *personal* intelligences (*interpersonal* and *intrapersonal).* Gardner (1993) defines intrapersonal intelligence as the " knowledge of the internal aspects of a person: access to one's own feeling life, one's range of emotions, the capacity to effect discriminations among these emotions and eventually to label them and to draw upon them as a means of understanding and guiding one's own behavior" (pp. 24-25). He states that "interpersonal intelligence builds on a core capacity to notice distinctions among others; in particular, contrasts in their moods, temperaments, motivations, and intentions" (p. 23).

Criteria for an intelligence. Although Gardner (1983) acknowledges that ". . . a single irrefutable and universally acceptable list of human intelligences . . . " (p. 60) may never be developed, he sets forth criteria upon which an intelligence may be identified. Drawing upon findings from evolutionary biology, anthropology, developmental and cognitive psychology, neuropsychology, and psychometrics, Gardner uses eight different criteria to evaluate whether an ability can be considered an intelligence: (a) potential isolation of the ability by brain damage, (b) existence of savants, prodigies, and other exceptional individuals with the ability, (c) an identifiable core set of operations--basic kinds of information-processing operations or mechanisms that deal with one specific kind of input, (d) a distinctive developmental history, along with a definite set of outcome performances, (e) an evolutionary history and evolutionary plausibility, (f) support from experimental and psychological tasks, (g) support from psychometric findings, and (h) susceptibility to encoding from a symbol system (Gardner, 1983).

Others who have tried to determine whether a so-called intelligence is a true intelligence have also used certain criteria. Mayer, Caruso, and Salovey (2000) divide these criteria into three groups: conceptual, correlational, and developmental. These researchers expect an intelligence to be able to be broken down into abilities that reflect mental performance rather than simply preferred ways of behaving, or personality traits. They also expect an intelligence to describe a set of closely related abilities that are similar to, but distinct from, mental abilities described by already-established intelligences using empirical standards. Finally, they expect an intelligence to develop with age and experience.

Emotional Intelligence

As with theories of intelligence, various definitions and models of *emotional intelligence* (EI) have also emerged with accompanying controversy, but over a much shorter span of time. Comparatively speaking, the theory of emotional intelligence is in its infancy as it has only been in development since 1990. Grenier (2004) cites three situational factors that served as the impetus for the development of a theory of EI:

> First, there was a solid foundation of psychological research on intelligence, personality and cognitive-emotional processing. . . . Second, the existing theory of intelligence was unable to answer some important questions relating to human intelligence and its application in life. . . . Third, society was ready to accept the notion that something other than IQ could predict success. (pp. 9-10)

Definitions and models of emotional intelligence. Emotional intelligence involves the interaction between the cognitive and the emotional systems. The 10th edition of the American Psychological Association's Thesaurus of Psychological Index Terms defines emotional intelligence as "the ability to monitor and appraise one's own and others' feelings and emotions, and to use this information to guide thinking and action" (Gallagher, 2005).

According to Mayer and Salovey (1997), the psychologists who first proposed and defined the concept in 1990, emotional intelligence is a set of mental abilities that are involved in the capacity to process emotional information in four areas: perceiving, integrating (into thought), understanding, and managing emotions. These abilities constitute a distinct construct separate from personality traits and other intellectual abilities and social skills.

Based on empirical studies Mayer, Caruso, and Salovey (1999) conducted, it appears that emotional intelligence met all three criteria for a separate intelligence. In other words, emotional intelligence could be broken down into a set of abilities; the abilities had a moderate positive correlation to verbal intelligence, indicating that emotional intelligence is related to other intelligences without being the same as them; and emotional intelligence was shown to develop with age and experience.

Mayer, Caruso, & Salovey (1999) contrast their set of criteria for an intelligence with Gardner's:

> One very different set of criteria, suggested by Howard Gardner, includes requirements that an intelligence be identified with a specific brain region or structure and be a culturally valued mental characteristic. Intelligences that are valid according to Gardner's criteria alone are definitely worth studying and may provide information for a next generation of intelligence tests. Still, intelligences that fit his criteria but that are indistinguishable from general intelligence at a behavioral level plainly cannot assist in predicting criteria such as academic success. (p. 31)

Table 1 gives a description of the skills involved in each of the four branches (i.e. abilities) associated with the ability model of emotional intelligence. The four branches are further divided into two areas of emotional intelligence.

Mayer and Salovey's conception of emotional intelligence is considered an ability model because the four branches constitute abilities inherent to the intelligence. This is in contrast to the perspective made popular by the best-selling book, *Emotional Intelligence: Why it can matter more than IQ* (Goleman, 1995) and supported by others wherein

Table 1

The Ability Model of Emotional Intelligence

Areas	Abilities (Branches)	Description of Skills Involved
Experiential Emotional Intelligence (EEIQ)	Perceiving Emotions	The ability to perceive and appraise emotions in oneself and others as well as in objects, art, stories, music, and other stimuli.
	Integrating Emotions in Thought (Facilitating Thought)	The ability to generate, feel, and use emotion as necessary to communicate and express feelings and employ them into other cognitive processes.
Strategic Emotional Intelligence (SEIQ)	Understanding Emotions	The ability to understand emotional information, to understand how emotions combine and progress, to appreciate such emotional meaning and to have insight into and empathy for others' feelings.
	Managing Emotions	The ability to be open to feelings, and to regulate them in oneself in a productive way.

Note. From Salovey & Pizarro, 2003, p. 264. Adapted with permission of the authors. Copyright American Psychological Association.

emotional intelligence is presented as a *mixed model* encompassing the broader range of both social and emotional competencies, traits, and behaviors (Bar-On, 2000*;* Elias, Hunter, & Kress, 2001). The ability and the mixed models comprise the two main schools of thought in the theory of emotional intelligence.

Mayer and Cobb (2000) state that, "Goleman's popularization of the concept of emotional intelligence depended in part on broadening it from a specific psychological entity—a mental capacity for processing emotion—to a broader collection of personal qualities" (p. 170). Goleman (1995) first credits Salovey with expanding Gardner's

personal intelligences into ". . . five main domains" (p. 43) of emotional intelligence: (a) knowing one's emotions or self-awareness, (b) managing emotions or self-regulation, (c) motivating oneself or motivation, (d) recognizing emotions in others or empathy, and (e) handling relationships or social skills. Later, Goleman (1998) lists 25 competencies of the mixed model of emotional intelligence categorized within these domains. These competencies comprise what Goleman refers to as the "emotional competence framework" (p. 26-27) and include such broad traits as self-confidence, trustworthiness, optimism, service orientation, and leadership.

The *Encyclopedia of Applied Psychology* (Spielberger, 2004) suggests that there are actually three major conceptual models of emotional intelligence. In addition to Mayer and Salovey's ability model (Mayer & Salovey, 1997) and Goleman's mixed model of EQ (Goleman, 1998), Bar-On's model of emotional-social intelligence (ESI) (Bar-On, 2005) is listed. Bar-On's model could also be considered a mixed-model as it encompasses 15 emotional and social competencies within the 5 general headings of (a) intrapersonal, (b) interpersonal, (c) stress management, (d) adaptability, and (e) general mood. Additionally, Elias, et al. (1997) have developed a list of Social-Emotional Learning (SEL) competencies that may be viewed as another mixed model of emotional intelligence.

As an aid in comparing the four models related to emotional intelligence at a glance, Table 2 provides a summary of the abilities and competencies targeted in the ability model of emotional intelligence (EI), and the three mixed models of emotional intelligence: emotional quotient (EQ), emotional-social intelligence (ESI), and social-emotional learning (SEL). An effort has been made to align related abilities and

competencies across the models, therefore the lists may not be in their original sequence. For example, empathy is listed as an ability or competency of each of the models in the third row of the table.

Controversy and dichotomy. Various criticism have arisen regarding the construct of emotional intelligence. Emotional intelligence has been labeled an *elusive* and *invalid* concept (Davies, Stankov, & Roberts, 1998; Locke, 2005), ". . . more myth than science" (Matthews, Zeidner, & Roberts, 2002, p. 547) and said to be "resistant to adequate measurement" (Becker, 2003, p. 194). Yet, others argue that emotional intelligence ". . . demonstrates solid convergent and discriminant validity" (Daus & Ashkanasy, 2005, p. 454), can be measured reliably (Mayer, Salovey, & Caruso, 2004a) and predicts important outcomes such as academic performance, prosocial behavior, and satisfaction in relationships (Lopes, Salovey, & Straus, 2003; Mayer, Salovey, & Caruso, 2004). The disparity of opinion regarding these issues is understandable given that protagonists of emotional intelligence have invariably neglected to distinguish between the mixed models and the ability model of the construct. Each of the criticisms cited above have been directed at one of the mixed models wherein emotional intelligence is characterized as a broad variant of social intelligence, the "ability to understand and manage people" (Mayer & Salovey, 1997, p. 435) rather than the distinct and much more narrowly defined emotional abilities of the ability model (Ashkanasy & Daus, 2005; Daus & Ashkanasy, 2005).

An important difference in the promotion of the emotional intelligence models lies in the claims made about the potential predictive value of emotional intelligence. Many social scientists that study intelligence, estimate that IQ or general intelligence

Table 2

Abilities and Competencies of Four Models of Emotional Intelligence

Ability Model of EI Mayer-Salovey (1997)	Mixed-Model of EQ Goleman (1998)	Model of ESI Bar-On (2005)	SEL Competencies Elias (1997)
Perceiving Emotions Perceiving and appraising emotions in: 1. oneself 2. others 3. objects, art, stories, music, and other stimuli.	Self-awareness Knowing one's internal states preferences, resources, and intuitions. Includes: 1. emotional awareness 2. accurate self-assessment 3. self-confidence	Intrapersonal Self-awareness and self-expression. Includes: 1. self-regard 2. emotional self-awareness 3. assertiveness 4. independence 5. self-actualization	Self-Awareness 1. identifying emotions 2. recognizing emotions 3. accurate self-perception 4. recognizing strengths, needs,and values 5. self-efficacy
Using Emotions to Facilitate Thought and Action Generating, feeling, and using emotion as necessary to: 1. communicate and express feelings 2. employ feelings into other cognitive processes.	Motivation Emotional tendencies that guide or facilitate reaching goals. Includes: 1. achievement drive 2. commitment 3. initiative 4. optimism	General Mood Self-motivation. Includes: 1. optimism 2. happiness	Responsible Decision Making 1. problem identification 2. situation analysis 3. problem solving 4. evaluation 5. reflection 6. personal, ethical and moral responsibility

Table 2 (continued).

Ability Model of EI Mayer-Salovey (1997)	Mixed-Model of EQ Goleman (1998)	Model of ESI Bar-On (2005)	SEL Competencies Elias (1997)
Understanding Emotions 1. understanding emotional information 2. understanding how emotions combine and progress 3. appreciating such emotional meaning 4. having insight into and empathy for others' feelings	Empathy (Reading Emotions) Awareness of others'feelings, needs, and concerns. Includes: 1. understanding others 2. developing others 3. service orientation 4. leveraging diversity 5. political awareness	Interpersonal Social awareness and interpersonal relationship. Includes: 1. empathy 2. social responsibility 3. interpersonal relationship	Social Awareness 1. perspective taking 2. empathy 3. appreciating diversity 4. respect for others
	Social Skills/ Handling Relationships Adeptness at inducing desirable responses in others. Includes: 1. influence 2. communication 3. conflict management 4. leadership 5. change catalyst 6. building bonds 7. collaboration and cooperation 8. team capabilities	Adaptability Change management. Includes: 1. reality-testing 2. flexibility problem-solving	Relationship Management 1. communication 2. social engagement 3. building relationships 4. working cooperatively 5. negotiation 6. refusal of provocation and conflict management 7. help seeking and providing

Table 2 (continued).

Ability Model of EI Mayer-Salovey (1997)	Mixed-Model of EQ Goleman (1998)	Model of ESI Bar-On (2005)	SEL Competencies Elias (1997)
	Social Skills/ Handling Relationships Adeptness at inducing desirable responses in others. Includes: 9. influence 10. communication 11. conflict management 12. leadership 13. change catalyst 14. building bonds 15. collaboration and cooperation 16. team capabilities	Adaptability Change management. Includes: 3. reality-testing 4. flexibility 5. problem-solving	Relationship Management 8. communication 9. social engagement 10. building relationships 11. working cooperatively 12. negotiation 13. refusal of provocation and conflict management 14. help seeking and providing

accounts for between 20 and 30 percent of a person's success in life (Gabriel, 2000; Goleman, 1995; 1998). *Success*, in this respect, means the attainment of a level of status in employment or career that the individual feels is satisfactory. Does emotional intelligence account for the unexplained 70 to 80 percent of success as some seem to claim (Goleman, 1995, 1998)? Mayer and Salovey (2000) believe, "the unexplained 80 percent of success appears to be in large part the consequence of complex, possibly chaotic interactions among hundreds of variables playing out over time" (p. 412). While one may, at this time, not be able to predict with accuracy how much emotional intelligence contributes to a person's success, one may be confident that it does positively correlate with measures of educational and career success (e.g. Chernisse, 2000; Fannin, 2002; Zins, Weissberg, Wang, & Walberg, 2001).

Claims about predicting success with the mixed model of emotional intelligence have met with skepticism by contemporary psychologists (Davies, Stankov, & Roberts, 1998; Epstein, 1998; Matthews, Roberts, & Zeidner, 2004). Such claims as ". . . EI might be the best predictor of success in life," (Gibbs, 1995, cover) and the more conservative, ". . . emotional competencies were found to be twice as important in contributing to excellence as pure intellect and expertise" (Goleman, 1998, p. 31) have been met with this comment from Mayer's (n.d.) *Controversies in Emotional Intelligence* Web site:

> Happily, fewer people in the field are now making these claims about emotional intelligence. There appears to be a more realistic approach to the field, and a willingness to see what the research says. The real live facts of emotional intelligence are quite encouraging -- that is, it does seem to predict important outcomes. If those predictive levels are far from the levels that some of the claims

above suggested, they are still of considerable practical and conceptual importance. (Is EI the Best Predictor of Success? section, ¶ 12)

Accordingly, few such claims have yet been made by the creators of the ability model, as they cautiously proceed in a research agenda based on empirical evidence (Cobb & Mayer, 2000). They assert that researchers should adhere to their narrower definition of emotional intelligence rather than invest in the mixed model in order to ". . . ensure discriminant validity in relation to personality and other constructs" (Lopes, Salovey, & Strauss, 2003, p. 643). Gohm (2004) affirms this view stating that, ". . . there is no way to adequately judge the validity of any of the broader models. The only currently available way(s) to measure EI as defined by the broader models [are] via self-perceived reports of the respondent's own EI" (p. 222) or through qualitative methods of observation, interview, and questionnaire (e.g. Gottman, 1998). "Thus, we are judging self-reported [or observed] EI, not actual EI" (Gohm, 2004, p. 222).

In order to judge actual EI, the research I conducted used the ability model of EI as its framework. In order to differentiate between the models, for the remainder of the document the ability model of emotional intelligence will be designated as EI and the mixed models will be referred to as EQ as in Bar-On's (1988) *emotional quotient*.

Predictive validity of the ability model of EI . Mayer, Salovey, and Caruso (2004) assert that, "Careful demonstrations are necessary of what EI actually does predict" (p. 206) and ". . . accumulating evidence indicates that EI, measured as an ability, predicts a variety of important outcomes" (p. 209). EI has been shown to predict important outcomes related to academic performance, deviant behavior, prosocial and other positive behaviors. While it appears that the mixed model of EQ has been the focus of most

studies involving elementary students (e.g. Gottman, 1998; Richardson, 2002; Zins, Weissberg, Wang, & Walberg, 2001), for the purposes of this document, those studies using the ability model and measures of EI will henceforth be highlighted to assure that the same construct is measured as was also used in my dissertation study.

EI was found to correlate with college students' grades (r = .20 to .25) in several studies (Ashkanasy & Dasborough, 2003; Boone & DiGiuseppe, 2002; Brackett & Mayer, 2003; Lam & Kirby, 2002). Referring to conclusions of an APA task force on psychological testing, Mayer, Salovey, & Caruso (2004b) explain that "psychologists studying highly complex human behavior should be rather satisfied with correlations in the r = .10 to .20 range, and they could be generally pleased with correlations . . . in the .25 to .35 area" (p. 253).

I found no studies linking the ability model of EI to academic performance in elementary students, however, Fannin (2001) studied 115 adolescents recently advanced from elementary school, ages 13 to 14, and found that EI significantly correlated with grade point average and achievement test scores. The Adolescent Multifactor Emotional Intelligence Test, a precursor to the Mayer-Salovey-Caruso Emotional Intelligence Test-youth version (MSCEIT-YV) used in my research, was used in the Fannin study.

EI measured as abilities has also been found to predict behavioral outcomes. Results of research in which the association of EI and the deviant behavior of adolescents was studied, showed that EI varied inversely (r = -.45) with bullying, violence, tobacco use, and drug abuse (Rubin, 1999; Trinidad, Unger, Chou, & Johnson, 2004). The fact that both intelligence and personality variables were controlled for statistically in these studies further supports the validity of EI.

Studies in which scores on the ability measure of EI predicted prosocial and other positive behaviors were also conducted with college students. Lopes et al. (2003) found a positive relationship between scores on the Managing Emotion subscale of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) and the quality of interactions with friends. In this study, the Big-Five personality traits (openness, conscientiousness, extraversion, agreeableness and neuroticism) and verbal intelligence were controlled.

Another subscore of the MSCEIT, emotional regulation, predicted aspects of social sensitivity and quality of interactions ($r = .40$) in one study involving 76 university students (Lopes, Salovey, Cote, & Beers, 2005). Those students who scored high on emotional regulation abilities (as measured by the MSCEIT) viewed themselves and were viewed by peers as more interpersonally sensitive and prosocial than those who scored lower. Emotion regulation abilities remained significantly associated with the quality of social relationships after the researchers controlled for the Big Five personality traits (i.e. surgency, agreeableness, conscientiousness, emotional stability, and intellect) as well as verbal and fluid intelligence.

Assumptions of the ability model of EI. The following basic assumptions, based on Detweiler-Bedell and Salovey (2002), are central to the ability model of emotional intelligence and constitute the assumptions related to EI for my dissertation research.

1. People have varying degrees of emotional intelligence (i.e. They differ in how skilled they are in understanding and managing emotional information).
2. Emotional knowledge, the kind of information EI operates on, can be increased (i.e. taught and learned).
3. Emotional intelligence can be measured (operationally).

Interest from various fields. The concept of emotional intelligence has become a topic of interest in various scientific, coporate, and educational circles. Those in the field of psychology (e.g. Mayer, Salovey, Bar-On) have studied emotional intelligence in an attempt to define, validate, and formulate a theory for the construct as well as to investigate its relationship to psychological aspects of emotion and personality. Cognitive neuroscientists provide biological support for EI and EQ by unlocking the mysteries of how and where emotions are physically processed (Bar-On, Tranel, Denburg, & Bechara, 2003; Damasio, 1999; Lane & Nadel, 2002; LeDoux, 1996; Sylwester, 1994, 1995, 2000a, 2000b). Goleman's popularization of EQ has taken hold in the coporate business world and many training enterprises have become available (e.g. *EQ Alive, QMetrics, EQup^, EmotionalPower*).

It is beyond the scope and purpose of this review to elaborate further on these endeavors related to emotional intelligence. However, because the interest in emotional intelligence from the field of education is directly applicable to the topic of my research, it will be described in greater detail in the next section.

Education and Emotional Intelligence

A brief review of movements in education related to emotional literacy can provide background for an understanding of the relationship of emotional intelligence and education today. Although some of the movements were developed prior to 1990, when Salovey and Mayer first formally defined EI, each movement, with its accompanying interventions and programs, has contributed much toward how emotional intelligence became a topic of educational policy (Mayer & Cobb, 2000).

In discussing educational policy on emotional intelligence, Mayer and Cobb (2000) assert that educational ". . . policy makers were informed by journalistic accounts of science rather than by science itself" (p. 171) in their acceptance of EQ as ". . . central to emotional learning, highly predictive of success, essential to character and readily taught" (p. 171). Gohm (2004) further cautioned ". . . as in the workplace, educational and social institutions are rushing to teach (emotional intelligence) before valid evidence for its effectiveness or the effectiveness of instructional programs has been demonstrated" (p. 224).

Again, most programs are not based on the ability model of EI, but rather are based on the mixed models of EQ or on the broad sets of social and emotional competencies. While, some programs are not specifically designed to directly promote, develop or foster the four EI abilities (Matthews, Zeidner, & Roberts, 2002), a program that *is* designed to do so is highlighted within each educational movement as an example of how emotional intelligence has been promoted within the elementary school.

The character education movement. Character education involves teaching and learning various personal development skills and ethical values involved in moral reasoning. Character education as a movement began in the United States public schools in the late 1920s. Interest in character education has reemerged more recently as a result of concerns such as school violence (Nucci, 1997).

The Character Education Partnership lists 11 principles of effective character education. The second principle defines *character* comprehensively to include thinking, feeling, and behavior (Lickona, Schaps, & Lewis, 2003). It is the feeling aspect of character education that is most related to the theory of emotional intelligence. Character

education emphasizes ". . . non-rational mechanisms of self-control and behavioral follow-through" (Nucci, 1997, p.127). Since character education is primarily concerned with enhancing children's emotional and social functioning, the terms emotional intelligence and emotional quotient (EQ) have also frequently been used to describe this effort.

Various national programs currently exist, with more than 30 recipients of the U.S. Department of Education character education state grants and legislation in 17 states regarding character education. Among these are the *Character Counts!* program, the *Resolving Conflict Creatively* program, and the *Character Education Partnership.* Fewer discipline referrals and increased achievement are among the claims of benefits for these interventions in elementary schools (Character Education Partnership, n.d.).

An independent evaluation of one character education program, the Resolving Conflict Creatively Program (RCCP), found that students whose teachers taught a high number of RCCP lessons exhibited more emotional control and positive social behaviors than their peers and also showed gains in standardized test scores. The evaluators examined the program's impact on 5,000 students in 15 participating New York elementary schools. The primary goal of RCCP is to ensure that young people develop the social and emotional skills needed to reduce violence and prejudice, form caring relationships, and build healthy lives (Aber, Brown, & Henrich, 1999).

The affective education movement. Benjamin Bloom, et al. (1964) identified three domains or categories of learning: the cognitive, affective, and psychomotor. The three domains directly correspond to the three character components of character education, thinking, feeling, and behavior. The cognitive domain focuses on knowledge with

thinking and memory as processes of learning. The psychomotor domain includes physical skills: movement, coordination, and use of the motor-skill areas. The affective domain encompasses the feelings or emotional components and influences of learning. The affective education movement of the 1960s emphasized the feelings and values of the child. The theory that emotional abilities can be cultivated in the classroom gained popular attention as a result. The movement's promotion of experiential approaches for building student *self-knowledge* and *feeling recognition* particularly relate to the concept and abilities of emotional intelligence (Steinberg, 2000; Wood, 1996).

Brain-based learning. Since the 1990s, the presidentially mandated decade of the brain, many neuroscientists and psychologists have shared insights they have gained from current research to advise educators on how to facilitate what has come to be known as *brain-based* or *brain-compatible* learning (Bransford, Brown, & Cocking, (eds.), 2000; Jensen, 1998, 2001; LeDoux, 1996; Sylwester, 1994, 1995, 1998, 2002; Walsh, 2000, Weiss, 2000; Wolfe, 2001; Zull, 1998). Jensen (2000) points out that brain research may suggest a particular pathway for teaching and learning, but doesn't actually prove anything about educational practice. For this reason, he cautions educators to be prudent in how they interpret and use this research in their classrooms. However, Jensen (2000) also states

> We now know enough about the brain to justify specific strategies that only a few years ago were just good ideas without scientific basis. Here's an example. We have powerful evidence that embedding intense emotions—such as those that occur with celebration, competition, or drama—in an activity may stimulate the

release of adrenaline, which may more strongly encode the memory of the learning. (p. 77)

Within the realm of brain research, emotional processing is becoming better understood by those investigating this complex phenomenon aided by modern advances in neurological imaging. Recent developments in brain imaging technologies, including Functional Magnetic Resonance Images (fMRI), have aided researchers in mapping the brain's circuitry and beginning to come to an understanding of how both affective and cognitive information is relayed within the brain's neural pathways (Gabriel, 2000; LeDoux, 1996, Sylwester, 1995). Ashkanasy and Daus (2005) note, "Emotional intelligence is founded in modern understanding of the role of (these) emotional circuits in the brain" (p. 445).

For example, Adolphs (2001) investigated human emotion processing at the level of individual brain cells. He and other researchers at the University of Iowa were able to record the activity of individual brain cells in an awake, alert patient as he was shown images designed to elicit an emotional response. The study results show that neurons in the right prefrontal cortex of the patient were able to distinguish or categorize emotional information from visual stimuli very rapidly. The same group of researchers has also identified specific areas of the brain that facilitate the assessment of emotion in facial expressions of others and have discovered some of the neural structures important for developing empathy or a sense of how another person feels.

Several studies have also investigated what happens in the brain while a person is creating art. For example, brain imaging research shows that several brain areas are larger in adult musicians than in nonmusicians and that music training actually increases brain

circuitry. This suggests that music training can influence brain organization and ability (Kibuik, 2003).

Evidence from brain research suggests that the arts enhance the process of learning and that the emotional system is developed through participation in the arts (Jensen, 1998, p. 2). Rettig & Rettig (1999) list implications of brain research for teaching art: (a) use emotion, (b) use senses, (c) promote student self-direction, (d) enable social learning, and (e) encourage pattern-finding.

Social-emotional learning movement. Social and emotional learning (SEL) is defined as "the process of acquiring the skills to recognize and manage emotions, develop caring and concern for others, make responsible decisions, establish positive relationships, and handle challenging situations effectively" (CASEL, 2004). CASEL, the Collaborative for Academic, Social, and Emotional Learning at the University of Illinois, was founded by Daniel Goleman in partnership with Eileen Rockefeller Growald in 1994, just prior to Goleman's (1995) noted popular publication on emotional intelligence. It may be partially due to this sequence of events that emotional intelligence and social-emotional learning have become closely identified with each other as virtually interchangeable terms (i.e. EQ and SEL) within the SEL literature (e.g. Cohen, 1999; Elias, 2003; Matthews, Zeidner, & Roberts, 2002). This trend has further contributed to the confusion about the definition of the construct of EI and its predictive validity. Mayer and Cobb (2000) explain, "virtually any link between personality and good school outcomes could be attributed to this broad conception of emotional intelligence" (p. 170).

Today thousands of U.S. schools are using SEL programs (Matthews, Zeidner, & Roberts, 2002). A myriad of school-based intervention programs have become popular

since the 1990s (e.g. *Self-Science, PATH- Promoting Alternative Thinking Strategies, SOAR- Skills, Opportunity, and Recognition; Resolving Conflict Creatively; Peace Works*). Individual skills targeted in these programs vary in number and purpose, but generally relate to the broad set of SEL competencies delineated by Elias, et al (1997) as (a) self-awareness, (b) social-awareness, (c) responsible decision-making, (d) self-management and (e) relationship management.

One SEL intervention that was designed to directly develop emotional intelligence abilities (i.e. emotional competence), is the PATHS program, (Promoting Alternative Thinking Strategies). The pilot version of the PATHS curriculum utilized a Feelings and Relationships unit with 35 (20-30 minute) lessons that focused on teaching emotional and interpersonal understanding. The lessons included instruction, role playing, class discussion, modeling by teachers and peers, social and self-reinforcement, and worksheets. Visual learning aids included those used by the students to display an illustration of how they were feeling at various times and a Control Signals Poster (CSP) with a red light for "stop—calm down," a yellow light for "go slow—think," and a green light for "go—try my plan."

A study measuring the effects of the intervention with 286 children in grades two and three from a Seattle school district, found significant improvements in the children's ability to recognize others' feelings, understand their own feelings, and in their confidence to manage their feelings—three of the four EI abilities (Greenberg, et al., 1995). Instruments used in the repeated measures research design of the study were the revised Kusche affective review (KAI-R) and the Child Behavior Check List—Teacher Report Form (CBCL-TRF). The researchers had found no other studies undertaken to

assess the effectiveness of teacher-based instruction on emotional processes of students when they conducted their literature review (Greenberg, et al., 1995).

Arts in Elementary Education

Section 5551 of the *No Child Left Behind Act of 2001* states that one of the purposes of government assistance for arts education is ". . . to support systemic education reform by strengthening arts education as an integral part of the elementary school and secondary school curriculum (United States Department of Education, 2001)." For arts education to become an *integral* part of the elementary school curricula, its current status must be upgraded from that of an *auxiliary* part.

Current status of arts in elementary education. Although fine arts instruction has received increased attention as an important component of education recently, availability of instruction within the four arts disciplines (drama/theater, music, visual arts and dance) is not universal, has not been evenly distributed, and is subject to cuts due to budgetary constraints. The most recent statistical analysis report by the U.S. Department of Education's National Center for Education Statistics (Carey, Kleiner, & Burns, 2002) gives the status of arts in U.S. public schools for the year 1999-2000. At that time music and visual arts instruction were available in most of the nation's public elementary schools (94 and 87 percent respectively), while dance and drama/theater were only available in one-fifth of these schools (20 and 19 percent respectively).

Another indicator of the status of fine arts education within the country is the employment of full-time specialists who teach the disciplines. During the 1999 - 2000 school year, full-time specialists were employed in 67 percent of elementary schools for

music, 48 percent for visual arts, 5 percent for dance, and only 3 percent for drama (Carey, Kleiner & Burns, 2002, p. iii, 5).

School time devoted to arts education in the elementary school varies widely. The average amount of music instruction in the nation's elementary schools during the 1999-2000 school year was forty-six hours (Carey, Kleiner & Burns, 2002, p. 9). This is approximately one third of the time an elementary student may receive instruction in mathematics for around 150 hours per school year. Within the schools that offered visual arts instruction, students received an average of forty-four hours of instruction for the 1999-2000 school year (p. 18). For drama/theatre, the average was thirty-four hours and for dance the average was twenty-six hours in those schools that provided instruction in these disciplines (p. 26).

In the state of Utah, for example, arts education is mandated and content areas are specified. For elementary schools, art, music, dance, and theatre are required. Time minimums are not specified but suggested at sixty minutes in each art form weekly (approximately thirty six hours per school year), with dance and theatre covered in physical education and language arts, respectively, as part of that 60 minute session (*2005-2006 State Arts Education Policy*). Clearly, the arts in elementary education are generally given only a fraction of the instructional time that the other core curriculum are given.

The importance of arts in elementary education. President George W. Bush stated in a letter for National Arts and Humanities Month of 2002, "The arts enhance our lives, stimulate our creativity, and allow us to express our emotions, thoughts, and aspirations through countless forms of artistic expression" (Bush, 2002, p. 1).

Participation in fine arts programs can potentially influence a child's education in at least three ways. First, a child may learn new cognitive and physical skills inherent to the art discipline that she can use the rest of her life. Examples of these skills are playing an instrument, moving to a rhythm, drawing an object, or portraying a character. Achievement in these areas can be readily measured by a performance assessment to ascertain improvement.

Second, skills developed in fine arts participation can have a relationship or an influence on performance in other academic areas. Examples of this influence are increased spatial-temporal reasoning as a result of learning to play an instrument (Graziano, Peterson, & Shaw, 1999), improved verbal and mathematic scores within an arts-rich education (Podlozny, 2000; Vaughn, 2000), and improved reading comprehension associated with drama participation (Dupont, 1992; Karafelis, 1986). Biological processes are possible explanations for how these influences occur. Jensen (2001) ties together the arts and brain-based learning theory by presenting a comprehensive arts-based brain theory. He contends that "the arts enhance the process of learning. The systems they nourish, which include our integrated sensory, attentional, cognitive, emotional, and motor capacities, are, in fact, the driving forces behind all other learning" (p. 2).

The bulk of empirical research on the value of an arts education deals with the relationship of the arts and academic achievement (e.g. Burger & Winner, 2000; Butzlaff, 2000; Deasy, 2002; Douglas & Willats, 1994; DuPont, 1992; Engdahl, 1994; Estes, 2000; Fetzer, 1994; Fisk, 1999; Friedman, 1962; Hamblen, 1997; Johnson, 1976; Karafelis, 1986; Kardash & Wright, 1987; Keinanen, Haley, 2001; Hetland & Winner, 2000; Kolb,

1996; Kvet, 1982; Luftig, 1994; Mills, 1972; Oreck, Baum & McCartney, 1999; Podlozny, 2000; Rose, 1999; Schulte, 1984; Vaughn, 2000; Winner & Cooper, 2000; Wootton, 1968). Meta-analyses of the various studies of these cognitive benefits can be found in Deasy's *Critical Links: Learning in the Arts and Student Academic and Social Development* (2002); Fiske's *Champions of Change: The Impact of the Arts on Learning* (1999); and Welch's *Schools, Communities, and the Arts: A Research Compendium* (1995).

Experts warn us, however, that "instrumental claims are a double-edged sword." If the arts are given a role in our schools because people believe the arts cause academic improvement, then the arts will quickly lose their position if academic improvement does not result, or if the arts are shown to be less effective than the 3Rs in promoting literacy and numeracy (Winner & Hetland, 2000).

Catterall (1999) disagrees with this reasoning, stating that ". . . the academic community should muster all valid rationales that can be found [to justify arts education] . . . " (p. 17). Eisner (2002) reiterates that "the arts should be justified in education primarily in relation to their distinctive or unique educational contributions (p. 234)."

The third way arts participation can influence a child's education is in the development of affective, social and emotional skills. Examples of these are self-esteem, motivation, aesthetic appreciation, cooperation, empathy, and creative expression. McCarthy, Ondaatje, Zakara, & Brooks (2004) reviewed research and literature on instrumental and intrinsic benefits of the arts in a RAND Corporation monograph. While these qualities and their improvement within program participation may be more difficult to assess than academic and physical skill, these intrinsic benefits may be just as

important to a child's success in school and life (McCarthy, Ondaatje, Zakara, & Brooks, 2004).

Fine arts standards. Developed by the Consortium of National Arts Education Associations, the *National Standards for Arts Education* (MENC, 1994) outlines what every U.S. elementary student should know and be able to do in the arts. Only two of these standards were found to directly prescribe outcomes related to the abilities of emotional intelligence. Both of these standards deal with the ability of perceiving emotion. They are

1. Students compare how ideas and emotions are expressed in theatre, dramatic media, dance, music, and visual arts.
2. Students compare in two or more arts how the characteristic materials of each art (that is, sound in music, visual stimuli in visual arts, movement in dance, human interrelationships in theatre) can be used to transform similar events, scenes, emotions, or ideas into works of art.

A variety of more specific standards related to the four emotional intelligence abilities are included in the Utah core curriculum standards for fine arts (Utah Education Network, n.d.). For example, the fifth grade fine arts standards include the following objectives. Related emotional intelligence abilities, in parentheses, are matched to each objective:

1. Express ideas, thoughts, and emotions aesthetically through singing, playing, and/or creating music (using emotions to facilitate thought and action)
2. Balance reason and emotion in creating, practicing, and performing (using emotions to facilitate thought and action, managing emotions)

3. Determine how varying textures are used in music to express ideas, feelings, and story lines, etc. (perceiving emotions)
4. Use emotional recall to strengthen contrasting moods (managing emotions)
5. Use emotional recall to express a character's feelings in a given situation (understanding emotions)
6. Analyze and articulate emotional responses to and personal preferences about constructed meanings for informal and formal theatre experiences from the viewpoints of both actor and audience (understanding emotions)
7. Predict aesthetic value in significant works of art; e.g., historical importance, communication of ideas or feelings, use of realism, monetary value (perceiving emotions)
8. Express thoughts, feelings, and ideas about the suggested works of art for this grade (using emotions to facilitate thought and action)
9. Assess progress relative to personal goals. Note improvements and recognize feelings toward that accomplishment (perceiving emotions)
10. Explore feelings such as irate, resplendent, and melancholic through movement with a partner (using emotions to facilitate thought and action)

Clearly, these objectives represent an implicit effort to teach and improve emotional intelligence abilities within the elementary fine arts curriculum. Whether these skills are adequately addressed in this medium, however, remains to be seen.

Art Works for Kids Program

Art Works for Kids (AWFK), a private non-profit organization based in Salt Lake City, Utah, is committed to aligning the arts education lessons taught by teaching artists

(i.e. art specialists) with Utah State Office of Education, fine arts core curriculum. A main component of the program is the integration of arts into the elementary classroom curriculum in the teaching side-by-side model (classroom teacher and teaching artist).

The mission of Art Works for Kids is to help facilitate innovative and sequential fine arts education for children in Utah's public elementary schools by providing quality visual art, music, dance, and theatre instruction through professional development of each school's administration and faculty, on-site and virtual teaching, in-service teacher training, and the creation of teaching materials. (AWFK, 2001)

House Bill 325, "creating an arts in elementary schools pilot program to determine if a sequential ongoing arts program in the state's elementary schools can improve the overall excellence and scholarship of students, (State of Utah, 2000) " was passed in the 2000 general session of the Utah legislature. The act was amended the following year to require fine arts instruction "to take place through the joint efforts of a specialist in one of these arts forms and the classroom teacher" (State of Utah, 2001). The purpose of the pilot program was amended to "improve student achievement in the K-6 music, art, dance, and drama core curricula and to identify and evaluate the effect of professional development experiences on teaching practices" (State of Utah, 2001).

Pilot program. The Art Works for Kids pilot program involved 12 elementary schools in 4 Utah school districts between the years of 2001 and 2005. Legislative and private funding was used to hire arts specialists in each of the pilot schools. These specialists were trained by professors from local universities to teach the arts based on the state's fine arts curriculum standards and to integrate the arts into the rest of the

elementary curriculum (Clark & Bothell, 2005). Numbers of AWFK art specialists varied between one and three for each school.

A minimum of 60 minutes per week of instruction in music, visual art, dance or theater in each class of each pilot school was mandated by house bill 174 (State of Utah, 2001). The average number of minutes devoted to arts for each pilot school varied between 156 and 215 minutes per week, two and three times the national average (BYU Educational Evaluation Team, 2005). The art emphasis for each pilot school depended on the specialist's focus with four schools' emphasis in visual arts, three in music, two in dance, one in theater and two in a combination of arts emphases.

The executive summary of the evaluation of the AWFK pilot program (BYU Educational Evaluation Team, 2005), states that among other positive outcomes, principals of the pilot schools reported decreased discipline referrals (as evidenced by school records) although they had no way to determine how much credit should be given AWFK. Principals of the pilot schools were also quoted as saying, "Students were applying the social and emotional skills they learned in fine arts training to their relationships in and out of school" (p. 2). This and the following quotes were gathered from interviews conducted by the Brigham Young University Evaluation Team (2002) between September 1, and October, 15, 2002. One interview question asked each principal and specialist, "What benefits have you seen from your school's involvement with the [AWFK] program?" Comments directly related to the children's emotional intelligence focus on the specialists' and principals' observations of prevailing happiness and excitement exhibited by the students in the program:

1. The students are happier.
2. They are excited to participate in these programs.
3. The climate of the school is one of warmth and love. I personally contribute that climate to the daily integration of the arts in the curriculum.
4. More than anything I think art truly helps a child express himself in more than one way.
5. One student last year (we have lots of stories) after singing went over and gave the teacher a hug and said, “Being with you touches my heart.”
6. As one parent said to me, “This is sure a happy place!”
7. I think music powerfully frees up children’s inner feelings…
8. A girl commented that the songs about the Underground Railroad touched her soul.
9. Our school was unified by learning songs together; students and staff had a positive outlet for some very intense feelings…
10. It is so much fun watching them grasp a concept and feel good about what they have accomplished.
11. The music and interactions between teachers has helped him a great deal. It has pulled him out of his shell.
12. All the kids feel good about themselves.
13. The arts engage children in active learning, giving the opportunities to express themselves from the inside out.
14. The greatest strength I have seen in the arts education is the feeling of everyone can do it. Those who try to, excel.

Although anecdotal, these observations portray the general positive feelings and perspectives of those school personnel most closely associated with the AWFK program. Together, they provide qualitative evidence of the program's influence on the students' emotional well-being.

Arts education in the AWFK program. Specialists in the AWFK program (i.e. teaching artists) develop lesson plans for their respective schools with the objectives of integrating arts into the regular classroom curriculum and aligning activities to the USOE Fine Arts standards. Planning for activities and lessons is accomplished through professional development workshops and consultation with school faculty to discuss the *curriculum mapping* or what the students are and will be learning in the classroom in various subjects. As a result, lessons and activities vary widely among the different schools and art disciplines and a *typical* experience of AWFK participants may not exist. However, one way to examine what occurs in the program is to look at records of these experiences. Examples of lessons presented in each of the four art disciplines are presented next. I selected these examples from specialist interviews and journals solicited by the AWFK evaluation team as well as from actual lesson plans contributed to me by various AWFK specialists.

Music lessons. AWFK specialists provided examples of music lessons they used that are integrated into other elementary subjects. These lessons incorporate music into the classroom in a number of ways. For example, by using a music beat to facilitate reading fluency, using a song to help students memorize the names of the states or counties in geography or numbers and division steps in mathematics, learning songs from different cultures in social studies, and writing poems to set to music in language arts.

No lesson plans that specifically address the USOE core curriculum standards and objectives related to emotional intelligence abilities were submitted. However, the objectives of (a) expressing emotions aesthetically through singing, playing, and/or creating music, (b) balancing reason and emotion in creating, practicing, and performing music, and (c) determining how varying textures are used in music to express feelings, are often implicit in the music activities.

Drama lessons. Examples of drama lesson activities used in the AWFK program include (a) writing and performing a monologue from the point of view of a character, (b) performing a tableau (a frozen picture that comes to life) of facts from Lewis and Clark's expedition, (c) pantomiming a story, (d) dramatizing a poem, and (e) auditioning or practicing a speaking part for a production (e.g. the Olympic Program at Hill Field Elementary). In one lesson plan submitted by Meighan Smith, a specialist at Granite Elementary, the students are asked how the Halloween poem, *Hist Whist* by E.E. Cummings (1983), makes them feel and why. By discussing these questions, the children are given opportunities to increase their abilities to perceive and understand emotions.

In another lesson, elementary students in kindergarten through second grade participate in a process drama by acting out a story by Catherine Ann Cullen (2001) called "The Magical, Mystical, Marvelous Coat." At different points of the story, the children are asked to look at other students' body language to determine how they feel, think about the others' feelings and how it makes them feel, express emotions such as sadness, loneliness, happiness, relief, discomfort, and anxiety. By doing so they are practicing perceiving, understanding, and managing emotions.

Visual arts lessons. An art specialist at Beacon Heights elementary discusses emotion as an expansion of the art lessons she teaches. In one such lesson entitled, "masks as art," she discusses how feelings are portrayed on masks with shapes, lines, and colors and distributes a handout of facial expressions before the students create their own bas-relief mask.

Another specialist at Monroe elementary teaches how emotions can be shown with drawings of facial expressions. She reads the story, "Today I feel silly and other moods that make my day," (Curtis, 1998) and shows the children in first grade paintings that show emotion with color and line such as from Picasso's blue period for sadness and the *Ballerinas* by Edgar Degas for happiness. She then demonstrates how to draw faces for eight emotions. The children pick two of the emotions and draw the face and shoulders and color the background of their picture a color that portrays the emotion. The children are given practice perceiving and understanding emotion in this activity.

Dance lessons. Examples of dance lessons that were integrated into the classroom curriculum for elementary students included having children (a) use dance movements to demonstrate the digestive system in health, (b) form upper case letters with their bodies in reading readiness or simple machines in science, and (c) act out the Civil War with dance and music in social studies, and (d) create a dance showing the attributes of water or the solar system in science.

One lesson submitted by Rachel Swenson, the *self solo dance*, uses dance as a way for students to express their uniqueness. In the lesson the students are required to share their feelings about themselves through an original, individual creative dance. After listing ten words that describe themselves, the students choreograph a solo dance using

dance qualities they associate with the words they have listed. Students are videotaped performing their solo dances and the class discusses what they saw and what they liked in the *perceive and reflect* portion of the lesson. Although not directly taught in the lesson, it is obvious how this type of lesson can develop all four of the emotional intelligence abilities. Students practice *perceiving emotion* as they observe their fellow students' solo dances. The students *utilize emotion* to facilitate thought as they think about the words to describe themselves and decide which dance movements to incorporate into their dance. The students may *understand* certain emotions more fully as they listen to and participate in the discussion of the dances. They may also gain practice in *managing emotion* as they regulate their feelings in order to portray their desired emotion in their dance.

Arts Participation and Emotional Intelligence Abilities

Why is a connection between arts participation and emotional intelligence expected? Each of the four skills associated with emotional intelligence can be fostered through participation in arts instruction. For example, students may regularly use emotions to express feelings within each discipline (visual art, drama, music, and dance). They may be called upon to perceive and understand emotions in others as well as in the art form itself, and also to use emotions to facilitate thought when working together to create and present a work of art or performance.

A study reported by Resnicow, Salovey, and Repp (2004) suggests that "the identification of emotion in music performance draws on some of the same sensibilities that make up everyday emotional intelligence" (p. 145). In this study, 24 undergraduates completed the Mayer-Salovey-Caruso Emotional Intelligence Test and a music listening

test in which they identified the intended emotions portrayed in classical piano pieces. Scores for the assessments were positively correlated (r = .54).

While the relationship of the arts on certain social skills have been investigated (Bennett, 1982; Carlton, 1963; Costa-Giomi, 1998; Deasy, 2002; Dewberry, 1977; Dillard, 1983; Jackson, 1992; Ohler, 2000; Pappas, 1979; Soto, 2001), a comprehensive search of educational journal articles and dissertations produced relatively few studies related to the relationship of the arts to children's emotions and emotional competence. Although, in conducting this literature review, I found no studies that specifically related arts participation with emotional intelligence as a complete construct, 13 studies were found that investigated the relationship of children's participation in one or more of the arts with one or more of the abilities of emotional intelligence.

I sought studies that investigated the relationship between one or more of the abilities associated with emotional intelligence and arts education at the elementary school level. The search process involved locating and surveying several meta-analyses and compendiums (Deasy, 2002; Fiske, 1999; Murfee, 1998; Welch & Greene, 1995; Winner, et al, 2000), dozens of dissertations (e.g. Arthington, 2002; Hudspeth, 1986; Jackson, 1979; Myersen, 1981), and dozens of individual peer-reviewed journal articles dealing with the benefits of arts education. I then examined research questions of the individual studies and found that the vast majority of the studies investigated the association of academic achievement and other cognitive outcomes with participation in the arts. Table 3 summarizes the 13 studies I found that associated specific emotional intelligence abilities with participation in elementary arts education.

Table 3

Studies of Arts Participation Related to Emotional Skills Development

Art Type and Emotional Skill(s) Studied	Reference
Visual Art	
Perceiving Emotion	Arthington, 2002 Walden & Field, 1982
Dance	
Perceiving and understanding Emotion	Boone & Cunningham, 1998 Van Meel, Verburgh, & De Meijer, 1993.
Music	
Perceiving and understanding Emotion	Cunningham & Sterling, 1988 Tergwogt & Grinsven, 1988
Perceiving, utilizing, and managing emotion	Carmichael & Atchinson, 1997
Drama	
Perceiving emotion	Hortacsu & Ekinci, 1992
Understanding emotion	Milner, 1982
Utilizing and managing emotion	Jackson, 1992 Gourgey, Bosseau, & Delgado, 1985
Arts Combination (multi-arts)	
Managing emotion	Baum & Owen, 1997
Utilizing emotion	Burton, Horowitz, & Abeles, 2000.

Visual art studies. Two studies were found dealing with children's ability to perceive emotion in visual art. One study investigated as one research question, "How will the emotions of students participating in an after school art club be affected by the experience?" (Arthington, 2002). A questionnaire was administered asking questions about how the forty-four 5th and 6th grade students felt after they completed the art club sessions. Qualitative data were collected which indicated only positive responses to such

questions as, “Did art club make going to school more fun?” When asked how they felt when creating something, the students used descriptions including, confident, energetic, excited, happy and interested.

In a study to determine how well preschool children perceive emotions in visual art, forty children aged 3-5 years were shown drawings of facial expressions depicting happiness, sadness, surprise, and anger (Walden & Field, 1982). The children were asked to categorize other drawings of expressions by matching them to the ones that “felt the same” (p. 1312). Overall accuracy of all the children was 74 percent. The emotions of happy and sad were matched accurately more often than the other two categories.

Dance studies. One study investigated the ability to decode (i.e. perceive and identify) the emotions of happiness, sadness, anger, and fear in dance forms of expressive body movements as well as the ability to detect differences in intensity of anger and happiness (Boone & Cunningham, 1998). Four, five, and eight-year-old children and adults (n = 103) were given emotion contrast tasks whereby they were presented with two dance performances (simultaneous segment pairs) and asked to identify which of the two expressed one of the target emotions. The participants were also given emotion intensity tasks in which they were again presented with simultaneous segment pairs of dance presentations and asked to identify which of the pair more intensely expressed the target emotion. The faces of the dancers were obscured so that facial expression would not be used as an indicator and the pairings were counterbalanced so that each target emotion was contrasted once with each of the other three emotions.

Chance analyses were used to determine whether the participants’ accuracy was significantly better than expected by chance. All four groups performed significantly

above chance in their identification of the target emotions. As would be expected, the older children's accuracy level was higher than the younger children's. The performance of the eight-year-old children and the adults was not significantly different. Children as young as five were able to use emotion-specific movement cues to determine the intensity of anger and happiness in the dance presentations.

Another study compared children's abilities of perceiving and understanding emotion in dance movement (Van Meel, Verburgh, & De Meijer, 1993). After each of nine dance items were presented in video format, children (ages 5, 8, 10 and 12) with and without dance experience, were asked to tell what emotion they thought the dancers had wanted to convey. The answers given were recorded and analyzed for adequacy and complexity. A significant difference in adequacy of interpretations between the eight-year-old and the five-year-old children was found with the older children performing much better. Children who were experienced in dance used more emotional labels in interpreting the dance items than those without dance experience. The authors concluded that experience in dance does not so much affect the adequacy of the responses as it influences the conceptual level of those responses (p. 131). In other words, the children with more experience participating in dance were able to perceive and identify emotions expressed through dance movement more readily than those without experience.

Music studies. Emotionally conflicted and confused children can be encouraged to express their emotions through free and creative exploration of music and dance. Carmichael & Atchinson (1997) present two case studies as examples to encourage play therapist to incorporate music and movement activities into the playroom. Both children were referred for therapy to ". . . help alleviate symptomatic behaviors related to parental

conflict and abuse (p. 68)." Julie, age six, asked for a piano so that she could play as she talked with the therapist. Using the keyboard appeared to reduce anxiety for her as she related sensitive information about what was troubling her. The music provided security and comfort and a method of communication for her. She had expressed and managed her emotions through the use of the keyboard. Anxiety lessoned each session until at session twelve, she said, ". . . she no longer needed to discuss any problems" (p. 69).

Five-year-old Jay was being counseled regarding his aggressive behavior. When a music corner was added to the playroom he was allowed and encouraged to dance to the music while waving colored scarves. Soft music was chosen at first, then louder and faster music was introduced gradually. Jay ". . . equated the various movements/rhythms and sounds/mood created by the musical activity with behavior in relationships and successfully perceived emotion in the music. The therapist found that ". . . participation in the musical activity made him more aware of his movement, his emotions, and helped him develop more self control" (p. 71).

A study on perceiving and understanding emotion in music was conducted by Cunningham & Sterling (1988). Paricipants, ages 4, 5, 6 and 19, assigned verbal labels to musical segments previously determined by adults to be representative of the emotions (affects) happy, sad, angry, afraid. The results showed beyond chance agreement with adults and indicated that the ability to verbalize an understanding of affective meaning in music is present during preschool years.

Another study involving perceiving and understanding emotion in music was conducted by Terwogt & Grinsven (1988). Sixty-four children, ages 5, 6, 9, 10, and 11, and 32 adults linked classical musical fragments chosen by music experts to emotions

(happy, sad, angry, and afraid). As expected, older subjects were more accurate and gave better justifications for their choices. Some emotions were more difficult than others, for example, anger and fear were often confused.

Drama studies. Students (n = 150) in grades four, five, and six at two inner-city elementary schools in Newark, New Jersey experienced attitudinal gains while participating in an improvisational dramatics program (Gourgey, Bosseau, & Delgado, 1985). Results of an attitude scale created for the study showed significantly improved attitudes relating to self-expression, self-awareness, self-acceptance, acceptance of others, and empowerment all inter- and intra-personal skills related to emotional intelligence.

In a study designed to investigate developmental differences in reliance on situational versus vocal cues for recognition of emotions (Hortacsu & Ekinci, 1992), Turkish children (n = 66) in preschool, second, and fifth grades, were asked to make a judgment about the emotion of the mother referred to in a recording of vignettes. After listening to each vignette, the children were asked individually, (a) What does the mother feel? (b) how do you know she feels this way? and (c) why does the mother feel this way? They were also asked to select one of three drawings of facial expressions (happy, angry or neutral) that represents the way the mother feels. Responses were coded with a 98 percent agreement between the two investigators. Results showed that children of the three age groups correctly identified anger and happiness by listening to the tapes and demonstrated that these emotions can be readily perceived by children when expressed through vocal inflection and context as in a dramatic reading. Recognition of neutrality proved difficult for all age groups, however, recognition of emotions improved with age.

A stratified random sample of 34 children with behavioral disorders participated in a study of the effects of creative dramatics participation on reading achievement and attitudes (Jackson, 1992). Dramatics participation did not produce significant changes in reading comprehension but did in attitudes related to self-concept and tolerance for others as measured by the Piers-Harris Self-Concept Scale.

An experimental fairy tale curriculum was found to be effective in promoting the development of empathy in preschool children (n =56) ages 3-5 (Milner, 1982). Empathy, as used in the study, is the "affective role-taking or the cognitive ability to discriminate and label the emotional state of others" (p. 15).

The major difference in the experimental and control groups' curriculum was that the fairy tale curriculum was structured around one story per week (e.g. *Snow White, Hansel and Gretel, Jack and the Beanstalk*) for the eight week treatment time period, whereas the control groups' activities varied in theme. The treatment group participated in a variety of dramatic activities related to the fairy tales (both as observers and as participants) that were not offered to the control group including (a) creative dramatics/role-playing and enactment of fairy tales, (b) dramatic free play with props, (c) puppet shows, (d) flannel board stories, (e) a feeling game wherein the teacher asked how they would feel if they were one of the characters, and (f) storytelling. Both groups participated in art activities with the same frequency for the eight weeks, however, the treatment group's activities differed in that they all related to the fairy tales (e.g. puppet construction, drawing a favorite scene of the fairy tale). Music (singing) and reading readiness activites were comparable in frequency for the two groups but were more

structured in the treatment group and aimed at improving reading readiness, oral language development and the child's concept of the story.

The children were pre- and post-tested with the *Interpersonal Awareness Test* part 1 (Carnegie-Mellon University) which provided a measure of the child's general empathic social comprehension of feelings of others (Borke, 1971). During the test the child pointed to a picture of a facial expression (denoting happy, sad, angry, afraid) to answer the questions of how someone feels (given a situation such as if she were eating the food she likes best). The fairy tale curriculum intervention had significant effects on empathy as measured by the test (i.e. a significant difference favoring the experimental group was found between the mean scores of the groups on empathy at $\alpha = .05$).

Multi-arts studies. In an observational study involving fourth, fifth, and sixth-grade students from New York City, it was found that artistically talented students (both at-risk and those not at-risk) engaged in significantly more self-regulatory behaviors during classes in which the arts were integrated into the lesson than in traditional classes without arts integration. The behaviors observed included: paying attention, persevering, problem-solving, self-initiating, asking questions, taking risks, cooperating, using feedback, and being prepared, all related to the abilities of utilizing and managing emotion (Baum & Owen, 1997).

Expressing emotion and empathy was investigated in a multi-arts program (dance, drama, visual art, music) as part of an in-depth qualitative and quantitative study to determine if cognitive skills developed through arts have an effect on learning and thinking in general and on other subject matter (Burton, Horowitz, & Abeles, 2000). Data was collected in 12 elementary schools on students' art participation background, using a

self-report questionnaire, and on teachers' perceptions of each child's expression and other qualities (risk-taking, imagination, and cooperative learning) using a rating scale. Items relating to expression on the teacher perception scale were

1. The student is verbally expressive.
2. The student easily expresses ideas nonverbally, for example, through movement, music, or visual art.
3. The student is able to express personal ideas in diverse ways.
4. The student develops and expresses ideas that are important to him/her.

(p. 240)

Data resulting from the student arts background questionnaire was used to divide the children into two groups, a high-arts group and a low-arts group. Those in the top quartile of arts participation scores were placed in the high-arts group; the remainder of students were placed in the low-arts group. Teachers said those in high arts exposure were able to express ideas and feelings, and that drama led to empathy and ability to collaborate. High arts students were also rated higher on expression.

Possible mechanisms. While results of all of the 13 studies cited attribute increased emotional ability to some form of arts participation, none of these studies speculate as to what the particular mechanism or mechanisms are that specifically facilitate such ability. However, one possible mechanism for facilitating emotional intelligence, emotion coaching, was described by Gottman (1998) in a separate study. Using the mixed-model of emotional intelligence as his framework, Gottman (1998) conducted a very detailed study of 56 families (parents and children with children who were four or five years old in 1986) and followed the children as they developed. During

the first phase of the study, each child was observed playing with her best friend for thirty minutes and data was gathered through parental questionnaires and interviews which were then coded for the parents' awareness and regulation of emotions and their ability to recognize and coach their child's negative feelings.

In addition to the qualitative data gathered, Gottman's team of researchers also collected data about the participants' physiological responses to emotion. For example, the children's urine samples were analyzed for traces of stress-related hormones. Other responses monitored were heart rates, respiration, blood flow, motor activity and perspiration on their hands. A unique and rather elaborate approach was used to gather this type of data. The researchers built a mock space capsule and provided the children with space suits which were hooked up to the various electrodes used to monitor their physiological responses to stress. Within the capsule, the children were shown film clips (e.g. the flying monkey scene from the movie, *The Wizard of Oz*) and were taught a new video game by their parents who were standing nearby.

Three years later the researchers revisited the families (when the children were seven or eight years old) and again taped each child playing with her best friend. This time teachers, instead of parents, completed questionnaires regarding the children's behaviors related to aggression, withdrawl, and social competence in the classroom. The children's expression of negative emotion was monitored and recorded for one week and information about their health and academic achievement was obtained from the children's mothers and teachers.

After analyzing the data from the follow-up study, Gottman concluded that children who had *emotion-coaching* parents (i.e. those who consistently (a) are aware of

their child's emotion, (b) recognize the emotion as an opportunity for intimacy and teaching, (c) listen empathetically, validating the child's feelings, (d) help the child verbally label emotions, and (e) set limits while helping the child to problem-solve) had certain advantages over the children who did not. Gottman (1998) concluded that these children could better regulate their own emotional states, had fewer infectious diseases (presumably because of lower stress), were better at focusing attention, related better to other people, were better at understanding people, had better friendships with other children, and performed better academically (p. 35-38).

Emotion-coaching could be an element of arts instruction as the arts instructor regularly practices the five tasks delineated by Gottman in the course of teaching the discipline. It is reasonable to think of an art teacher consistently looking for emotion portrayed by the student's work, using emotion as an opportunity for teaching the art form, listening empathetically, validating the children's feelings while producing art, helping the children verbally label the emotions involved in the art and setting limits (e.g. range and intensity of motion, sound, color, etc.) while helping the child to problem-solve (e.g. how best to portray a character or emotion). How arts instructors use emotion-coaching should be investigated in future studies to help explain any association between arts participation and the emotional intelligence of children.

A thorough examination of all of the possible mechanisms underlying these effects is beyond the scope of this document. However, some other examples that I have observed of common elements a child may experience in art participation include: (a) active involvement, including gross and fine motor movement (b) creative and imaginative expression, (c) self-discipline in learning lines or steps and persistence in

practice, (d) a sense of accomplishment in producing a work of art, (d) cultural awareness when creating or performing works of art from various national origins, (e) problem-solving in determining how best to express emotion through art, (f) critical thinking in evaluating the worth of art, (g) teamwork/collaboration in performing or creating a work of art together, (h) enjoyment of expressing emotion through art, and (i) motivation to persist in practicing the art form. Future studies focused on each of these areas may prove insightful to what actually facilitates increased emotional intelligence.

Gaps in the literature. The 13 studies cited previously illustrate cases of elementary aged children using and increasing specific emotional intelligence abilities through participation in various art activities. To date no study could be located that investigated the relationship of participation in all four disciplines of arts education with all four abilities associated with emotional intelligence. Also, none of the previously cited studies used measures of emotional intelligence specifically designed for elementary aged children to determine an overall score. Now that such a measure exists, it should be utilized for this purpose.

Hours of participation invested by the children studied in the previously cited studies is a prominently missing factor. This variable should be factored into a study to determine whether the number of hours of participation has an effect on the emotional intelligence of the children.

Further research is needed to determine a relationship between participation in arts education and the construct of emotional intelligence as a whole. The purpose of the research I conducted for this dissertation was to ascertain whether a relationship existed between fine arts participation in the Art Work for Kids (AWFK) program and the

emotional intelligence of fifth-grade elementary students and to compare the effects of participation in different art types (drama, dance, music and visual art) on elementary students' level of emotional intelligence.

My main hypothesis in the research I conducted for this dissertation was that a positive relationship exists between participation in the arts and a child's emotional intelligence. Once this association is established, comparative studies on various arts programs and methods of curriculum integration should be investigated to determine effective methods to facilitate emotional learning through the arts. After results of such research have been obtained, we will be better able to determine what mechanisms used in arts education contribute most to emotional intelligence, whether our children are exposed to enough opportunities to participate in arts education, and whether integration within the classroom should be increased.

Method

Participants

Participants were 645 fifth-grade students from the 12 AWFK pilot schools with specialists in one of four art disciplines in the Davis, Salt Lake, Granite, and Uintah school districts of Utah and three schools with no specialist (i.e. the non-arts group). Representative pilot schools in each art area included: Oakridge Elementary (Music), Highland Park Elementary (Dance), Hillsdale Elementary (Theatre), Lapoint Elementary (Visual Art), and Antelope Elementary (non-arts). This sample constituted a purposive sampling of the population.

The population from which the sample was taken consists of approximately 11,500 fifth-grade students within these four school districts. Demographics vary widely between the AWFK pilot schools in these districts. For example, as an indication of socioeconomic status, the range of students eligible for free and reduced lunch fell between 4% (Oakridge Elementary) and 90% (Todd Elementary) for the 2003-2004 school year with an average of 45% of the students eligible in the 12 schools and 53% for the control schools. The average percent of elementary students eligible for free and reduced lunch for the four Utah school districts during the same year was 37% compared to 31% on the state level (UPASS, 2004).

The ethnicity of the students was divided into two basic categories: (a) White, and (b) other, comprising those of American Indian or Native Alaskan, Hispanic, Asian, Pacific Islander, Black and unknown racial origin. Dividing the students this way in order to simplify analysis seemed reasonable because comparably few students were members of the ethnic groups in the other category. During the 2003-2004 school year 83% of

public school students in Utah, 76% of students within the 4 school districts of the study, 72% of the students in the AWFK pilot schools and 75% of students in the control schools were White. Within the 4 school districts, 16% of all students were Hispanic, 4% were American Native, 2% were Asian, Pacific Islander, and Black each and less than 1% were of unknown racial origin.

Scholastic achievement for the participants of the study was comparable to the district and state levels. The Stanford Achievement Test was administered to Utah elementary students in third and fifth grades during the 2003-2004 school year. The results of this norm-referenced test include an overall percentile ranking for the complete battery as a comparison of achievement to the national group of students with the national norm at the 50th percentile. The average was also at the 50th percentile for fifth-grade students in Utah for that year. The average overall ranking was at the 44th percentile for the fifth-grade students in the 4 school districts of the study, at the 43rd percentile for those in the AWFK pilot schools, and at the 50th percentile for those in the control schools (USOE, 2005).

Certain other demographics for the fifth-grade students within the pilot schools were similar to those of fifth-grade students statewide. The average age of the fifth-grade students at the time of testing was 10 years old. The average gender ratio for the four school districts was equivalent to that of the elementary schools within the state at 48% female to 52% male (USOE, 2005; UPASS, 2004). The ratio of female to male participants in the study was comparative at 55% to 45%.

Instruments

Emotional intelligence has been found to be distinct from measures of general intelligence (Soederberg, 1993). A major difference in the ability and mixed models of emotional intelligence is how emotional intelligence is assessed. Several measures of emotional intelligence have been developed since 1995. For example, the BarOn Emotional Quotient-Inventory Youth Version (BarOn Eq-I:YV) is a self-report type assessment designed especially for youth ages 7 to 18. Although it has undergone extensive research for validation and reliability purposes, a major limitation of the instrument is that this self-report measure shows a moderate to strong overlap with personality as it follows the Bar-On model of emotional-social intelligence (Mathews, Zeidner, & Roberts, 2002, p. 224).

The MSCEIT-YV. The research version of the Mayer-Salovey-Caruso Emotional intelligence Test- Youth Version (MSCEIT-YV) was selected for this study because this instrument is the only emotional intelligence test based on the Salovey-Mayer ability model of EI and is specially designed for youth ages 10 to 17. The measure was made available in January of 2004 and is currently being normed. It is written on a fourth-grade reading level with a total of 184 items.

The current scoring system for the MSCEIT-YV Research Version uses a veridical-expert scoring system which is based on emotions research and literature in psychology with the correct theoretical answers determined by experts in the field. The MSCEIT-YV combines four measures, considered both experiential and strategic in nature, to determine a respondent's emotional intelligence. Scores are reported for each

of the four branches (i.e. abilities) of emotional intelligence as well as two area scores (i.e. experiential and strategic emotional reasoning), and a total overall score.

The first branch of the emotional intelligence score is the perceiving emotions score. The maximum possible score for this branch is 88. This score indicates the degree to which the respondent can identify emotion of others shown in photographs of facial expressions. The respondent is asked to select the degree of each of six feelings (surprise, anger, sadness, fear, happiness, and disgust) the person in the photograph is expressing. For example, the respondent is asked to select how much surprise is shown in the face displayed on a scale of 1 to 5 where 1 is none at all, 2 is a little feeling, 3 is a medium feeling, 4 is a strong feeling, and 5 is a very strong feeling. This section displays 8 faces and solicits 48 responses from the participants.

The integrating score, the second branch of the measure, indicates the degree to which the respondent can use personal emotions to facilitate thought. The maximum possible score for this branch is 105. In this section of the test the participant is asked to imagine feeling a certain way in a certain situation and then to select the degree to which feeling that emotion is like each of six varied adjectives. For example, the subject is asked to imagine feeling proud about a task done well and then to select how much the feeling of being proud is like the word fast on a scale of 1 to 5 where 1 is does not feel this way, 2 is feels a little this way, 3 is feels somewhat this way, 4 is feels this way, and 5 is definitely feels this way. Set 1 of this section gives 6 situations and solicits 36 responses. Set 2 of the same section is similar to set 1 except in this set combinations of adjectives are given as a way to feel and the participants are asked to select the degree to which feeling that way is the same as feeling each emotion. For example, the subject is

asked to imagine feeling cold, slow, and heavy and then to select how much that feeling is like guilt. Set 2 of this section gives 4 situations and solicits 24 responses.

The understanding emotions score, used as the third branch, denotes how well the respondent understands the complexities of emotional meanings, emotional transitions, and emotional situations. The maximum possible score for this branch of the test is 79.5. In set 1 of this section of the test the participants are asked to select from a list of emotions, the one that best completes the sentence describing that feeling. For example, the respondents are asked to choose from 5 emotions to complete the sentence, "When you have something really nice, and then you lose it, you end up feeling . . . " Set 1 has 10 items. In Set 2 of the same section, the participants are again asked to select the most appropriate emotion to complete a sentence or two describing how someone felt in a certain situation. Set 2 has 20 items. Set 3 of this section has the students select pairs of emotions to answer questions in the format, "Jealousy feels most like which two emotions?" Set 3 has 10 items.

The managing emotions score, used as the fourth branch of the test, registers how well the respondent is able to manage emotions. The maximum possible score for this section is 59.5. In this section the participants read very short stories and then answer questions about how to help the person in the story feel a certain way by selecting the degree of helpfulness for each listed action the person could take. For example, in the practice question the respondents are asked to decide how much playing a game with his best friend would help a boy who received some very sad news to feel happy. This section of the test has 8 short stories and a total of 32 items. The final section of the test asks the participants to think of a time they felt a certain way and then to try to make their

faces show the same sort of feeling as exhibited by a person in a photograph. While they are feeling that way, they are asked to select the amount of how they feel of 4 emotions. These constitute the final four items on the test.

Experiential and strategic emotional reasoning are reported as the two aggregate scores, EEIQ and SEIQ respectively. The EEIQ score is comprised of the total of the first and second branch scores for perceiving and utilizing emotions. The total possible score for the EEIQ area is 198.5. The SEIQ area score is comprised of the total of the third and fourth branch scores for understanding and managing emotions. The total possible score for this area is 139.

The overall emotional intelligence score (EIQ) is comprised of the total of the Experiential Emotional Intelligence Area Score (EEIQ) and the Strategic Emotional Intelligence Area Score (SEIQ) scores. The total possible score for the EIQ is 328.5. The norming process of the MSCEIT-YV is expected to be completed by August 2006 (MSCEIT-YV interpretive guide, 2005).

Arts participaton survey. Arts participation was measured by ascertaining the contact hours (the actual number of hours the children attended each component of AWFK) in the two years previous to the study (the 2001-2002 and 2002-2003 school years) from attendance records and by surveying each child/parent regarding participation in other programs (e.g. private lessons, theatrical or musical groups). The survey asked the parents to provide the total hours their fifth-grade student had spent in a typical month over the previous two years participating in each of the art types outside of school hours. See Appendix C for a copy of the arts participation survey.

Research Design

A causal-comparative study was designed in order to investigate the possibility of a causal relationship between arts participation and the emotional intelligence of fifth-grade children. Although causal-comparative studies provide much weaker evidence for causation than do experimental studies, this ex post facto approach for establishing a relationship was necessitated by the facts that the groups studied were already intact so a sample could not be randomized and that the independent variables could not be manipulated.

Within the study, arts education emphasis, gender, and ethnicity of fifth-grade elementary students served as the independent variables and emotional intelligence (as measured by the MSEIT-YV with four subscales, two aggregate scores, and a global score) were the dependent variables. Participation time in the AWFK program and in other art activities (i.e. those art activities outside of the AWFK program) were statistically controlled as covariates in this study. Arts education emphasis was categorized in 6 areas: (a) music, (b) dance, (c) visual art, (d) drama/theatre, (e) a combination of arts, and (f) no arts (i.e. the control group). Emotional intelligence scores were categorized in seven areas: (a) a total/overall score, (b) four subscales representing the four EI abilities or branches (i.e. perceiving emotions, facilitating thought, understanding emotions, and managing emotions branch scores), and (c) two aggregated scores representing combinations of the first and second sets of two subscales each. In other words, the experiential emotional intelligence score is comprised of the perceiving emotions branch score and the facilitating thoughts branch score, while the strategic emotional intelligence score is comprised of the understanding emotions branch score

and the managing emotions branch score. Participation time for both the AWFK program and other art activities were measured in hours for each student for the two years prior to the study's commencement.

Procedures

After submitting a proposal to the Institutional Review Board (IRB) at BYU, I was informed that I would be required to obtain consent for conducting the study from each school district involved rather than going through the normal channels at the university. Research proposals were submitted to research request committees and directors of research, assessment, and evaluation for each of the four school districts and consent was granted before data collection commenced.

Data collection. The fifth-grade students were given the online version of the emotional intelligence measure in groups of approximately 30 within the computer lab of their respective schools. This required an average of one hour of class time per fifth grade class. Use of the computer lab was requested to accommodate the testing.

Participation hours for the previous two years in arts other than at school (e.g. practice, lessons, and activities in music, dance, theater productions, and visual arts) were collected through a survey sent home to the participants' parents/guardians. The due date for the return of the survey to each child's classroom teacher was scheduled so that the surveys could be collected at the time the students were tested in the labs.

Attendance in the AWFK for the previous two years was ascertained from the AWFK specialists and hours of attendance recorded for each child. Confidentiality of students was maintained by using a student ID coded for school, class, and computer and used in conjunction with the information obtained. Only composite data was reported.

Data analysis. Data from the MSCEIT-YV scores, the returned surveys, and AWFK attendance was compiled for each student. I found that 506 of the 645 participants, had completed both the MSCEIT-YV and the take-home survey. Of the 506 students, 433 (85.6%) had participated in the AWFK program and 73 (14.4%) had not (the control group). Of the same 506 students, 222 (43.9 %) were male and 284 (56.1%) were female. Ethnic group 1 (White) was comprised of 340 (67.2%) students and ethnic group 2 (other than White) was comprised of 166 (32.8%) students.

With this information, a 3-way multiple analysis of covariance (MANCOVA) was conducted with two covariates included (i.e. the number of hours in the AWFK program and the number of hours in other art activities).

Descriptive statistics of emotional intelligence scores for each arts participation group were calculated. This analysis allowed us to compare the effects of the different art types by showing the mean EI scores associated with each. MANCOVA was used to determine the main and interaction effects of the categorical variables (AWFK participation, gender, and ethnicity) on multiple dependent variables (the emotional intelligence scores and subscores). Estimates of effect size were computed as a partial eta-squared value for each effect. The eta-squared statistic describes the proportion of total variability in a dependent variable systematically related to the variability of the independent variable.

Univariate *F* tests for each art discipline were examined when a significant main effect or interaction in the preliminary MANCOVA results was obtained. This analysis was conducted to help provide insight into the relationship between the art types and the emotional intelligence of the participants. Multiple line plots were also produced to

graphically show any interactions of ethnicity or gender on the EI mean score for each AWFK art emphasis. All statistical analyses were conducted using SPSS (Statistical Package for the Social Sciences) version 13.0 software.

Results

Research Question 1

To determine whether fifth-grade elementary students who participated in the AWFK program scored higher on the measures of emotional intelligence than those who did not participate (the control group), a MANCOVA was conducted on seven dependent variables: four emotional intelligence sub-scores (perceiving emotions, facilitating thought, understanding emotions, and managing emotions), the two aggregate scores (combinations of the first and second sets of the two subscales) and the overall emotional intelligence scores, with AWFK participation in two levels (participation group and control group) as the independent variable. As stated above, two factors, AWFK Time and Extra Art Participation Time, were entered as covariates. The assumptions of homogeneity of variance and normality were met.

After adjustment for the covariates, a significant difference was found on the seven dependent variables by AWFK participation, F (4, 499) = 9.58, $p < .001$, (Eta = .07). Individuals that participated in the AWFK program had significantly higher mean scores on six of the seven emotional intelligence scores: Facilitating Thought, Understanding Emotions, Managing Emotions, the First Aggregate Score, the Second Aggregate Score, and the overall Emotional Intelligence Score, compared to those who did not participate. Descriptive statistics for these comparisons are listed in Table 4 as well as MANCOVA results, showing a significant difference on all emotional intelligence scores (except the perceiving emotion subscore) by AWFK participation.

Table 4

Means, Standard Deviations, and Inferential Statistics on Each Dependent Variable by AWFK Participation

	Treatment		Control		Inferential Statistics		
Dependent Variable	M	SD	M	SD	F	Sig.	Eta Squared
Perceiving Emotions	58.14	10.68	59.29	10.10	0.74 (112.07)	0.39	0.00
Facilitating Thought	56.45	10.39	53.86	10.74	19.85 (105.96)	*0.00	0.04
Understanding Emotions	46.74	11.24	43.90	10.83	30.17 (119.11)	*0.00	0.06
Managing Emotions	31.09	9.01	28.80	8.69	24.12 (76.81)	*0.00	0.05
First Aggregate Score	114.60	16.03	113.16	17.04	11.79 (256.07)	*0.00	0.02
Second Aggregate Score	77.83	18.47	72.69	17.70	33.26 (318.83)	*0.00	0.06
Emotional Intelligence	192.43	29.66	185.85	31.55	29.25 (852.71)	*0.00	0.06

Note. Number in parentheses represent mean square error. N=433 Treatment: n = 73 Control. *p<.01.

Research Question 2

I predicted a main effect for drama as the art form emphasis for which participation was associated with the highest emotional intelligence scores. To determine whether there was a main effect, a MANCOVA was used on seven dependent variables: four emotional intelligence sub-scores (perceiving emotions, facilitating thought, understanding emotions, and managing emotions), the two aggregate scores (combinations of the first and second sets of the two subscales) and the overall emotional intelligence scores, with the independent variable, AWFK Emphasis in 6 levels (no emphasis, music, drama, visual arts, dance, and a combination of arts). Two variables, AWFK Time and Extra Art Participation Time, were entered as covariates. The assumptions of homogeneity of variance and normality were met.

Means and standard deviations of the emotional intelligence scores classified by AWFK Emphasis are shown in Table 5. A significant difference was found on the seven dependent variables by the individual independent variable, AWFK emphasis F (20, 1582.98) = 4.02, $p < .001$, (Eta = .04). MANCOVA results are presented in Table 6.

Table 5

Means and Standard Deviations on Six Emotional Intelligence Scores by AWFK Emphasis.

Emotional Intelligence	Emphasis	N	M	SD
Facilitating Thought	No Emphasis (Control Group)	73	53.86	10.74
	Music	115	57.92	10.60
	Drama	39	56.03	10.29
	Visual Art	161	55.69	10.07
	Dance	43	60.57	9.84
	Art Combination	75	53.73	10.30
Understanding Emotions	No Emphasis (Control Group)	73	43.90	10.83
	Music	115	50.02	10.55
	Drama	39	42.44	9.63
	Visual Art	161	45.70	11.78
	Dance	43	51.44	7.93
	Art Combination	75	43.50	11.41
Managing Emotions	No Emphasis (Control Group)	73	28.80	8.69
	Music	115	33.69	8.28
	Drama	39	29.47	8.20
	Visual Art	161	30.35	9.48
	Dance	43	31.67	8.62
	Art Combination	75	29.19	8.98
First Aggregate Score	No Emphasis (Control Group)	73	113.16	17.04
	Music	115	115.94	15.74
	Drama	39	117.32	14.07
	Visual Art	161	113.20	16.18
	Dance	43	121.51	13.19
	Art Combination	75	110.18	17.15
Second Aggregate Score	No Emphasis (Control Group)	73	72.69	17.70
	Music	115	83.71	16.65
	Drama	39	71.91	15.49
	Visual Art	161	76.06	19.79
	Dance	43	83.12	15.13
	Art Combination	75	72.69	18.52

Table 5 (continued).

Emotional Intelligence	Emphasis	N	M	SD
Emotional Intelligence	No Emphasis (Control Group)	73	185.85	31.55
	Music	115	199.65	27.69
	Drama	39	189.23	24.47
	Visual Art	161	189.25	30.89
	Dance	43	204.63	22.76
	Art Combination	75	182.87	31.67

Table 6

MANCOVA on Perceiving Emotions, Facilitating Thought, Understanding Emotions, and Managing Emotions, First Aggregate Score, Second Aggregate Score and the Overall Emotional Intelligence Scores by AWFK Emphasis.

	DV	*F*	*p*	Eta Squared
AWFK Emphasis	Perceiving Emotions	1.45	.21	.02
	Facilitating Thought	6.89	.00	.07
	Understanding Emotions	10.41	.00	.10
	Managing Emotions	4.88	.00	.05
	First Aggregate Score	5.57	.00	.06
	Second Aggregate Score	8.83	.00	.08
	Emotional Intelligence	8.72	.00	.08

Post hoc tests were conducted on the four emotional intelligence sub-scores (perceiving emotions, facilitating thought, understanding emotions, and managing emotions), the two aggregate scores (combinations of the first and second sets of the two subscales) and the overall emotional intelligence scores by AWFK emphasis. Students with an emphasis in either Dance or Music scored significantly higher on six of the seven measures of emotional intelligence than those in the other art emphases.

Table 7 shows the resulting significant mean differences on the emotional intelligence scores between the dance participants and the other five AWFK emphases. Table 8 shows the resulting significant mean differences on the emotional intelligence scores between the music participants and the other five AWFK emphases. The No Emphasis group is the control group that did not participate in the AWFK program.

Research Question 3 and 4

To determine whether there was an interaction between AWFK participation and the ethnicity or the gender of the participant, a MANCOVA was used on seven dependent variables: four emotional intelligence sub-scores (perceiving emotions, facilitating thought, understanding emotions, and managing emotions), the two aggregate scores (combinations of the first and second sets of the two subscales) and the overall emotional intelligence scores, with three independent variables, AWFK emphasis, Ethnicity, and Gender. Two variables AWFK Time and Extra Art Participation Time were entered as covariates. The assumptions of homogeneity of variance and normality were met.

After adjustment for the covariates, there was no significant effect on the seven dependent variables for the AWFK emphasis, Ethnicity, and Gender interaction, F (20, 1582.98) = 0.72, p = 0.81, (Eta = .001). Results of the MANCOVA indicated that there

Table 7

Mean Differences on Emotional Intelligence Scores between Participants of Dance and Participants of Other AWFK Emphases

Dependent Variable	Other AWFK Emphasis	Mean Difference	Std. Error	*p*
Facilitating Thought	No Emphasis	6.71	1.98	.010*
	Music	2.65	1.85	.704
	Drama	4.54	2.28	.349
	Visual Art	4.88	1.77	.066
	Art Combination	6.84	1.97	.008*
Understanding Emotions	No Emphasis	7.55	2.09	.005*
	Music	1.42	1.94	.978
	Drama	9.01	2.41	.003*
	Visual Art	5.74	1.87	.027*
	Art Combination	7.94	2.08	.002*
First Aggregate Score	No Emphasis	8.35	3.07	.073
	Music	5.57	2.86	.372
	Drama	4.19	3.53	.843
	Visual Art	8.32	2.74	.031*
	Art Combination	11.33	3.06	.003*
Second Aggregate Score	No Emphasis	10.42	3.45	.031*
	Music	-.60	3.21	1.000
	Drama	11.21	3.97	.055
	Visual Art	7.06	3.08	.199
	Art Combination	10.43	3.43	.030*
Emotional Intelligence	No Emphasis	18.78	5.64	.012*
	Music	4.98	5.25	.934
	Drama	15.40	6.49	.168
	Visual Art	15.38	5.04	.029*
	Art Combination	21.76	5.61	.002*

* The mean difference is significant at the .05 level.

Table 8

Mean Differences on Emotional Intelligence Scores between Participants of Music and Other AWFK Emphases

Dependent Variable	Other AWFK Emphasis	Mean Difference	Std. Error	Sig.
Understanding Emotions	No Emphasis	6.12	1.63	.003*
	Drama	7.59	2.02	.015*
	Visual Art	4.32	1.33	.001*
	Dance	-1.42	1.94	.987
	Art Combination	6.52	1.61	.001*
Managing Emotions	No Emphasis	4.90	1.33	.003*
	Drama	4.22	1.64	.107
	Visual Art	3.34	1.08	.026*
	Dance	2.02	1.58	.800
	Art Combination	4.51	1.31	.009*
Second Aggregate Score	No Emphasis	11.02	2.68	.001*
	Drama	11.80	3.32	.006*
	Visual Art	7.66	2.19	.007*
	Dance	.60	3.21	1.000
	Art Combination	11.03	2.66	.001*
Emotional Intelligence	No Emphasis	13.80	4.39	.022*
	Drama	10.42	5.44	.393
	Visual Art	10.40	3.58	.044*
	Dance	-4.98	5.25	.934
	Art Combination	16.79	4.36	.002*

* The mean difference is significant at the .05 level.

was no significant interaction between AWFK emphasis and Gender, F (20, 1582.98) = 1.14, p = 0.29, (Eta = .01); or between AWFK emphasis and Ethnicity and Gender, F (4, 447) = 0.89, p = 0.47, (Eta = .01). However, a significant interaction exists on the seven

dependent variables for the AWFK emphasis by ethnicity interaction, F (20, 1582.98) = 2.12, $p < 0.01$, (Eta = .02). MANCOVA results are presented in Table 9 showing there was a significant interaction on the subscore of Facilitating Thought and that a significant effect was approached on Understanding Emotions for the AWFK emphasis and Ethnicity interaction.

Table 9

MANCOVA on Perceiving Emotions, Facilitating Thought, Understanding Emotions, and Managing Emotions, First Aggregate Score, Second Aggregate Score and the Overall Emotional Intelligence Scores by AWFK Emphasis and Ethnicity.

	DV	F	Sig.	Eta
AWFK Emphasis and Ethnicity	Perceiving Emotions	0.92	.47	.01
	Facilitating Thought	2.75	.02*	.03
	Understanding Emotions	2.21	.05*	.02
	Managing Emotions	0.30	.91	.00
	First Aggregate Score	1.19	.31	.01
	Second Aggregate Score	0.69	.63	.01
	Emotional Intelligence	0.93	.46	.01

Multiple line plots (shown in Figures 1 and 2) were generated to graphically show the interactions of ethnicity and AWFK art emphasis on the two EI mean scores that showed and approached significant difference (Facilitating Thought and Understanding Emotions). In both plots, the interaction is shown where the *other* ethnic group with a dance emphasis scored higher than the white ethnic group with a dance emphasis on the two emotional intelligence subscores.

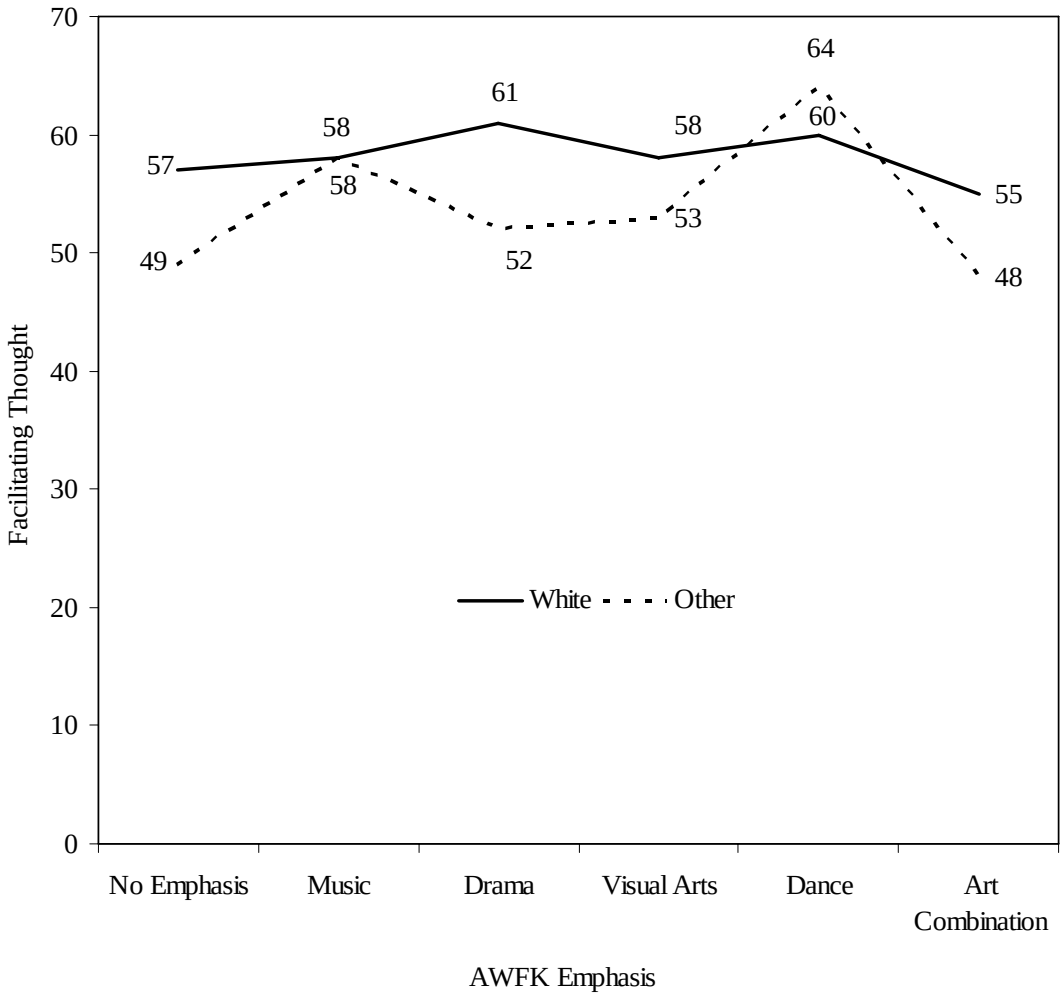

Figure 1. Interaction plot for Ethnicity and AWFK Emphasis on Facilitating Thought.

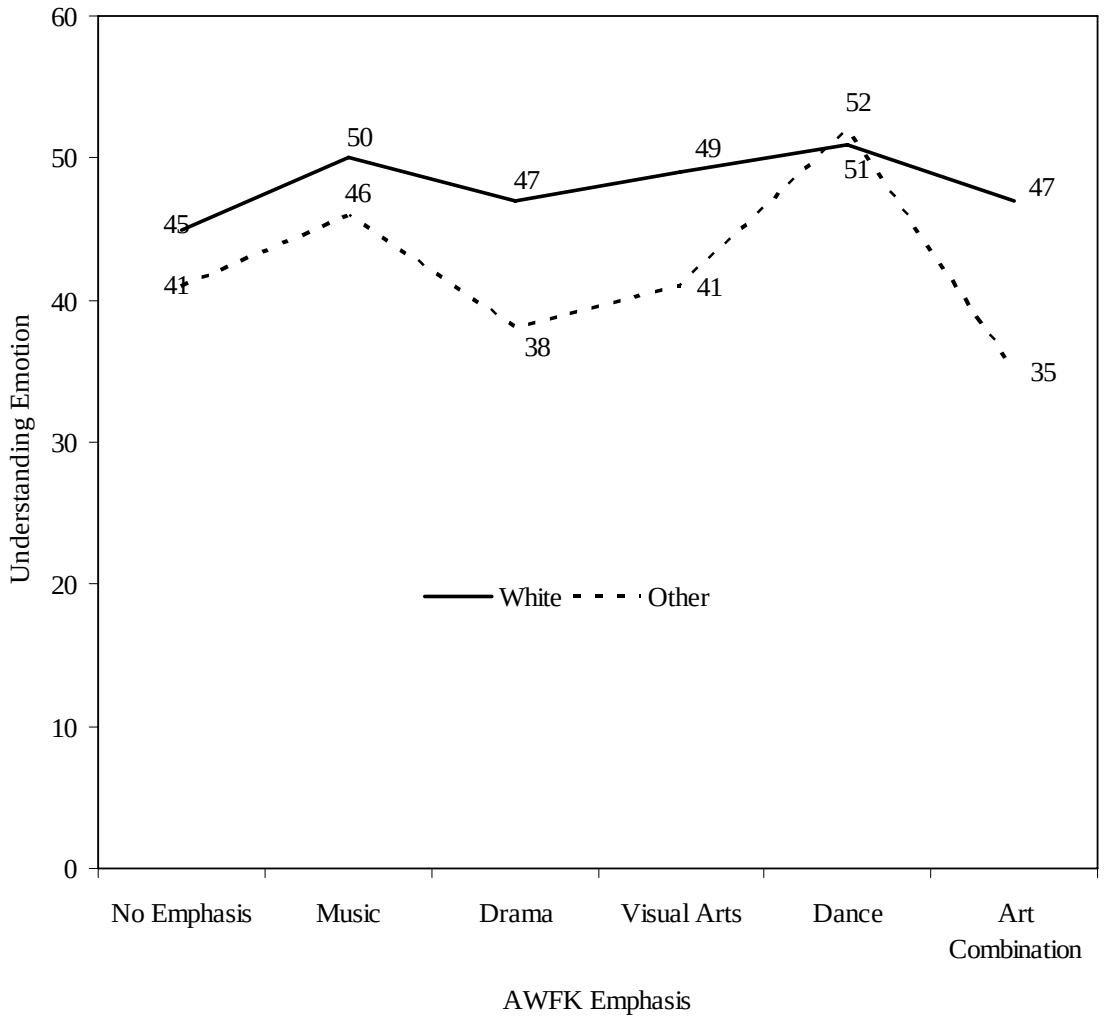

Figure 2. Interaction plot for Ethnicity and AWFK Emphasis on Understanding Emotion

Discussion

Arts participation in this study is clearly related to higher emotional intelligence. From the results of the analysis of question 1 of the study, it is clear that the fifth-grade elementary students who participated in the Art Works for Kids program scored significantly higher on six of the seven measures of emotional intelligence than those who did not participate in the arts program. We can conclude from these results that the students in the AWFK program specifically demonstrated greater ability in using emotion to facilitate thought, understanding emotions, and managing emotions and also demonstrated a higher degree of strategic, experiential, and overall emotional intelligence.

Statistical significance does not necessarily imply that the result is important in practice. Practical significance can be understood as the degree to which the size of the effect is meaningful in the terms of educational theoryor practice (Kirk, 1996). For an *F* statistic, small, medium, and large effects have partial eta-squared values beginning at .010, .059, and .138, respectively in the behavioral sciences (Cohen, 1992; Kirk, 1996). When these cut off points are applied to the partial eta squared values reported in Table 6, a medium effect is shown for facilitating thought, understanding emotions, strategic emotional intelligence, experiential emotional intelligence, and overall emotional intelligence; while a small effect is shown for perceiving emotions and managing emotions by AWFK emphasis (i.e. the difference between the means of the AWFK group and the control group).

Fan (2001) provides guidelines for combining significant test outcomes with effect size measures. He states that when there is a significant outcome and a medium

effect size, “it is very unlikely that the observed effect size is due to statistical chance” and that “the magnitude of effect is practically meaningful in many areas of social and behavioral sciences” (p. 282). Using these guidelines, we can conclude that the effect of higher scores for facilitating thought, understanding emotions, strategic emotional intelligence, experiential emotional intelligence, and overall emotional intelligence for those who participated in the AWFK program is meaningful both statistically and practically.

Another factor in determining practical significance is the cost-effectiveness of the program. Decision-makers should consider the cost of an art program in relation to an estimated medium overall effect and ask themselves if this effect is worth the price of the program. In light of the value of emotional intelligence for children, such an effect could be worth a great deal. Emotional intelligence is positively correlated with grades and academic performance, varies inversely with deviant behavior, predicts prosocial and positive behavior as well as social competence (Mayer, Salovey, & Caruso, 2004). Any program that produces a medium effect on gains in these important areas, such as the AEFK program, should easily be considered of tremendous worth to a child’s education.

Because there was no significant statistical difference in the scores of the AWFK participants and the control group in perceiving emotions, we can conclude that the two groups had a comparable level of ability in this emotional skill. This finding is not surprising when the results of other studies are taken into account. The authors of several other studies (e.g. Boone & Cunningham,1998; Cunningham & Sterling, 1988; Hortacsu & Ekinci, 1992; Tergwogt & Grinsven, 1988; Van Meel, Verburgh, & De Meijer, 1993) have found that recognition of emotions improves with the age of children reaching the

same ability level as adults by age twelve. Because the fifth-grade children were all between the ages of ten and eleven, their abilities in this area may be more developmental, where the factor of age has significant influence on their perception of emotion rather than being influenced by arts participation. From their study, Tergwogt and Grinsven (1988) speculated that the factor of experience had no significant influence on the recognition of emotions in music by children and adults. It is also plausible to assume that the experiences the fifth-grade children had in the AWFK program had no significant influence on the perception of emotion as assessed by the MSCEIT-YV. Because the instrument is currently in the norming process, I recommend that those analyzing the data at Multi-Health Systems provide relevant information to researchers interested in the perception of emotion in children as soon as it is available. This information may provide insights into whether there is a significant affect of age on the ability to perceive emotion.

Alternatively, the ability to perceive emotion may be more frequently emphasized in the elementary curriculum than the other emotional intelligence abilities, thus, the skill may be developed through participation in subjects other than fine arts. Current curriculum standards indicate this may be the case.

The lack of national fine arts standards related to the emotional intelligence abilities other than perceiving emotion (utilizing, understanding, and managing emotions) is a disparity highlighted in the literature review (MENC, 1994). Although there seems to be more of a balance of standards addressing each of the emotional abilities in the Utah core curriculum standards, other state curriculum boards may follow the national standards more closely and not emphasize emotional abilities other than perceiving

emotion. I recommend that standards developers incorporate standards that directly prescribe outcomes related to each of the four main abilities of emotional intelligence, rather than solely focusing on the ability to perceive emotions, within the national and state standards for arts education. My hope is that, in so doing, school administrators and arts specialists will be more systematically focused on all these important outcomes for well-rounded emotional intelligence.

Even without a significant difference in the ability to perceive emotions, the AWFK group as a whole also scored significantly higher than the control group in the two aggregate scores, experiential emotional intelligence (EEIQ) and strategic emotional intelligence (SEIQ), as well as the overall emotional intelligence score (EI). The purpose of the aggregate scores is to ". . . enable the administrator to gain insight into possible differences between a) a client's ability to perceive and utilize emotions and b) his or her ability to understand and manage emotions" (Mayer, Salovey, & Caruso, 2002, p.18). The EEIQ indexes how accurately a person can identify and express emotion and compare that emotional information to such sensory inputs as colors or sounds. The SEIQ indexes how accurately people understand what emotions signify or mean and how their own emotions can be managed. Again, because the youth version of the instrument is not yet normed, we may not be able to gain the insight into the difference between these ability areas in a particular group. However, the fact that the AWFK group scored significantly higher than the control group in these emotional intelligence areas tells us that those participating in the arts program have not only greater overall emotional intelligence, but also greater experiential and strategic emotional intelligence.

For research question 2, I had predicted that the students in the drama emphasis would outperform the other students. One reason for this prediction was that the largest portion (46 percent) of the related primary studies I reviewed in the literature review suggested the emotional ability outcomes of drama participation (Baum & Owen, 1997; Burton, Horowitz, & Abeles, 2000; Gourgey, Bosseau, & Delgado, 1985; Hortacsu & Ekinci, 1992; Jackson, 1992; Milner, 1982).

However, the finding that students participating in dance and music emphases, rather than the drama emphasis, in the AWFK program scored significantly higher on six of the seven emotional intelligence scores than the students in the other art emphases was contrary to my prediction. This finding is particularly illuminating in light of the imbalance of availability of instruction in the two art forms. As stated in the literature review, dance was available in only about 20 percent of the elementary schools in the U.S. in 2000, while music was available in 94 percent, a large discrepancy. At the same time, full-time specialists were employed in only 5 percent of the elementary schools for dance and in 67 percent of the schools for music (Carey, Kleiner, & Burns, 2002). According to these statistics, there is a great disparity of support in our elementary schools for the two art forms related to the participants highest emotional intelligence scores. I recommend that decision-makers look closely at the potential impact of participation in these art emphases in their students' emotional intelligence when allocating or seeking funds to support the integration of the arts in their schools.

For research question 3, I found a significant interaction on the two emotional intelligence abilities of Facilitating Thought and Understanding Emotions between AWFK emphasis and ethnicity, specifically regarding the difference between those

students of a white origin and an ethnic origin other than white. The students with a dance emphasis and an ethnic origin other than white scored significantly higher than those of white origin on these two emotional abilities. Although the difference between the ethnic groups in these areas was statistically significant, it is not accompanied by practical significance in that the effect size of the differences was small (Eta squared = .02). Therefore, the statistical significance could have been the result of statistical power (large *N*). Fan (2001) warns that in such a case "considerable caution is warranted in the interpretation of the statistically significant findings, and they should not be interpreted to mean something practically meaningful" (p. 282).

Although the original research question asked only whether an interaction existed between arts participation and the ethnicity of the students, I broke down the *other* ethnicity group into subgroups (i.e. Hispanic, Asian/Pacific Islander, Native/Aboriginal, Black/African American, Multiracial, and other), so that the AWFK emphasis by ethnicity interaction could be more closely examined. The ethnic group participating in the dance emphasis with the highest mean for understanding emotion was the *other* subgroup. The ethnic group participating in the dance emphasis with the highest mean for using emotion to facilitate thought was the Asian/Pacific Islander group. This may suggest that the interaction is not caused by any one ethnic group.

With the factor of the ethnicity of the students in mind, it may be reasonable to speculate that cultural aspects of the art of dance may account for the interaction found. However, no studies reporting on the effects of these cultural differences were specifically investigated for this study. The two dance studies highlighted within the literature review (Boone & Cunningham, 1998; VanMeel, Verburgh, & Meijer, 1993) did

not focus on the ethnicity or cultural backgrounds of the participants. This is an area that should be further investigated.

It was also interesting to note that regardless of the type of art in which the students participated, the group with Asian/Pacific Islander ethnicity produced the highest means for four of the emotional intelligence scores: perceiving emotion, using emotion to facilitate thought, experiential emotional intelligence, and overall emotional intelligence. If future studies find similar results, aspects of the culture of this ethnic group should be investigated as possible influences of emotional intelligence.

For research question 4, no significant interaction was found on the EI scores between AWFK emphasis and gender, although girls scored moderately higher on six of the seven emotional intelligence scores than boys. This lack of interaction suggests that both males and females benefit from participation in the arts program. My assumption is that, although females tend to score higher on such measures than males (Mayer, Salovey, & Caruso, 2002, p.30), the difference is not significant enough to conclude that emotional intelligence is gender-specific. This means that the same opportunities for enhancing emotional intelligence within the elementary school should be afforded students of both genders.

Limitations and Future Research

The results of the study are expected to be generalizable to the population of fifth-grade students within the school districts from which the participants are sampled. Because the Art Works for Kids program, and the other art experiences of this sample of children may differ from the art experiences of other children in other locations in various ways (e.g. teaching methods used, degree of integration within curriculum, emphases,

time commitment, and objectives) the results may not be generalizable to other populations of elementary children.

Several factors related to the study could not be controlled and may be considered limitations. The first factor to consider in this regard is the nature of the research design used. The basic design of a causal-comparative research study is to select a group that has the independent variable (the experimental group or the AWFK participants) and then select another group of subjects that does not have the independent variable (the control group or the Students who did not participate). The two groups are then compared on the dependent variable (emotional intelligence). Causal-comparative research is a useful tool that can be employed in situations where experimental designs are not possible. It is important to remember, however, that demonstrating a relationship between two variables (even a very strong relationship) does not prove that one variable actually causes the other to change. Thus, in the present study I have not proven that arts participation increases emotional intelligence, but rather, I have demonstrated a relationship between participation and higher scores on emotional intelligence measures, thereby establishing a possible cause for the increase. It was important to establish this relationship in this study as a precursor to experimental research on the topic because such an endeavor had not been attempted previously.

Another limitation of causal-comparative research is that, since the pupils are not randomly placed in the groups, the groups can differ on other variables that may have an effect on the dependent variable. The variables of age, gender, and ethnicity were built into the design of the study and found to have little effect on the emotional intelligence outcomes. In addition, two covariates, participation time in the AWFK program and in

other art activities (i.e. those art activities outside of the AWFK program) were statistically controlled in this study. One other possible influence on the children's emotional intelligence was the amount of emotion-coaching they received from their parents or other daily associates. Developing and administering an instrument to determine the level of emotion-coaching each student received outside of school would have provided insights into whether this possible mechanism contributed any influence on the students' emotional intelligence. Although such an effort was not considered for this study, I encourage researchers to conduct future experimental studies focusing on the role emotion-coaching may have in developing emotional intelligence.

Another possible influence on a child's emotional intelligence, sports participation, has been suggested. Although no related data were gathered in this study, this may be another important area of a child's experience to investigate in future related research.

Beyond answering the four research questions, the findings of this study invite further questions to study regarding the relationship of art participation and the emotional intelligence of children. One such question arises because the covariates of the study were found to be unrelated to the emotional intelligence scores. It appears that the amount of actual hours of participation within the program and in art activities outside of the program did not systematically relate to the emotional intelligence scores. Does this mean that the quantity of participation is not as important as other factors such as the teaching methods, or structure of the arts program? Future research efforts could examine the role of quantity versus type of program or teaching strategy in arts instruction in order to address this question.

For research question 1, participants in the AWFK program scored significantly higher on six of the seven emotional intelligence scores than the nonparticipants regardless of their art form emphasis. What is it about the AWFK program that produced such results? Is it the main focus of the program, the integration of the arts into the elementary curriculum that makes the difference? Or is it a structural feature of the program whereby arts specialists are employed within the school?

Another question that naturally arises from this finding is, "Why was there no difference in the Perceiving Emotion scores?" One could speculate as I have that the emotional skill of perceiving emotion could possibly be a developmental skill that is fairly consistent at a certain age of a child or that the skill of identifying emotion is taught in other curriculum subjects in the elementary school or simply more actively socialized than the other emotional skills. These possibilities or other explanations should be further investigated in future studies.

For research question 2, both dance and music students scored significantly higher on six of the seven emotional intelligence scores than the students in the other art emphases. Could this same finding be replicated in studies of other art programs? If so, a change in the current status of elementary arts education would be implicated. As stated in a previous section, music and visual arts instruction were available in most of the nation's public elementary schools in the year 2000 (94 and 87 percent respectively), while dance and drama/theater were only available in one-fifth of these schools (20 and 19 percent respectively). Perhaps more emphasis should be placed on dance in the elementary school curriculum in order to make its benefits available to more children. Future studies could focus on the particular mechanisms of dance and music participation

that may contribute to a child's emotional intelligence. One question to address is whether specialists in dance and music tend to be more emotion-coaching than specialists in other art emphases.

The finding that the ethnicity of the students interacted with the AWFK emphasis on two of the EI scores leads to questions regarding cultural aspects of emotional learning. Would my finding be replicated in other studies? If so, what are the cultural aspects of dance that may contribute to a child's emotional intelligence?

No significant difference was found on the EI scores by AWFK emphasis and gender, although girls scored significantly higher on six of the seven emotional intelligence scores than boys. Possible explanations for this lack of interaction should be investigated in future studies.

This study may serve as a pattern to be replicated in other locations involving other fine art programs in order to further establish the relationship of elementary arts participation to elementary students' emotional intelligence. After this relationship is established, specific mechanisms inherent in various art programs can be individually studied to provide evidence of the effects of certain teaching methods within arts programs on children's emotional intelligence. Only then can the effects of these methods of art instruction and integration within the curriculum be compared to help determine best practices and to inform educational policy decisions related to the arts and emotional learning within the elementary school.

The results of this study suggest that arts programs such as Art Works for Kids can play a vital role in developing our children's emotional intelligence. Potential effects of such programs include increased abilities to understand, utilize, and manage emotional

information. When these abilities are increased, further positive results related to academic performance, prosocial behavior, and social competence is likely as prior research has suggested (Mayer, Salovey, Caruso, 2004). These benefits may be more important to a child's success and well-being than any of the other well-researched positive outcomes of arts education.

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Appendix A Consent Statement (Cover Letter)

Dear ParentGuardian:

We would like to invite your child, _____, to participate in a study that will investigate the relationship of *fine arts* participation and *emotional intelligence*.

One of the instruments to be used in the study, the *Mayer-Salovey-Caruso Emotional Intelligence Test- Youth Version (MSCEIT-YV),* has been developed in an effort to ascertain the level at which children perceive, use, understand and manage emotions. The other instrument is a survey used to ascertain the background of the child in the arts (i.e. how many hours she has participated in music, drama, dance and/or visual art programs and education). A copy of this survey is attached. The information obtained from the completed instruments will help researchers determine whether a relationship exists between fine arts participation and the emotional intelligence of the child, and the strength of such a relationship.

Children between the ages of 10 and 12 are invited to participate. Each child will be administered the Emotional Intelligence test and a survey. This should take approximately one hour. Each participant will receive a candy bar or a pencil as a token of appreciation for participating and will be given a copy of the results of the tests taken upon request when they become available.

There are no risks associated with participation in this study. It is hoped that the use of the information obtained from the study will add to the knowledge of the value of fine arts education and emotional learning within the elementary school.

Participation in the study is voluntary. No penalties will result from non-participation or withdrawal. Strict confidentiality will be observed. No individual identifying information will be disclosed. All identifying references will be removed and replaced by control numbers. All data collected will be stored in a secure area with access limited to those associated with the study.

If you have any questions regarding this study, you may contact Susan J. Clark in the Faculty Center, 4450 WSC, at 422-7825 or at home at 374-5016.

If you have questions regarding your child's rights as a participant in a study, you may contact Dr. Shane Schulthies, IRB Chair, at 422-5490**.**

By signing below, you give your consent for your child to participate in the study and acknowledge that what is expected of her has been explained to her and that she has given her consent to participate.

Parent/Guardian_____ Participant _____

Appendix B Arts Participation Survey

Dear Parent/Guardian,

Please fill out the following information for your fifth-grade student regarding his/her arts participation and return the completed form to your child's teacher. Please see the attached consent letter to find out how the information will be used and to give consent for your child's participation.

In a typical month over the past two years, how many total hours have you (the student) participated in the following activities outside of school hours?

For example, if you have had piano lessons once a week for half an hour and have practiced the piano for half an hour each week day and have had one recital where you performed for fifteen minutes, your total music participation time for the month would be 12 hours (please round to the nearest hour).

Please write the number of participation hours for a typical month in the blanks that follow each type of art:

Music instruction, practice, and performance (including instrumental and vocal music)

Number of hours_____

Dance instruction, practice, and performance (including ballet, ballroom, tap, clogging, folk dancing, etc.)

Number of hours_____

Drama/Theatre instruction, practice, and performance

Number of hours_____

Visual Art instruction and creation (including painting, drawing, sculpting, ceramics, crafts, etc.)

Number of hours_____

Total of all participation hours (add number of hours in 1, 2, 3, and 4) _____

Please indicate where the student participates in the arts:

School only____ home/private lessons only____

both school and home/private lessons____

Thank you for your participation!

Teacher Name_____ School_____