

2006

Assessing the Impact of a Visual Arts Family-Focused Pre-Kindergarten Intervention

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Assessing the Impact of a Visual Arts Family-Focused
Pre-Kindergarten Intervention

By

Gigi M. David

A dissertation submitted to the Department of Leadership, Counseling and Instructional
Technology

in partial fulfillment of the requirements for the degree of

Doctor of Education

In Educational Leadership

UNIVERSITY OF NORTH FLORIDA
COLLEGE OF EDUCATION AND HUMAN SERVICES

December 2006

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ACKNOWLEDGEMENTS

Completing a doctorate degree has been a goal of mine for a very long time. It is a goal that has required much sacrifice and much support. I am most grateful for my parents, Eduardo and Georgina Morales, who inspired and nurtured my love of learning from the time I was a child. Education was highly valued in my home and excellent grades were expected. In this environment, I developed a strong work ethic and set high standards for myself.

Throughout my educational career, I have met several educators who have had a profound impact on my understanding of the educational process and how this translates to children and families. First of all I would like to thank Sandy Merrill for believing in me as a beginning teacher and providing me my first opportunity in educational administration. Susan Currie and Linda Nelson are among the finest elementary educators that I have ever known and I am eternally grateful for the guidance that they provided for me early in my career. Later when I attended the University of Florida pursuing a specialist degree, I encountered Dr. Kristen Kemple and Dr. Lynn Hartle. These two professors invested in me and as a result, I accomplished more than I thought possible at the time.

At the University of North Florida, several key people come to mind. The highly qualified members of my committee included Dr. Gary Paulson, Dr. Richard Chant, Dr. Cathy O'Farrell and Dr. Kathe Kasten. All of these professors were willing to engage in all of the necessary conversations so important to this process. Dr. Kathe Kasten, my chair, was an unbelievable support always giving me excellent feedback in a very timely

manner. We met weekly for updates, requested clarification or additions that needed to be made. Each meeting was stimulating, thought provoking and provided an opportunity for growth in my understanding of all that I had researched and read in the past year. Dr. Cathy O'Farrell was like a mom full of encouragement and expecting me to succeed. Dr. Richard Chant connected with the emotional aspects of my study and helped me carefully analyze the qualitative aspects of the dissertation design. This support network made the dissertation process a rewarding experience.

Another key person in this process was not on my committee but without her approval and support, this study would not have been possible. Dr. Cheryl Fountain, Executive Director of the Florida Institute of Education (FIE), presented me with an opportunity to conduct my dissertation study as part of an early learning grant. As a result of this invitation, I designed an intervention that fit within the parameters of this family involvement focused grant. At FIE, I was also blessed with the assistance of Dr. Stephanie Wehry who helped me tremendously with data analysis. I am truly thankful.

Last but not least are my two amazing children and my supportive and loving best friend and husband. My family encouraged me, tolerated me, pushed me and loved me throughout this long commitment and I am forever grateful. I certainly would not have made it without them. Kimberly Michelle David, Matthew Charles David and Charles David are my anchors and sails. Thank you for helping me navigate to this most treasured accomplishment.

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ABSTRACT

This study examined the effect of a visual arts, family-focused school readiness intervention on the parental efficacy and level of family involvement of low-income families. A second, primary focus of the study was to test the potential of academically focused experiences in the visual arts to increase the basic concept development of young children. To increase accessibility, the intervention was conducted in a neighborhood library.

The research design for this descriptive study included qualitative and quantitative components. Data collection consisted of a non-randomized one group pre-test/posttest design from students on a standardized instrument and from primary caregivers using self-report questionnaires. Other data collection sources included field notes documenting observations made during implementation collected by the investigator, parent home engagement data in the form of a weekly survey filled out by adult participants and weekly phone calls monitoring any issues or questions regarding the completion of take-home activities.

The results of this relatively small sample using the visual arts to build basic concept knowledge indicate that, given a larger sample, this approach may prove to be a promising strategy to use with young children and their families. The average raw score gain on the student basic concept scale was 8 points at the end of the seven-week intervention. The parent surveys indicated that almost all books sent home were read each week and an average of three home learning activities per book were completed between sessions. The majority of parents commented at least once on the *At-Home*

Surveys about increases in positive interaction with their children while engaged in the home learning activities. Enhancing the parent-child relationship begins with the sharing of positive experiences. Comments made by adult participants indicated that parents felt empowered to better support their child's learning by participating in this experience.

CHAPTER I

INTRODUCTION

This was a descriptive study of the design and impact of a visual arts, family-focused school readiness intervention. The goal of the intervention was to enhance parental efficacy and increase the level of family involvement of low-income families and to increase the school readiness of their young children. This study was conducted in a library serving a low-income neighborhood population in Jacksonville, Florida. The participants included a sample of the children and parents/primary caregivers of the pre-kindergarten students. The children attended nearby day care/preschool centers that feed into St. Clair Evans Academy and Carter G. Woodson Elementary School at the time of recruitment for the study.

Background of the Study

Enhancing school readiness of all children is necessary to achieve a critical national educational goal that stated “by the year 2000, all children in America will start school ready to learn” (National Education Goals Panel, 1997, p. 1). Increasing school readiness will help reduce the achievement gap that exists between socio-economic,

racial and ethnic groups. As defined by the National Education Goals Panel (NEGP), readiness for school includes the following: (a) ready children, (b) ready schools, and (c) family and community engagement that support the development of children. A comprehensive view of school readiness involves a well-developed understanding of the scientific knowledge of child development. This knowledge includes the impact of relationships, genetics, environment and experiences on the developing child (Shonkoff & Phillips, 2000).

Ready children are those who have sufficiently developed in the following domains: physical well-being and motor development, social and emotional development, approaches to learning, language development, cognition and general knowledge. Family and community engagement goals are met through the following objectives defined by the NEGP (1997):

1. All children will have access to high-quality and developmentally appropriate preschool programs that help prepare children for school.
2. Every parent in the United States will be a child's first teacher and devote time each day to helping such parent's preschool children learn, and parents will have access to the training and support they need.
3. Children will receive the nutrition, physical activity experiences and health care needed to arrive at school with healthy minds and bodies to maintain the mental alertness necessary to be prepared to learn.... (p. 1)

Defining the concept of ready schools includes sustained communication between home and school, individualized instruction, and developmentally appropriate experiences.

Ready schools embrace a multi-faceted approach to prepare young children for school success.

Family engagement, a component of school readiness, varies greatly among racial, ethnic and socio-economic groups. Despite a myriad of research supporting the positive impact of parental involvement (Comer & Haynes, 1991; White, Bush, & Casto, 1985), many parents do not perceive their involvement as necessary or beneficial. Hoover-Dempsey and Sandler (1997) suggested that the psychological basis of parental involvement is predicated on parents' motivational beliefs, which include their perceptions of invitations for involvement as well as their perceptions of the barriers that exist in their daily lives. A parent's motivational belief construct is composed of sense of responsibility to be involved and sense of efficacy regarding helping the child succeed. The other important factors impacting motivation to be involved include perceived invitations to be involved by the teacher and school, knowledge base for supporting the learning process, and perceptions regarding the complexity of personal life circumstances (Hoover-Dempsey et al., 2005).

One component contributing to the achievement gap of young children living in low-income homes is their lagging school readiness. This deficit in school readiness is exacerbated by a lack of parental involvement (Coley, 2002). Educators continue to explore intervention methods to increase the parental involvement of all families. These programs tend to be narrowly focused and short-lived. A more successful approach may be to engage parents and children in ways that empower families by acknowledging and affirming their strengths, helping them capitalize on their available resources, expanding

their role construction and increasing their sense of parental efficacy by building their capacity to enhance the readiness of their children for school success.

Much of the research regarding family involvement has used non-experimental methods and has focused on the value of increasing parent participation in already existing early intervention programs. Many programs follow a deficit model. Few programs have systematically addressed the capabilities of parents to be effective teachers for their children who are at risk or parents' motivational beliefs regarding involvement (Dunst, Trivette, & Deal, 2003). Issues addressing the long-term benefits in terms of "cost savings and better maintenance of benefits" regarding family involvement have not been measured. More rigorous research is needed to provide the scientific evidence to support the common claims that family involvement in early intervention programs "result in greater benefits for children" (White, Taylor, & Moss, 1992).

Educators struggle to motivate parents to attend an intervention that the parent does not perceive as being beneficial. Barriers include negative personal school experiences, lack of time, knowledge and skills and lack of resources (Hoover-Dempsey et al., 2005). Free books and materials may lure parents initially, but parents need to perceive the benefits beyond a few resources in order to change behavior and remain involved in their children's educational process. Program designers must take into account the realities of family life and address the barriers to facilitate family participation (Amatea, Smith-Adcock, & Villares, 2006). Non-threatening and culturally congruent approaches should also be explored to increase participation of reluctant families.

The visual arts may be perceived as a non-threatening and potentially very engaging medium to attract parents and children. The visual arts serve as a natural medium for young children to express their thoughts. Young children are dominated by perceptions taken in through their senses (Vygotsky, 1978). Visual art provides an avenue for children to focus on the most salient characteristics of their perceptions. The visual arts also foster self-direction, task persistence, and creative and inventive thinking (Goldhawk et al., 1998). According to the Partnership for 21st Century Skills (2003), the skills needed for the workforce of the 21st century emphasize the ability to think and problem solve, including creativity and intellectual curiosity and the ability to be self-directed and adaptable. Within the school readiness domain of approaches to learning and cognition, the link with skills and dispositions encouraged through the visual arts is quite evident. Another interesting phenomenon worth exploring is the apparent similarities that exist between the elements of the visual arts and basic concepts that help define school readiness for young children.

The first step in reaching parents is recruiting them to be involved. If their parental role construction and efficacy can be expanded through a non-threatening, highly engaging intervention designed to increase family involvement, then they may be more motivated to participate and remain involved. The collaborative aspect of such a program could also help to enrich the parent-child relationship and expand the social network of the adult participants. According to Shonkoff and Phillips (2000), early experiences are critical for the overall well-being and cognitive growth of children. “When parents, teachers, students and others view one another as partners in education, a caring community forms around students and begins its work” (Epstein, 1995, p. 1).

Purpose of the Study and Research Questions

The purpose of this study was to determine if a visual arts, family-focused school readiness intervention could expand the parental sense of responsibility and efficacy of low-income families to increase their level of involvement in supporting the academic learning of their children outside of school. A second primary goal of the intervention was to increase children's knowledge of basic concepts using the visual arts as a guiding structure. The following research questions were addressed in this study.

1. Does a visual arts, family-focused school readiness intervention impact families' level of involvement?
2. Does a visual arts, family-focused intervention impact children's basic concept knowledge?
3. Is an increase in parental involvement and/or parental efficacy associated with an increase in children's basic concept knowledge?

Significance of Research

This was a preliminary study of the potential of a visual arts intervention to engage low-income families and increase their sense of parental efficacy and their level of involvement. It was also a study to test the potential of academically focused experiences in the visual arts to increase the basic concept development of young children. The results of this study provide the basis for a focused research effort on the impact of the visual arts on specific school readiness gains in mathematics, science and literacy. The results of the study help to inform parent involvement program designers of a non-

threatening and culturally congruent venue to engage low-income parents and increase the school readiness of their young children.

Study Design and Methodology

The present study was a subset of an Early Learning Opportunities Act grant awarded to the Jacksonville Children’s Commission on behalf of the Jacksonville Early Literacy Partnership to serve 100 families in a low-income neighborhood in the city of Jacksonville, Florida. The goal of this project was to increase family involvement “in the learning and development of their children.” This family involvement design targeted a portion of the 100 families and addressed this goal by leveraging community resources to provide broader and deeper experiences focused on the visual arts and thinking skills. This study measured the impact of the family-focused intervention on parental efficacy, family involvement and the basic concept development of their participating children. The participants for this study were the children entering kindergarten who attended the day care/preschool centers near St. Clair Evans Academy and Carter G. Woodson Elementary School and their parents. St. Clair Evans Academy and Carter G. Woodson are public elementary schools located in a high-poverty region of Northeast Florida.

Data were collected by trained assessors before and after the intervention using the following instruments: *Bracken Basic Concept Scale-Revised –School readiness composite subscale* (SRC) (Bracken, 1984, 1998); *The Parental Self-Efficacy for Helping Children Succeed in School Scale* (Hoover-Dempsey; modified for young children by James Young, 2005); and the *Family Involvement Questionnaire – Home-Based Subscale*

(Fantuzzo, McWayne, & Perry, 2004). Home learning activity information was collected on the *At-Home Survey* weekly from the adult participants. Monetary incentives were provided for adult participation in the assessment. Parents signed up for interviews at a time that was convenient for them. Parents were interviewed, and all responses are considered self-report. Demographic information was collected on the adult participants. Children were assessed by trained assessors in their preschools prior to the start of the intervention and again following the intervention. The student assessment lasted approximately 15 minutes.

I recorded brief descriptions of the sessions. Field notes became part of the data for analysis. I paid particular attention to the collaborative experiences designed to enhance the parent-child relationship.

The study was designed to use inferential statistics (Creswell, 2002). The small number of actual participants in the intervention limited the use of inferential statistics in the data analysis.

Descriptive tables (Creswell, 2002) include results addressed in the following questions:

1. What was the attendance and survey return rate for each participant?
2. How many times was the target book read between sessions as compared to the second book included in the learning packet?
3. How many times were the learning activities completed between sessions for each book in each learning packet?
4. What gains did children make on the readiness skills measured on the Bracken Basic Concept Scale?

Definition of Terms

The following terms are defined as they were used in this study.

- Basic concepts For the purpose of this study the basic concepts included letters, numbers/counting, shapes, colors, sizes and comparisons.
- Collaborative activities Shared activities or experiences between primary caregivers and their children to enhance relationships.
- Family involvement The intentional promotion of a learning environment in the home and engagement in early learning activities with young children outside of school.
- Parental efficacy Parental beliefs that their efforts will help children learn the skills needed to be successful in school.
- Role construction A parental sense of responsibility to support children's school learning in the home to help them succeed at school.
- School readiness A combination of cognitive, physical, social-emotional and behavioral components of child development that fosters self-regulation and sustained attention and includes knowledge of the basic concepts addressed in this study.
- Visual arts Includes all art forms that are experienced initially through sight or created to record for oneself or to communicate to others using visual images.
- Visual art experiences Engaging, purposeful and personally meaningful hands-on learning that encourages discovery, reflection and communication either by responding to or creating visual images.

Limitations

Beginning with the challenges inherent in the recruitment of low-income families to participate in family interventions, the present study has limitations associated with a lack of a control group and a small sample size. Because of the interactive nature of the intervention, the total number of participants was limited, and fewer participants enrolled than anticipated. Other limitations of the study included the defined recruitment criteria. Only participants living in a low-income neighborhood in an inner-city section of a midsize city had an opportunity to be involved. The participants were also limited to the primary caregivers and their four-year-old children and the intervention took place for seven consecutive weeks during the summer.

The study may or may not be transportable. This intervention was designed with the expertise of parenting educators, an early childhood specialist and art educators from a local museum, all of whom were involved with implementation. The intervention included the participation of a local art museum and a local library, two community resources that were integral to the success of the intervention

This study was embedded in a larger grant that limited some choices on the part of the investigator. One constraint included the family conversations component that had been previously developed and did not include conversations that were integrated with the visual arts. Another was the selection of instruments to measure growth of adult participants. Two instruments were selected from a parenting questionnaire that had been previously compiled. One instrument in particular proved to be an inadequate measure to access changes in parental sense of efficacy in the context of this study.

Chapter Conclusion

Increasing the family involvement of low-income families remains a challenge and a necessity. Young children from low-income homes continue to experience a substantive lag in readiness skills when compared to children from middle-income homes. According to the National Center for Education Statistics (West, Denton, & Hausken, 2000) report *America's Kindergarteners: Findings from the Early Childhood Longitudinal Study*, children from low-income homes performed like middle-income children who were approximately two years younger. Educators continue to explore strategies and methods to engage this target population and close the achievement gap. Visual arts were chosen as a non-threatening and potentially engaging medium to encourage the participation of low-income families in a family workshop intervention. The visual arts appear to function as a natural link to improve the basic concept knowledge of preschool children.

Chapter II offers a review of the literature, beginning with the exploration of the potential of the visual arts to facilitate and promote learning, followed by an in-depth look at the impact of family involvement on preschool children's readiness for school. The review of the literature includes a summary of social constructivist theory as a conceptual framework for scaffolding adult and child learning. The literature review supports the design of this family-focused intervention using the visual arts as the vehicle to increase family involvement by enhancing the parent-child relationship and the home learning environment to better support the development of school readiness.

The literature review culminates in the theory of action plan and concept map defining the main elements of this visual arts, family-focused intervention. This is

followed by Chapter III, which describes the methodology used in this study. Chapter IV includes an in-depth description of each of the four components that define the intervention and the presentation of data that were collected to address the research questions posed at the onset of the study. Finally, Chapter V covers the major conclusions drawn from the data analysis with recommendations for early childhood educators, parent educators and researchers. Suggestions for future research are explicitly stated in these recommendations.

CHAPTER II

REVIEW OF THE LITERATURE

Educators continuously struggle to find ways to reduce the achievement gap and level the playing field for low-income students. Extensive exposure to the arts may help to reduce the achievement gap. Low-income students who attend schools with high arts exposure have a reduced drop out rate, reduced grade retention rate and higher levels of self-confidence and achievement scores when compared to similar students who attend schools with limited arts exposure (Fiske, 1999).

For all children, at all ability levels, the arts play a critical role in cognitive, motor, language, and social-emotional development. The arts motivate and engage children in learning, stimulate memory and facilitate understanding, enhance symbolic communication, promote relationships and provide an avenue for building competence. (Goldhawk et al., 1998, p. v)

The arts are emotionally engaging and encourage focused attention, which drives learning (Jensen, 1998).

In addition to recent research examining the promising qualities of arts exposure on learning, educators continue to explore the potential impact of family involvement on children's academic outcomes. For preschoolers, the academic focus is on school

readiness. Neuroscience research in the area of child development has recently stressed the importance of early experiences and their impact on learning.

All cognitive and affective learning processes are highly complex interactions between inherited and environmental factors and are selectively affected by variations in child-rearing practices, socio-economic circumstances, family structures, adult-child interactions, educational environments and other contextual and developmental factors. (Stahl & Yaden, 2004, p. 142)

Low-income families faced with significant stressors in their daily lives tend to be less involved with their children's academic progress. Preschoolers' lagging school readiness remains a critical factor contributing to the achievement gap that exists as these children from low-income families enter kindergarten. School readiness is a goal for all children on a national level.

Collectively, the well-being and the school readiness of our nation's children needs to be a major priority so that all young children receive the essential transactions and the learning opportunities vital for their brain development and success in school. (Ramey & Ramey, 2004, p. 17).

A Vygotskian perspective illuminates the significance of adult involvement in supporting the development of the basic concepts that define school readiness. Lev Vygotsky, a developmental theorist, viewed young children as active learners greatly influenced by social interaction. According to Vygotsky, mental functions occur first on a social or "interpsychological" level and then secondly on an individual or "intrapsychological" level (Vygotsky, 1978). The adult has more responsibility for the learning at first but then transfers the responsibility to the child. This support provides a

scaffold for more extensive learning to take place. Research supports the hypothesis that engaging in this guided practice leads to independent mastery.

The literature review will provide a foundation to address the following questions: Can the emotional quality of the arts serve as a motivator for parents to become more involved in their child's learning? Can learning in and through the arts help preschool children build school readiness skills? Can shared experiences between children and their families enhance parent-child relationships? Can targeted family interventions increase family involvement or enhance the home learning environment? The literature review begins with an overview of the intrinsic and instrumental value of the visual arts for young children. This is followed by a focus on low-income family involvement and the significance of the home learning environment to the development of young children. The purpose of the literature review is to support the development of a visual arts intervention for families and their four-year-old children to increase family involvement and school readiness.

Visual Arts

The early childhood years were labeled “the golden age of creativity” by Read (1958). Albert Einstein recognized imagination as being more important than knowledge. Kemple, David, and Wang (1996) reported a positive relationship between creativity and self-esteem after administering measures for 64 preschool children. As Pablo Picasso stated, “Every child is an artist. The problem is how to remain an artist when he grows up.” Young children are dominated by the perceptions they take in through their senses, and they seek avenues to express their developing thoughts.

Artwork created by preschoolers reflects what they have learned about the world and ways they imagine the world could be, rather than a realistic representation (Piaget, 1963). The visual arts provide a rich venue for young children to represent their thoughts and evolving concepts through symbolic communication, at a time when their vocabularies are limited. As Eisner (2004) noted, “The limits of our cognition are not defined by the limits of our language” (p. 10).

Symbols take many forms and are an integral part of sharing ideas and information. These forms include words, numbers, maps, diagrams, drawings, paintings, photographs, sculptures, images on a computer screen and graphs. Symbols function as tools to help people communicate effectively about the world. Maps, x-rays, and diagrams facilitate discussions of information in a readily accessible format. An arts-based early childhood curriculum provides more opportunities to work with and understand important representations. Nelson, Martin, and Baldwin (1998) found a relationship between advanced drawing and the recognition of properties in objects for children ages 4-8 which can facilitate the learning of scientific concepts. Young children also develop spatial literacy as they grow in their ability to interpret symbols and represent their thinking using stable reference systems in a symbolic manner (Golbeck, 2005).

According to the National Council of Teachers of Mathematics (2000), geometry is a critical area requiring more emphasis in early math experiences. Spatial thinking and shape relationships are a focus of geometry instruction for young children. As children classify, describe, compare and contrast the attributes of shapes in a variety of orientations, they internalize the relationships that exist and are better able to interpret

and use geometric shapes in many varied forms of symbolic communication. A child's understanding of shape will typically stabilize around age six; therefore children need many and varied guided experiences during the preschool years to avoid misconceptions (Clements, 2004). In a recent article, Golbeck (2005) discussed the importance of selecting appropriate materials to facilitate the learning process. She said, "Combinations of color, shape, and volume can make the discovery of geometric characteristics more challenging and interesting or simply more difficult" (p. 82). One effective method to help preschool children learn to compose and decompose shapes is by engaging in block construction. Golbeck also discussed the process of spatial development for children and the spatial reference complexity involved in replicating a block structure by looking at a photograph. She also discussed the spatial development of children's drawings beginning with pre-axial, with no point of reference and progressing to uni-axial and then bi-axial around age eight. Visual arts provide a natural medium for space and shape exploration. In fact, shape and space are essential elements of art.

The visual arts, at a basic level, are comprised of elements and principles. The elements include line, color, shape, space and texture. The principles of design include emphasis, rhythm, balance, contrast and perspective. An art program designed to teach the foundations of art would include a focused study of the art elements, principles of design and meaningful experiences with both aesthetic appreciation and art production. Althouse, Johnson, and Mitchell (2003) conducted a three-year study working with five early childhood teachers incorporating developmentally appropriate experiences for young children, including aesthetic appreciation and art making. This qualitative research provided an avenue for recording and analyzing the arts-based teaching and

learning processes. With appropriate scaffolding, children in this study progressed in their abilities to communicate their ideas and evolving concepts with a variety of art media. The authors recommend that “if teachers want children to use art as a way to show what they know, they must provide them with in-depth experiences. In order to restructure present understandings and construct new concepts, children must explore ideas in a variety of situations” (Althouse et al., p. 54). Students’ personal representations in artwork facilitate their learning. Reflective thinking is an integral component of this process and critical for the construction of knowledge. More opportunities for students to create pictorial representations of new and evolving concepts may provide better access to children’s thoughts and serve to extend and deepen their learning (Edens & Potter, 2001).

Visual Arts, Thoughtful Attention and Approaches to Learning

The visual arts demand thoughtful attention. According to Noble, Tottenham, and Casey (2005), cognitive control is one of three core neurocognitive systems associated with school learning. Cognitive control is defined as the “ability to allocate attention, to hold something ‘online’ in memory, and to withhold an inappropriate response” (p. 72). Recent research found cognitive control “to be the single best predictor of resilience among high-risk children, even controlling for age, gender, negative life events, chronic strain abuse, nonverbal IQ, self-esteem, parental monitoring and emotional support” (p. 81). Cognitive control may be fostered as children engage in the visual arts. David Perkins (1994), a founding member of Harvard Project Zero, addressed the motivational aspects and cognitive dispositions that experiences with the visual arts have to offer.

Thoughtful looking at art has an instrumental value. It provides an excellent

setting for the development of better thinking, for the cultivation of what might be called the art of intelligence ... thoughtful looking is a way to make thinking better. (Perkins, p. 3)

Perkins listed some of the criteria that facilitate the link between the visual arts and enhanced thinking dispositions: sensory anchoring physical object to focus on; instant access—available to observe from a variety of perspectives; personal engagement—created to keep one’s attention; wide-spectrum cognition—visual processing, analytical thinking, posing questions, testing hypotheses, verbal reasoning, and multiconnectedness—social, philosophical, historical, personal (Perkins, p. 5). Jensen (1998) discussed the use of arts to teach thinking skills. The brain is able to make stronger connections when engaged with the arts. Jensen referred to the work of Jean Houston and stated that the arts also “stimulate body awareness, creativity and sense of self” and are congruent with the ways young children learn most effectively (p. 38). As young children practice engaging art activities, the brain is stimulated to make stronger and more lasting connections.

James Zull (2005) described the changing structure of the brain that takes place when learning occurs and how emotion, tied to learning, intensifies those changes. Art engages the emotions both for the person creating the piece and for the one viewing it. Zull pointed out that practice is another important factor in the learning process and that people tend to repeat the activities they enjoy most. The chemicals released in the brain for rewarding activities concentrate on the frontal cortex of the brain. Creating ideas, making plans, and formulating decisions take place in this frontal cortex region. “Since creativity is based on the decisions made by the creator, the reward system kicks in when

we are in control and inventing things that we have thought of ourselves. Freedom and ownership are part and parcel of the neurochemistry of the arts” (Zull, p. 2).

The visual arts encourage choice-making and pose challenges that cognitively engage children and provide opportunities to build competence and confidence. Children plan, solve problems, persist and self-regulate when engaged with the visual arts (Goldhawk et al., 1998). Focused attention is encouraged through the visual arts whether creating a piece or appreciating one created by a master or a friend. This focused attention may be increased due to the emotional quality of the experience. Personally meaningful experiences engage the brain and enhance learning (Csikszentmihalyi, 1996). Children also learn perspective-taking skills as they view and listen to different interpretations by peers and/or adults. “Different forms of representations evoke, develop, and refine the modes of thinking that contribute to the cultivation of what is broadly called mind...a cultural achievement” (Eisner, 2004, p. 9).

A sense of competence and self-efficacy translates to increased persistence (Bandura, 1989). Young children’s underlying attitudes are crucial as they begin their academic lives. In the report *America’s Kindergarteners: Findings from the Early Childhood Longitudinal Study*, West et al. (2000) reported stronger academic outcomes for first graders who had entered kindergarten with higher levels of enthusiasm and persistence. Approaches to learning is designated as one of five domains defining school readiness. Dimensions of this domain defined by the National Education Goals Panel are children’s orientation towards reasoning, problem solving, task persistence, intellectual curiosity and imagination. Early visual art experiences nurture the dimensions of this domain for young children.

Developmentally Appropriate Visual Arts

Unfortunately, for many children in early childhood classrooms, art experiences are quite limited. According to Harlan (1996), preservice and inservice teachers lack a robust knowledge of the complexity and value of art making and art appreciation. Many teachers confuse art production with making crafts. Instead of being given an opportunity to reflect and choose a topic to pursue and a medium with which to work, children are typically shown a model and given instructions to make their “art” look like the model. Choice-making, problem-solving and potential growth are sacrificed for another structured experience in following directions. Liora Bresler (1998) attributed the dilution of art in schools to teachers’ lack of expertise in three genres of art, child art, fine art, and art for children. Her analysis is based on the data collected during two qualitative research studies examining arts education in elementary schools. In the realm of child art, Bresler found teachers to be lacking in their ability to guide young children to observe, reflect, interpret and communicate their perceptions using a variety of art materials. The genre of fine art was the weakest of the three, and Bresler discovered that the two to three minutes devoted to the “best of our culture” did not facilitate children’s ability to make any distinctions or personally meaningful connections. Art for children, which is defined as developmentally appropriate experiences for children was focused primarily on performances rather than exploration and was typically reserved for music and drama. Because students did not have ample opportunities to personally invest in the process, their ability to communicate using a variety of media remained limited.

Not only do children need time to invest in the artistic process, but they also need to make meaningful connections and their ability to do so is mediated by their previous

personal experiences. According to Alland (1983), culture plays an influential role in the art produced by young children. Through his research, Alland found that the designs and compositions chosen by children are linked to significant components of their family and community cultures, such as fabrics worn by the adults. Liora Bresler (1998) found that when children experienced familiarity with a topic, they responded with a higher level of intensity and depth. The congruence of home and school extended the context for enriched and developmentally appropriate learning experiences.

Developmentally appropriate early childhood education includes and embraces the arts. The Arts Education Partnership and the Task Force on Children's Learning and the Arts: Birth to Age Eight (Goldhawk et al., 1998) have published a document which defines guiding principles for the development and implementation of early childhood programs focused on arts integration. This document, *Young Children and the Arts: Making Creative Connections*, highlights three designated focus areas: (a) the child – children's art activities should be developmentally appropriate and culturally congruent and should provide opportunities for children to create, perform and respond to high-quality arts experiences; (b) the arts experience – children's art experiences should be personally meaningful, developmentally appropriate, linked to curricular goals and should be educationally effective; and (c) learning environment and adult interactions – foster connections with community organizations, provide resources, encourage family participation and include visitations from practicing artists in the schools. The art experiences should be child-centered first and then content-relevant. Children need space, time, materials and interested adults in order to fully benefit from what the arts have to offer.

Three renowned developmentally appropriate arts-based early childhood programs are the Reggio Approach, Bank Street, and Waldorf. Each program is unique and values the learning potential of experiences learning in and through the arts. Lim (2004) examined how each of these three arts-based programs approach painting with young children based on philosophical orientations and understanding of child development. Painting is a highly recommended, developmentally appropriate experience for preschoolers because of its engaging qualities and potential to foster complexity. “Paint is viscous, has pigment, and is soluble, offering the maker a variety of representational choices and ways to convey meaning...even beginners can make replete images by spreading, mixing colors, and thinning paint” (Louis, 2005, p. 348).

The Bank Street approach follows a constructivist perspective based on the work of Piaget (1963) and progressivism based on the work of Dewey (1980). Preschool children are provided tempera paint of the three primary colors, black and white to explore creating new colors and to express their ideas. Effort is affirmed and teachers support artistic development.

The Reggio Approach developed by Malaguzzi follows a social constructivist perspective based on the work of Vygotsky (1978) and progressivism based on the work of Dewey (1980) and was developed in Reggio Emilia, Italy. The aesthetic environment is an integral part of this philosophy and children are encouraged to engage in in-depth exploration of topics of interest with many and varied materials and colors for painting. Collaborative work is encouraged, and the documentation of student learning and discoveries is emphasized and displayed. The public display of students’ accomplishments communicates the significance of their ideas and respect for their

learning. “Painting goes beyond art and aesthetics, and is viewed as a cognitive tool for higher symbolic thinking” (Lim, 2004, p. 117). Children grow and develop in their ability to symbolically represent their thoughts and ideas.

The Waldorf Approach follows the unique perspective of its creator, Rudolf Steiner, and celebrates spiritual and timeless qualities. Colors are given attributes that bring them to life. Children explore the energy in colors using vibrant watercolors on wet paper. Careful attention is given to nurturing the imagination as children explore the rhythm and “dialogue” of colors mixing and “playing together.” Careful attention is given to the presentation of materials and aesthetic qualities of the environment using natural materials. Modeling the joy of discovery, teachers paint with the children.

All three approaches value painting and the arts for their unique contributions. Early childhood educators can benefit from reflecting on the advantages of each to the overall development of the young child. Children need opportunities to explore a variety of media for a variety of purposes. Only then will children be able to demonstrate what they can communicate with familiar tools. Louis (2005, p. 343) noted that as children grow and develop they choose to represent more conventional images because of their desire to communicate “socially shared meaning.”

Visual Arts and Academic Achievement

Anecdotal information abounds regarding the link between the visual arts and academic achievement. Empirical data is lacking although recent research efforts have collected data that are beginning to present empirical support regarding the link between specific visual arts experiences and meaningful academic learning. Edens and Potter (2001) found that fourth to sixth grade students benefited from drawing their own

personal representations of scientific concepts and outperformed students on measures of conceptual understanding who either just read or read and copied a diagram in a science textbook. Gobert and Clement (1999) also found that fifth graders benefited from personal drawings focused on plate tectonics and scored higher on conceptual measures than students who solely summarized the text. This personal form of encoding helped students to learn and remember the new concept.

The Chicago Arts Partnerships in Education programs (Fiske, 1999) have documented the impact of high arts exposure on elementary-age at-risk students. These students with high arts exposure generally became more motivated and engaged in the arts and in school in general. Absenteeism and drop out rates decreased as compared to similar students in low arts exposure school environments. Arts served as a motivator for students who had not been successful in other aspects of schooling (Hanna, 1992). From 1989 to 1995, The College Board reported in *Profiles of SAT and Achievement Test Takers* that students who concentrated in the arts generally had a higher grade point average than those who did not. Students who took more art classes also tended to have higher SAT scores.

Elliot Eisner (1998), a well-respected art critic and qualitative researcher, advocated the arts for their unique contributions. Although he recognized that the arts are a demanding cognitive activity, his analysis of research linking the arts to academic achievement stated that limited empirical research was available to support this claim. *Critical Links: Learning in the Arts and Student Social and Academic Development* (Catterall, 2002) is a collection of empirical studies in the visual and performing arts. The empirical studies focused on drama and music reported a significant relationship

between the performing arts and literacy and language development for young children. Few empirical studies focused on the visual arts were included in this collection. A report in the compendium submitted by Burger and Winner, as cited by Catterall, found no significant relationship between the visual arts and achievement in reading except in the area of reading readiness, relying primarily on visual rather than linguistic elements.

Both Eisner (1998) and James Catterall (2002) encouraged future researchers to be diligent in exploring arts-based outcomes of art education, arts-related outcomes and ancillary outcomes and the transfer of learning. The following outcomes linked to the arts are of particular interest to Eisner: (a) “Students should acquire a feel for what it means to transform their ideas, images, and feelings into an art form.” (b) “Arts education should refine the student’s awareness of the aesthetic qualities in art and life.” (c) “Arts education should enable students to understand that there is a connection between the content and form that the arts display and the culture and time in which the work was created.” (d) Dispositions—“A willingness to imagine possibilities that are not now, but which might become; a desire to explore ambiguity to be willing to forestall premature closure in pursuing resolutions; and the ability to recognize and accept the multiple perspectives and resolutions that work in arts celebrate.” (pp.13-15). The arts help to broaden the perspectives of students and can help them communicate more effectively in an image-driven society.

The arts have become more accessible in one sense because of the availability of computers with multimedia capabilities. The creation of PowerPoint presentations and Web pages are common assignments in schools. Visual images also facilitate communication in a global society (Ohler, 2000). Children need experiences in the visual

arts, including aesthetics, to learn how to present information visually and analyze visual images in order to function more effectively in a technological world. According to the Partnership for 21st Century Skills (2003), students need Information and Communication Technology (ICT) Literacy to succeed in the workforce of the 21st century.

From higher SAT scores to decreases in retention rates and absenteeism, the arts can positively impact the academic achievement of students with high arts exposure. The arts are a form of literacy that can no longer be ignored in schools. In a technologically driven world, students need to develop ICT competence to prepare for future employment. Multimedia communication using a combination of words, images, sounds and motion has become more commonplace as the computer has “opened up the world of the artist” (Ohler, 2000, p. 17).

Community Connections and the Visual Arts

The visual arts motivate people of all ages to participate as an audience or creator. Art museums house artwork from a variety of cultures and time periods. Visiting an art museum can be a lesson in history, culture and aesthetic appreciation. In a democratic society all voices should be heard and respected. The visual arts provide this opportunity to be “heard,” for shared experiences to develop and for relationships to be enhanced. “There is no better way to understand and experience the diversity and commonality of humanity than through art” (Ohler, 2000, p.17).

Many existing arts-based programs for children have recognized the need to leverage community resources to enrich the children’s art experiences. School partnerships with local museums and artists who spend time participating in the school lives of children are evident throughout the country but remain limited in a time of

standards-based education. Dallas, Texas, is an exception, where 157 public elementary schools work with museums and local artists to impact academic achievement and knowledge of the arts (Reardon, 2005).

In most schools, when it came to the arts families tended to be included only as audiences for their children's performances or visual art exhibits. Oakland Gardens School in New York is an example of a school working to increase parental involvement in art education. In conjunction with The Center for Arts Education's Parents as Arts Partners Program, Nussabaum (2004) has put together a document titled *Involving Parents and Schools in Art Education: Are We There Yet?* This document considers the perspective of the parents, seeking ways to understand, educate and empower parents to actively participate and become advocates for arts education in schools.

Potential Impact of Visual Arts on Learning

The visual arts are emotionally engaging and foster the dispositions of life-long learning. Dispositions such as taking initiative, having persistence and engaging in problem solving enhance school readiness and define necessary 21st century skills. Approaches to learning is one of five domains associated with school readiness. Visual arts experiences that are developmentally appropriate, culturally congruent and personally meaningful help children develop these positive learning dispositions.

In addition to positive learning dispositions, experiences with the visual arts also provide opportunities for children to develop spatial literacy. Spatial literacy is critical for interpreting and using symbolic representations necessary for abstract thinking and problem solving. Symbolic communication in the form of letters, maps and diagrams is also necessary to communicate effectively about the world. Visual art experiences allow

children to explore symbols as representations of thoughts and ideas. Art is a powerful form of nonverbal communication. In an image-focused global society, visual literacy is a new term for a skill that increasingly demands focused attention.

The only one of the three early childhood arts education approaches mentioned that embraces the importance of visual literacy is the Reggio Approach developed by Malaguzzi. Art is “viewed as a cognitive tool for higher symbolic thinking” (Lim, p. 117). Children’s thinking is made visible by documenting their progress with images and comments. Children feel that their ideas are respected and important enough to be preserved. As children are exposed to many and varied images they grow in perspective-taking skills and build a tolerance and acceptance for diversity as well as an understanding for the commonalities humans share. They grow in their ability to communicate using a wide variety of visual images and symbols supported by their teachers in the Reggio schools.

At-risk children in particular may benefit from art experiences provided in their schools. Low-income families often do not have the resources to provide these opportunities after school. The arts level the playing field, and at-risk children find that they can achieve at the same levels as higher SES peers. At-risk students with high arts exposure become more motivated to excel. Involving the families of at-risk children in this process may increase their level of family involvement and enhance the school success of their children.

Low-income Family Involvement

Family involvement has been recognized by leading educators as a necessary ingredient defining school effectiveness (Epstein, 1995; Marzano, 2003; NEGP, 1997; Sheldon, 2002). Epstein (1995) defined six important areas for parental involvement that impact student success. The six types of involvement are parenting, communicating, volunteering, learning at home, decision-making and collaborating with the community. Hoover-Dempsey et al. (2005) distinguished between home- and school-based activities and defined parent's motivation or lack of motivation for involvement. Walberg (1984) described parental investment of resources in their children as the home curriculum. This review is focused on families whose children would benefit greatly from the effective involvement of their families in home learning activities.

Low-Income Families and Lack of Resources and Barriers

In the year 2003, 18% of all children in the United States were living in poverty (Forum on Child and Family Statistics, 2005). Living in poverty is associated with a lack of resources, including nutritious food, health care and adequate housing. Children often also lack access to books, computers, art materials and learning experiences more typical in higher-income homes. As a result, children living in poverty may enter school at a disadvantage and not perform as well as children in more affluent homes (Epstein, 1995). Many times the schools that low-income children attend also lack adequate resources. Kozol (1990) shared an alarming statement from a principal of a failing school in a poor district in St. Louis:

This is a very popular approach in the United States today. Don't provide the kids with a new building. Don't provide them with more teachers or more books or more computers. Don't even breathe a word of desegregation. Keep them in

confinement so they can't subvert the education of the suburbs. Don't permit them 'frills' like art or poetry or theatre. Carry a bat and tell them they're no good if they can't pass the state exam. Then when they are ruined, throw them into prison. Will it surprise you to be told that Paterson destroyed a library because it needed space to build a jail? (p. 63)

At times, the discrepancies between the affluent schools and the under-funded schools are so vast that one can hardly believe they are part of the same entity known as American public schools. Bronfenbrenner (1975) commented on the barriers that impact the ability of many low-income families to be more involved. He stated

Families live under such oppressive circumstances that they are neither willing nor able to participate in the activities required by a parent intervention program. Inadequate health care, poor housing, lack of education, low income and the necessity for full-time work...rob parents of time and energy to spend with their children. (pp. 465-466)

Hoover-Dempsey and Sandler (1995) identified the following barriers: lack of motivation, lack of resources, stressful life context, lack of perceived invitations and past school experiences that were negative.

Despite the barriers, parents are a child's first teachers, and raising children to be contributing members of a community is the primary caregiver's role in a democratic society. Research supports the link between parent involvement and student achievement (Ballen & Moles, 1994; Epstein & Van Voorhis, 2001; Finn, 1998; Griffith, 1996). This holds true for young children and impacts their overall school readiness (Parker et al., 1997; Petrie & Davidson, 1995; Reynolds, Mavrogenes, Bezruczko, & Hagemann, 1996).

In a longitudinal study involving 72 low-income African American mothers and their children from 18 months to kindergarten entry, Roberts, Jurgens and Burchinal (2005) found that a supportive and responsive home environment was a consistent predictor of literacy outcomes for four- and five-year old children as measured by the *Test of Early Reading Ability* (TERA), the *Peabody Picture Vocabulary Test- Revised* (PPVT-R) and the *Clinical Evaluation of Language Fundamentals Preschool* (CELF-P). In a study measuring different dimensions of family involvement, Fantuzzo et al. (2004) also found home-based family involvement to be the best predictor of child outcomes.

Low-Income Families: Sense of Responsibility and Parental Efficacy

According to Hoover-Dempsey et al. (2005), the involvement of parents in their children's academic learning is predicated partly on an active role construction for involvement. Parents must first feel it is their responsibility to be involved before they get involved. Secondly, they must believe that they can help their children. A sense of responsibility combined with positive parental efficacy serves as a motivator for family involvement. Other major contributing factors include parents' perceived invitations from their children and schools to be involved and parents' current life context (Hoover-Dempsey et al.).

Role construction is socially constructed and therefore malleable in a social context. Parental beliefs about raising children, knowledge of how children develop and beliefs about their roles in educating children define role construction for individual families. Family parenting beliefs are influenced by cultural beliefs as well as the beliefs and expectations of other members in the parents' social network. The size of the social network affects level of involvement at home and at school. A larger social network was

associated with higher levels of parent involvement in a survey of 195 mothers of elementary-age students (Sheldon, 2002). Gottlieb (1983) found that strengthening a family's social network is a critical component to empowerment. A sense of responsibility to be involved is created over time and can change over time.

Several studies focused on a variety of minority groups found that role construction functioned as a predictor for family involvement (Chrispeels & Rivero, 2001; Grolnick, Benjet, Kurowski, & Apostoleris, 1997; Sheldon, 2002). Research also supported the potential for intentional efforts to change role construction to motivate parental involvement (Biddle, 1986; Hoover-Dempsey & Sandler, 1997). Biddle (1979, 1986) found role construction to be influenced by teacher recommendations for specific home assistance by parents. Gonzalez and Chrispeels (2004) reported that the participation in a designated parenting intervention enhanced the parental role construction of Latino parents.

An active role construction combined with parental efficacy is a recipe for motivating parents to be more actively involved in their child's learning. Sense of efficacy is also socially constructed with the potential for change and growth. Regarding human beings in general, "the stronger the perceived self-efficacy, the higher the goals people set for themselves and the firmer their commitment to them" (Bandura, 1989, p. 1175). According to Bandura (1986) and social cognitive theory, there are four sources of efficacy-building information: mastery experiences, vicarious experiences, social persuasion and psychological or emotional arousal. Mastery experiences lead to the most significant changes. Social persuasion is effective when the feedback is perceived to be accurate and the source credible (Bandura, 1986). Perceptions of efficacy are formed

through “cognitive and metacognitive processing” of these sources (Goddard, Hoy, & Hoy, 2004, p. 6).

According to Coleman, low-efficacy parents would benefit from interventions that include the sources of efficacy-building information defined by Bandura. “High parenting self-efficacy seems to be strongly associated with the parental capacity to provide an adaptive, stimulating, and nurturing child-rearing environment ... low parenting self-efficacy has been correlated with parental depression” (Coleman, 2000, p. 14).

Providing weekly assignments for families to complete with their children might provide an opportunity for mastery experiences for participants in an efficacy-building intervention. Reinforcement activities should be specifically designed to meet the needs of the population that is being served.

In addition to role construction and efficacy, parents’ level of involvement is also affected by their perceptions of invitations for involvement from their children, their children’s teachers and the school as a whole. A principal of a school should strive to make all families feel welcome. The school climate can range from being welcoming and respectful to all cultures and encouraging involvement to discouraging family involvement. Comer and Haynes (1991) found that low-income families were apt to become involved in a school where they felt respected and their input was welcomed. Research supports a higher level of parental involvement in schools where parents perceive invitations for involvement from their children’s schools (Griffith, 1998; Lopez, Sanchez, & Hamilton, 2000; Scribner, Young, & Pedroza, 1999; Seefeldt, Denton, Galper, & Younoszai, 1998).

Family Behaviors and Family Involvement.

According to Dunst, Trivette, and Deal (2003), families function more effectively when they feel respected. All families have changing needs which influence their behavior. The needs of families are impacted many times by forces outside their locus of control. But parents must perceive a need before they seek assistance in acquiring resources to meet a need. Cultures also vary on the values they place on different behaviors and goals. Dunst et al. recommended that family interventions assess the needs of parents before providing assistance and then strive to keep parents from becoming dependent on the helper. The authors supported the empowerment of families and recommended having parents fill out a *Family Functioning Scale* initially to determine family strengths and capabilities that can be expanded. Amatea et al. (2006) presented a family resilience framework to support family involvement. The starting point the authors recommended was recognizing and affirming family strengths. This family systems perspective had a goal to build family capacity and recognize family interaction patterns that support academic achievement and help the family function effectively.

What does it mean to function more effectively? Steinberg (2000) linked optimal parenting to behaviors reflective of an authoritative parenting style. His list included the following: (a) deep and abiding commitment to parenting role, (b) intimate knowledge of the child and the child's developmental needs, (c) respect for the child's individuality and desires, (d) provision of structure and regimen appropriate to the child's developmental level, (e) readiness to establish and enforce behavioral guidelines, (f) cognitive stimulation, and (g) effective communication and use of reasoning to ensure the child's

understanding of parent's goals and disciplinary strategies. Research supported the link between authoritative parenting behaviors and positive child outcomes (Baumrind, 1991).

Parenting categories that are stable across cultural groups and are related to school readiness in the United States include the following as defined by Brooks-Gunn and Markman (2005): (a) nurturance, (b) language, (c) discipline, (d) materials in the home, (e) monitoring, (f) management of home and (g) direct teaching of skills to children. These dimensions are linked with a variety of indicators associated with school readiness. According to Brooks-Gunn and Markman (2005), "when researchers measuring school readiness gaps control for parenting differences, the racial and ethnic gaps narrow by 25-50 percent" (p. 139). They also reported that parenting behaviors can be influenced through sustained interventions. After examining programs for economically disadvantaged families, Brooks-Gunn and Markman found that "home- and center-based programs with a parenting component improve parental nurturance and discipline" (p. 139). Parental nurturance increases the sensitivity and responsiveness toward the child. To date, home-visiting programs and center-based early childhood education parenting programs have been associated more frequently with positive outcomes. Some literacy programs have been effective in increasing book dialogue between adults and children. One developed by Whitehurst called the "dialogic reading" program has measured significant gains (Whitehurst et al., 1994). Researchers continue to examine interventions that have been developed to address different dimensions of parenting.

Family Interventions and Family Involvement.

Interventions targeted at increasing family involvement are on the rise due to the national attention and federal funding of early childhood intervention and family involvement research has received in recent years. The more successful interventions have taken the barriers into account and have found ways to address the real needs of the families served. Unfortunately, many programs have ascribed to the treatment or prevention deficit model rather than a “promotion approach” which is designed to build on family strengths and “emphasize growth among all family members” (Dunst et al., 2003, p. 7). Some of the family involvement programs that have received positive attention in the literature include Head Start and Early Head Start, Even Start Family Literacy Program, Infant Health and Development Program (IHDP) Home Instruction Program for Preschool Youngsters (HIPPY), Reach Out and Read (ROR), Nurse Home Visitation Program and Effective Black Parenting. According to Brooks-Gunn and Markman, center-based early childhood education programs including a parenting component have significantly impacted children’s school readiness.

Center-based early childhood education programs with a parenting component have improved vocabulary, reading achievement, math achievement and IQ with some effects continuing through adolescence in some studies.

(Brooks-Gunn & Markman, 2005, p. 153)

More empirical evidence is needed to discern which aspects of the above-listed programs result in long-term positive outcomes for children.

Fantuzzo et al. (2004) recently conducted a family involvement study focused on low-income families and their young children attending Head Start programs. The study included 144 participants and was structured to compare family involvement dimensions

and their impact on child outcomes. The child outcomes that were measured included end-of-year outcomes in approaches to learning, behavioral issues and receptive vocabulary. The *Family Involvement Questionnaire* was administered to all families during the fall semester of the school year. The *Family Involvement Questionnaire* is divided into three subscales measuring different aspects of family involvement. The first subscale is called “School-Based Involvement” and is focused on activities that take place at school. The second subscale is called “Home-School Conferencing” and is focused on the communication that takes place between the home and school about a child’s academic progress. The third subscale is called the “Home-Based Involvement.” The “Home-Based Involvement” subscale is focused on “behavior reflecting active promotion of a learning environment at home for children” (p. 470).

The results of the study were that the “Home-Based Involvement” behaviors were the best predictors of preschool child outcomes at the end of the school year. “This dimension associated significantly with children’s motivation to learn, attention, task persistence, receptive vocabulary skills, and low conduct problems” (Fantuzzo et al., 2004, p. 467). The “Home-Based Involvement” scale is a Likert-type scale that consists of 13 questions which ask parents to report how frequently they engage in specific activities. The questions are specific to behaviors that include providing a climate in the home that supports learning and engaging in activities with children that promote learning. One of the questions specifically addresses bringing home learning materials to share with the child.

Parents who do not have access to quality learning materials benefit from opportunities to borrow them. Yaden, Madrigal, and Tarn (2003) found that immigrant

parents took advantage of a lending library set up at their child's preschool. The books were strategically placed for easy access when parents were picking up their children at the end of the day. Yaden et al. found that parents and children spent time together choosing books from the lending library. Over 80% of the families checked out books on a weekly basis. Neuman (1999) found in her formative experiment with 100 classrooms of three- and four-year-old children that increasing access to quality books combined with training for child care workers led to significant increases in time allotted to reading aloud, letter name knowledge, receptive vocabulary and concepts of writing as well as increases in concepts of print, including environmental print and physical changes to the classroom highlighting print and books. Unfortunately for many young low-income children, book availability remains low. Neuman reported that "monies available for books in child care centers are typically scarce... a budget item that must be shared with crayons, paper, and diapers" (p. 306).

The lack of access to learning materials and stimulating learning experiences seems to be even more limited in the summer months for low-income children. In a recent brief, the National Center for Education Statistics (2004) reported summer activity variation for children by SES. Lower SES families participated less frequently in the following: library; bookstore; state or national parks; art, science or discovery museums; zoo, aquarium or petting zoo; historic sites; concert or plays; vacation; and day or overnight camp. The achievement gap widens as children from higher SES homes have more varied opportunities to expand their knowledge base with developmentally appropriate learning experiences during the summer. Only 46% of children from low-income families visited the library during the summer months as opposed to 80% of high-

income children. With more access to books, higher-SES children typically have many more literacy experiences that support academic achievement.

Interventions focused on equipping minority parents with strategies to support the academic learning of their children, including visits to the library, may be perceived as more beneficial by minority parents than those focused on parenting skills in general. Diamond, Reagen, and Bandyk (2000), after examining the National Household Education Survey, noted that minority parents were more likely to express concern about their child's readiness for school than Caucasian parents. Caucasian parents were more likely to hold their children back a year before starting school. Parents and teachers also varied in their recognition of skills that define school readiness. Teachers ranked dispositions toward learning and behaviors describing approaches to learning as more important for kindergarten success than academic skills such as counting, reading and writing as opposed to parents who were more focused on academic skills (Harradine & Clifford, 1996; Knudsen-Lindauer & Harris, 1989).

In summary, targeted interventions that are culturally congruent and affirm family strengths may be more successful than the traditional treatment or prevention-deficit models. Well-designed interventions can address the malleable motivation factors and perceived barriers that impact low-income family involvement. One method of increasing motivation is accessing and building family social networks. As families interact within their social networks, they have the potential to increase their sense of responsibility to be involved in their children's schooling and may be more open to learn new strategies. The home learning environment remains a critical component impacting

school readiness. Interventions that target strategies to enhance the home learning environment have increased potential to enhance school readiness.

Home Learning Environment, SES and School Readiness

School readiness encompasses more than academic skills. In a document titled *Getting a Good Start in School*, the National Education Goals Panel (1997) listed the domains that define school readiness: physical well-being and motor development, social and emotional development, approaches to learning, language development, cognition and general knowledge. The document referred to a national priority that “by the year 2000, all children in America will start school ready to learn” (NEGP, 1997, p. 1).

Currently, many children lack the readiness skills they need when they enter kindergarten. Research supported that families with a higher SES are more likely than poor families to send children to school with the readiness skills they need when they enter kindergarten (Duncan & Magnuson, 2005).

SES is associated with many factors that impact school readiness. Parenting is one of the major factors that impacts child development at an early age. Responsive parenting is associated with more positive child outcomes (Bransford, Brown & Cocking, 2000). Ramey and Ramey have written research articles and parenting books defining transactional experiences between parents and children. They have:

... summarized a vast body of scientific evidence in terms of seven types of experiences that are essential to ensure normal brain and behavioral development and school readiness: encourage exploration; mentor in basic skills; celebrate developmental advances; rehearse and extend new skills; protect from

inappropriate disapproval, teasing, and punishment; communicate richly and responsively; guide and limit behavior. (Ramey & Ramey, 2004, p. 473)

Ramey and Ramey found that when at-risk children were provided with these types of experiences, they made cognitive gains. Hart and Risley (1995) reported significant differences in the amount of words typically spoken in a high-SES home versus a low-income home. As a result, the receptive vocabularies of the low-income children were drastically lower than children in the higher-SES homes. Duncan and Magnuson (2005) defined four key resource distinctions of SES: income, education, family structure and neighborhood conditions. The impact on school readiness was evident as the authors discussed each of the categories and how they affected the family and home learning environment. One important example mentioned was that fewer financial resources limited the number of learning materials in the home and limited opportunities to access learning experiences. Early experiences in a child's life impact brain development and capacity for learning (Bransford et al., 2000).

Closing racial and socioeconomic achievement gaps remains a focus for much of the research on school readiness. Increasing access to quality early childhood programs for economically disadvantaged preschool children remains the most promising method for addressing the issue. Interventions focused on increasing learning materials in the home and parenting have also demonstrated a positive impact on child outcomes (Brooks-Gunn & Markman, 2005; Fantuzzo et. al, 2004).

Parker, Griffin, Ripple and Peay (1999) conducted an exploratory study involving 173 mothers of four-year-old children attending Head Start. Previous research had confirmed a link between the parent component of the Head Start programs and

enhancements in the home learning environment and parent-child relationship (Kessler-Sklar, et al., 1998). The focus of the Parker et al. study was to test components of the home learning environment and the parent-child relationship to determine which aspects of each predict school readiness. The design implemented was a pretest/posttest longitudinal design. Parents were surveyed using the *Parental Attitudes Toward Child Rearing Questionnaire* (PACR) and the *National Evaluation Information System, Part B* (NEIS). Results indicated that changes in both the home learning environment and the parent-child relationships were related to increases in school readiness as measured by the *Cooperative Pre-School Survey* (CPI), the *Adaptive School Behavior Inventory* (ASBI) and the *Classroom Behavior Inventory* (CBI.) Parker et al. reported:

NEIS subscales were associated with several child school readiness outcomes.

For example, children whose parents spent more time helping them learn skills at home reported higher overall cognitive and language competencies, indicated by higher overall CBI and numeric concept activation scores. (p.

418)

The results also indicated a limit to the benefits of time spent on school-related tasks between parent and their children. “The more school-related things parents do or talk about with their children, the less considerate and task oriented their children were and the more depressed and distractible” (Parker et al., 1999, p. 421-422). The conceptual model defined by Parker et al. described aspects of an effective home learning environment that supports school readiness: child helps with household tasks, relevant play materials in the home, school readiness skills parent helped child to learn, school-

related activities parents do or talk about with child, ability to facilitate child's learning, and parent's understanding of play.

Enhanced school readiness is linked to school success. The *Early Childhood Longitudinal Study* (ECLS) reported readiness data on the 20,000 kindergarten students that were initially assessed in 1998 (ECLS-K) continued to follow students through the fifth grade. The readiness gap was evident and varied according to the following: race/ethnicity, age, parents' education and family structure. As documented in *An Uneven Start: Indicators of Inequality in School Readiness* (Coley, 2002), the ECLS-K report "suggests that being a minority student, a younger student, having parents with less education, and living in a single-parent household put a student at risk of school failure" (p. 7). Caucasian and Asian students begin school with a higher level of proficiency in reading and math according to the data collected with this national survey. The ECLS-K survey provided a wealth of information on parent and child factors associated with school readiness. A new ECLS survey is following over 10,000 children from birth through the first grade. Longitudinal data of this magnitude will provide an in-depth, cross-cultural look at school readiness in the near future.

Parenting differences account for approximately half of the variation in school readiness. Some early childhood programs with a family intervention component have demonstrated improvements in parenting and readiness skills (Brooks-Gunn & Markman, 2005). According to Bowman, Donovan, and Burns in *Eager to Learn: Educating Our Preschoolers* (2001), the most important feature of an effective home learning environment is a responsive and responsible parent. Parker et al. (1999) described an

effective parent-child relationship as one that includes warmth, responsiveness and encouragement of independence.

The “curriculum of the home” provides varied learning opportunities for children. The same principles of learning defined by cognitive science apply. Accessing children’s prior knowledge is a critical step in the learning process. Children should be encouraged to understand rather than memorize and to link new knowledge to existing knowledge. Children need time to learn and develop pattern recognition skills. They need to engage in deliberate practice, and they need feedback. Metacognitive skills develop as children learn to recognize their individual thinking about their own learning process. De Loache, Miller, and Pierroutsakos (1998) documented young children’s metacognitive abilities while they were engaged in meaningful learning and found that children could apply strategies to remember information and to solve problems. Parents and teachers can help children to function more effectively in school if they encourage children to be metacognitive, ask questions, actively reflect, make predictions and hypothesize (Bransford, Brown, & Cocking, 2000).

The foundation for children’s learning is impacted by early experiences and an understanding of basic concepts. Context matters in terms of learning opportunities that exist and are accessed. Developmentally appropriate instruction can facilitate concept development, allowing children to function beyond their independent capabilities. This process is enhanced when adults access children’s thinking and help children expand or restructure their understanding (Vygotsky, 1978). Children develop a rich and varied intuitive informal knowledge base through personal experiences with their world. The

careful scaffolding of adults with children engaged in meaningful learning can help children test their theories and address their misconceptions.

The fact that humans have a predisposition to learning language and simple mathematics is well documented (Bransford et al., 2000). Simple math skills are considered basic concepts and include “recognition of shape and size and eventually pattern, the ability to count verbally, the recognition of numerals, the ability to quantify from a very general level to a specific level requiring one to one correspondence” (Bowman, Donovan, & Burns, 2001, p. 76). According to the National Center for Education Statistics report *America’s Kindergarteners: Findings From the Early Childhood Longitudinal Study* (West et al., 2000), the variations in mastery of these concepts was associated with SES, and children from low-income families performed like children from middle- income families who were approximately two years younger. This lag can impact future mathematical learning if the teacher does not take the time to facilitate the development of these basic skills before introducing higher-level concepts. Teachers need to spend time getting to know their students so they can provide individualized instruction that is developmentally appropriate and culturally congruent to maximize student learning and lessen the achievement gap.

When children begin their school experience they intuitively expect it to reflect their understanding of the world (Gardner, 1991). Unfortunately for many, the match between home and school culture varies greatly. Heath (1982, 1983) found that “known-answer” questions which are commonly used in schools are reflective of white middle-class home interactions. Economically disadvantaged African American children are not typically exposed to this routine. The questioning techniques associated with the African

American culture are “analogy, story-starting and accusatory” (Bransford et al., 2000, p. 110). Teachers who are unaware of this difference misinterpret the lack of participation by children from low-income families in the known-answer questioning to mean that the children lack basic knowledge. Teachers who are aware of cultural differences can affirm all students and link new experiences with familiar ones. They can help children build on existing knowledge through social interaction. Social constructivist theory embraces the importance of context and communication. Learning is a social process that is dynamic and powerful.

The curriculum of the home sets the stage for young learners. A responsive parent with access to learning materials who provides developmentally appropriate scaffolding can dramatically enhance school readiness. Children living in low-income homes are traditionally at a distinct disadvantage when it comes to learning materials and access to learning opportunities. Low-income families who believe it is their responsibility to be involved in their children’s learning benefit from targeted interventions that focus on access to learning materials and strategies to enhance school readiness. Parents can help their children develop basic concepts as they respond to and guide their children’s motivation to learn about the world. Books also provide many and varied opportunities for children to increase understanding of new concepts by reflecting on their personal lives and making text-to-self connections. Literacy and oral language skills develop naturally in this context of social interaction between parents and children sharing books. Guidance provided by the more competent adult results in scaffolding children’s learning to new heights.

Social Constructivist Theory as a Conceptual Framework for Scaffolding

Adult and Child Learning

According to Vygotsky (1978), cognition develops in the context of social interaction with more competent people. The social interaction that takes place provides the learner access to the acquired knowledge of others and an opportunity to address misconceptions. The growing knowledge based on social experiences lays the foundation for individual beliefs to take root. “Beliefs are powerful cognitive filters through which meaning is developed” (Smith, 1997, p. 239) and changing beliefs is fundamental to long- term changes in behavior.

Guided Practice and Learning

Vygotsky’s learning theory (1978) supports the significance of family involvement in a children’s early learning experiences. Vygotsky’s research supports the hypothesis that engaging in guided practice provided by a more capable person leads to independent mastery by the child. His learning theory suggests that people function in their “zone of proximal development” (ZPD) when accompanied by a more competent person. Vygotsky defined the ZPD as the “distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p. 86). Children are able to perform beyond their present capabilities due to the “guided practice” provided by a skilled mentor.

Parenting provides opportunities for families to provide “guided practice” in the home learning environment. According to Jensen (1998), “the single best way to grow a

better brain is through challenging problem solving”(p. 35). Pratt, Kerig, Cowan, and Cowan (1988) investigated the interactions of mothers helping their preschool children with a challenging task. He found that authoritative parenting behaviors were linked to the most effective type of scaffolding. Authoritative parenting behaviors in general are associated with more positive child outcomes (Baumrind, 1991). The negotiations that are included in this parenting style seem to be related to trusting the child to take the lead and become actively involved when learning a new task. Parents need to build on children’s sense of competence (Bowman, Donovan, & Burns, 2001).

Roberts and Barnes (1992) examined the performance of four- and five-year-old children on a standardized IQ test following parent-child episodes of scaffolding. The children of parents who provided more time for them to think about, talk about and manipulate the objects scored higher on the test. The children of parents who were less willing to control the situation also scored higher. Praising children for competence during the completion of a challenging task led to more success in subsequent independent application of the task by the child (Diaz, Neal, & Vachio, 1991).

Scaffolding children appropriately and effectively is inextricably tied to responsive and contingent interaction with a child engaged in a developmentally appropriate challenge assisted by a supportive adult. Asking open-ended questions encourages children to notice, think and express their thoughts. The key to scaffolding is to relinquish control as the child demonstrates capacity to complete the next step in solving or performing the task at hand. Talking with the child during the process provides an opportunity for the adult to model the thinking process pertaining to that particular task.

As soon as the child is able to perform the task independently, the child should be encouraged to do so.

Vygotsky (1978) believed that young children need to develop fundamental competencies during the preschool years to lay the foundation for future learning. He believed in fostering the development of the whole child and felt that this learning required explicit instruction and scaffolding by adults. Self-regulation and oral communication are two of these fundamental competencies that he felt were critical for developing deep conceptual understanding. Vygotsky observed that young children learn best through repetition, so parents reinforcing what children learn in school is very effective and facilitates transfer of learning. As children practice, parents and teachers can extend learning by providing opportunities for children to access their ZPD.

Family Interventions and the Zone of Proximal Development

Adults can also function in their ZPD when learning a new skill or strategy with guided practice. Successful parenting interventions should include opportunities for parents to practice new skills with the guidance of a skilled mentor. As parents increase their repertoire for supporting their children's learning, their sense of efficacy is enhanced. Sense of efficacy fosters persistence because parents feel competent in reaching their goals.

Bandura (1986) defined four sources of efficacy-building information, of which mastery experiences is the most powerful in enhancing sense of efficacy. When parents experience a successful interaction with their child that enhances the child's learning, they feel more encouraged to continue providing assistance. An intervention that provides opportunities for mastery experiences can help to expand efficacy, which is a

socially constructed phenomena. The second source of efficacy-building information is vicarious experiences. The role model must be one that the parent perceives as being similar to themselves. If the role model is not perceived as being similar in capabilities and motivation, then the adult will typically disregard the model. Social persuasion can be effective if the model is considered credible and respectful. Traditional family interventions rely heavily on social persuasion as the primary method of increasing efficacy and involvement.

Carefully planned family interventions can include a variety of efficacy-building experiences. As families practice their skills with the help of an experienced mentor, they can grow in their abilities to support the learning of their young children. Specific feedback while engaged in practice in a low-risk setting can facilitate this process. Parents can function in their ZPD as they refine their understanding of how to better help their children succeed in school.

Chapter Conclusion

Parents are primarily and ultimately responsible for preparing their children to be productive adults. Research supports that family involvement increases student success. A multitude of barriers and stressors exist for low-income families that compromise their levels of involvement. Many low-income parents have also had negative personal school experiences and therefore are less likely to be involved.

Educators continue to explore methods to increase the parental involvement of all families in their children's academic achievement. Traditional methods of sharing information with parents have been marginally successful. Because many students from

low-income families begin school with lagging school readiness skills, educators must reach families before children enter kindergarten. Parents need access to information and materials to support the growth of their children in every domain.

The arts provide a level playing field for children and an entry point for all domains. A wider range of learning styles can be met. Children are naturally drawn to communicate symbolically and learning in and through the arts provides access to other sign symbol systems to express their ideas, thoughts, feelings and evolving concepts. The visual arts can represent children's thinking and can also be used to advance children's thinking. As children draw from multiple sources, they are better equipped as communicators in a global society.

Visual arts are emotionally engaging, and emotion drives learning. Regardless of age, people respond to viewing and creating art. Engaging in the arts strengthens adaptability and fosters intellectual curiosity. Self-confidence and self-discipline are enhanced as people engage in problem solving which is integrally tied to the creative process. The non-threatening nature of the visual arts can attract parents to a family-focused art intervention whose primary goal is to enhance school readiness and give parents tools to support this process. Implementing such a program in a neighborhood library instead of a school building may reduce resistance due to the negative perceptions that many low-income parents hold based on past school experiences. A library setting may also increase access to quality literacy materials beyond the intervention.

A review of the research in the visual arts, school readiness and family involvement of low-income families grounded in social constructivism leads to a theory of action aimed at enhancing low-income parents' motivation to be involved, including

knowledge of how to support academic learning to increase the school readiness of their preschool children. The visual arts served as the focusing construct “because works of art demand thoughtful attention to discover what they have to show and say. Also works of art connect to social, personal, and other dimensions of life with strong affective overtones” (Perkins, 1994, p. 4). The arts are inviting, emotionally engaging and exciting. According to the theory of action plan, learning in and through the arts, including shared art experiences for parents and their children, will enhance parent-child relationships and encourage more family participation than other approaches.

The concept map presented in Figure 1 defined the theory of action for this arts-infused family intervention. The yellow boxes addressed the parenting components of the intervention and their potential impact on school readiness. The home learning activities were subsumed under the box titled family interactions with their children. The turquoise boxes addressed the child-only components of the intervention and their potential impact. The purple box addressed the collaborative art experiences for both parents and children. The goals were stated in the orange boxes called school readiness and probability of academic achievement. This orange color matched the leading question: How can a family-child art intervention enhance school readiness? Another concept map was originally created to develop a rationale for the focus on the visual arts. This concept map is located in Appendix A.

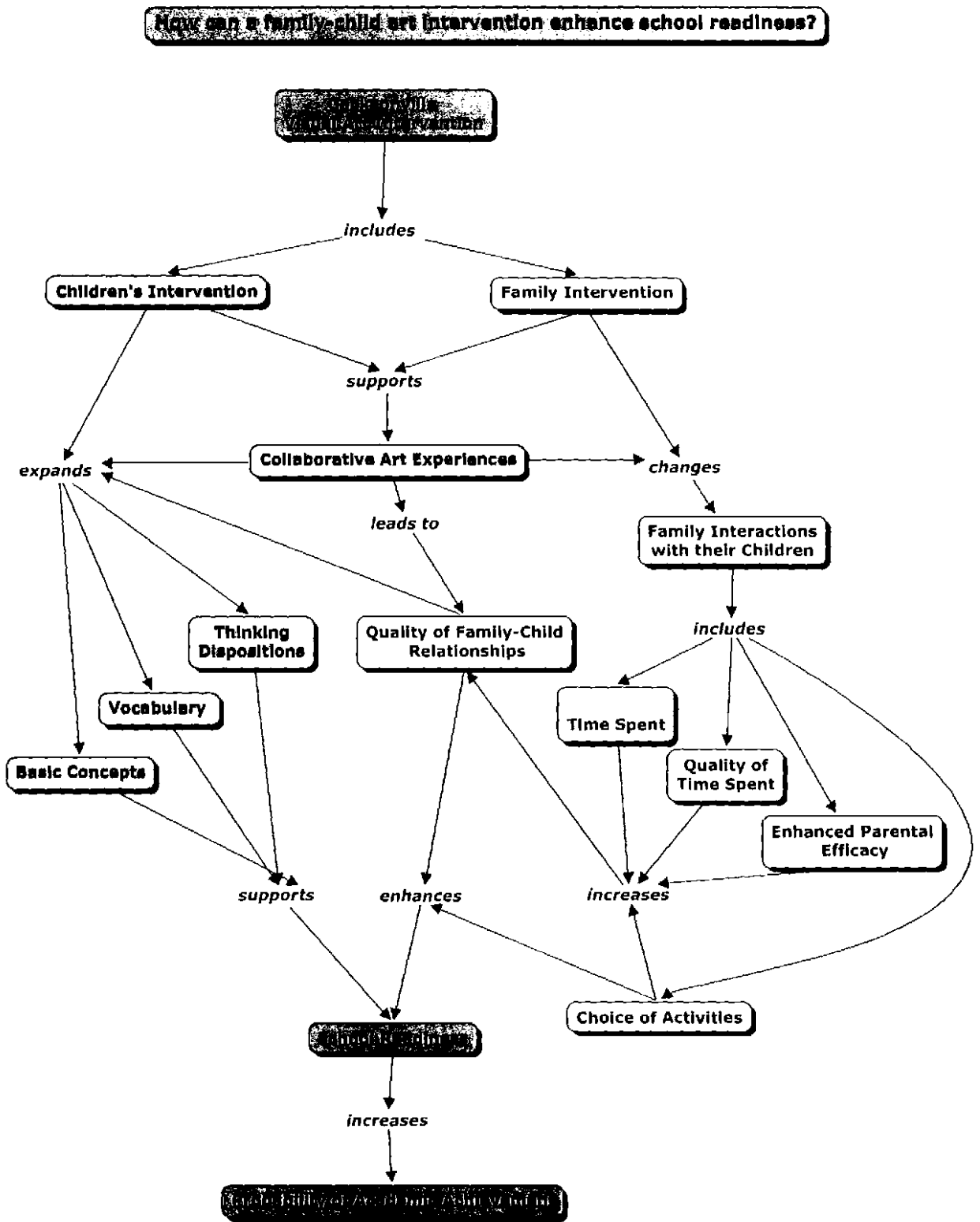


Figure 1. Visual arts family-focused intervention concept map.

Once the theory of action was defined, I chose instruments to gather data to address the research questions and assess the various components of this action plan. I chose instruments compiled in an existing parenting questionnaire to address the parenting components and a readiness scale focused on basic concepts to address the child components. A survey tool was created to collect data on the home learning component of the design. Chapter III will describe in detail the methodology that was employed in this study.

CHAPTER III

METHODOLOGY

The research design of this descriptive study was employed to assess the impact of a visual art, family-focused, pre-kindergarten school-readiness intervention on parental efficacy and family involvement and on children's basic concept knowledge. Data were collected in a non-randomized one group pre-test/posttest design (Creswell, 2002) from students on a standardized instrument and from adults using self-report questionnaires.

In addition, I kept a journal of the implementation process to include information supplied by the parent educator and the art educators from the local museum involved in implementation. The visual arts activities experienced by the children were recorded in the form of field notes which I collected during the course of the study. For this portion of data collection, I followed the process defined by Guba and Lincoln (1981) in which the investigator functions as the primary instrument for collecting the data. I was responsive and adaptive to the research environment to capture both verbal and nonverbal aspects of the experience. All field notes were summarized and were part of the data analysis process. A parent engagement survey tool designed by the investigator was used to record data focused on the home learning portion of the intervention. This study was implemented during the 2006 summer months.

The following research questions were addressed:

1. Does a targeted visual arts family-focused intervention impact families'
 - a. level of involvement?
 - b. parent-child relationship?
 - c. parental efficacy?
2. Does a targeted visual arts family-focused intervention impact children's basic concept knowledge?
3. Is an increase in parental involvement and/or parental efficacy associated with an increase in children's basic concept knowledge?

Description of Study Setting

The visual arts family-focused intervention study was held at the Bradham Brooks Regional Library located in a low-income neighborhood in the city of Jacksonville, Florida. This library was equipped with a large classroom that had ample space to provide appropriate learning experiences for 20 pre-kindergarten students. The classroom was divided into four learning centers and a large group space. A conference room was also available to host the parenting portion of the intervention. For seven weeks, families attended weekly workshops that included family conversations, active learning experiences for young children, a collaborative family art experience and activities to complete at home between each session. The intervention took place from 10:30 am to approximately 12:00 pm. Child care was provided for siblings of the target-aged children in the children's section of the library, with learning experiences provided by the children's librarian and certified teachers.

Description of Study Sample

The families of four-year-old children attending preschools in the St. Clair Evans and Carter G. Woodson school attendance areas attended the family-focused visual arts summer camp. They had been invited to attend by their children's preschool teachers and day care center directors. A parent educator was responsible for the recruitment of these families and provided an overview of the family workshops and incentives embedded in the plan to the day care center directors. The overview included information about the 14 free children's books and accompanying learning materials, free snack, free child care and free field trip to a local art museum with an age-appropriate children's section to explore. The incentives included information about weekly door prizes, free tickets that could be earned for family outings and a stipend for participating in the pre and post interviews.

Families were accepted on a first come, first served basis, although an effort was made to recruit from the same centers to ensure a social networking opportunity for the families. The total number of children was capped at 20 due to the design of the intervention and the amount of available space at the designated site. Of the 19 target child participants whose parents signed the informed consent and were assessed, 11 attended two or more sessions. Eight target child participants attended four or more sessions, and 3 participants attended all seven sessions.

Description of Intervention

The visual arts family-focused pilot intervention was offered in the format of a family summer art camp held once a week for seven consecutive weeks. The scheduled

time for the camp was Saturday mornings at 10:30 am. Family camp gatherings consisted of approximately 105-minute sessions. For the first 60 minutes parents and children were engaged in different activities in separate rooms. In the last 40 minutes, parents and children were engaged in collaborative art experiences. One session included a tour and shared art experience at a local art museum. The collaborative art experiences were led by museum educators from this local art museum and were designed to complement the curriculum focus for each session.

All participants received weekly take-home activities, including Caldecott award winning picture books and materials to complete art and learning activities at home to support the focus for each session of the camp. Some activities were demonstrated by the parent educator before they were sent home. The family conversation portion of each session included opportunities for families to learn more about the impact of increasing early learning activities for young children and the link to school success. The child classroom experience focused on arts-infused activities linked to basic concepts, with emphasis on shape, number and quantity.

The overall target goal for parents included enhancing parenting self-efficacy and increasing levels of involvement in supporting student learning. The intervention also included specific performance objectives for children focused on basic concept development, following the guiding principles defined by the Arts Education Partnership and the Task Force on Children's Learning and the Arts: Birth to Age Eight (Goldhawk et al., 1998) in the document *Young Children and the Arts: Making Creative Connections* and the *Florida Voluntary Pre-kindergarten Education Standards*.

In order to reduce the achievement gap that exists for economically disadvantaged children, parents had access to materials and knowledge to support the development of basic concepts that provide the foundation for future academic learning. Basic concepts include an understanding of shape, size, numbers and quantity, letters, comparisons and colors. The elements of art including line, color, shape, space and texture formed the foundation for focused experiences used to build conceptual understanding of the targeted basic concepts. For example, the art element of *line* was explored in the context of letters.

Quality artwork was shared in a familiar picture book format to help children focus more on the artistic elements rather than the delivery system. For this intervention, Caldecott honor and award-winning picture books were used as the starting point for examining visual artwork. This award is given to a select few picture books each year in the United States for illustrations with a distinct artistic style and technique that clearly support the text and meaning of the story. Activities for the children to complete with their parents stemmed from these books, and each family was given a copy of each Caldecott book used in the intervention to add to their home libraries.

Three components of the intervention took place at the library. For the first hour, two components took place simultaneously. In one room of the library, the parents gathered for planned activities and discussions with a family involvement educator. Their sessions included an interactive read-aloud of the target Caldecott book, demonstrations of how to complete at-home activities, and family conversations and activities focused on responsive parenting. In another room of the library, the children gathered with the investigator, an early childhood specialist, for arts-infused planned

activities focused on targeted readiness skills, including print concepts and basic concept knowledge facilitating both verbal and symbolic communication. During the last 40 minutes of each session, the parents and children engaged in joint art experiences to enrich their conversations and enhance their relationships. These collaborative art experiences also provided opportunities for parents to support student learning and to build shared experiences consisting of negotiations and problem solving.

The fourth component of the intervention was designed to take place in the home. Each family was given a large bag each session with books to keep and activities to complete between sessions. Surveys were included with each set of weekly materials for parents to record the completion rate of activities. Open-ended questions allowed parents to provide specific feedback on the books and activities sent home each week. The take-home activities were designed to extend the classroom experiences and increase symbolic and verbal communication for the children. The activities were presented in a carefully designed manner to enhance the sense of parental efficacy of adult participants and to increase their level of family involvement to support the development of their children's readiness skills.

The arts-based intervention included a visit to a local art museum with a family art workshop and developmentally appropriate tour. Families experienced connections to community resources that are available for their enjoyment and personal growth. Children became familiar with the roles of a library and art museum within a community. An evening art exhibition at the library following the last session was planned as a culminating event celebrating the success and learning that had taken place. Children's individual artwork and parent-child collaborative artwork were displayed in an

aesthetically pleasing manner for the art exhibition and included their three-dimensional clay sculptures of mice. Documentation boards as described by the Reggio Approach were hung throughout the exhibit to share children's artwork with descriptions of the learning process.

Because the design and delivery of this intervention were integral components of the research, each will be addressed in detail in Chapter IV. Including the library and the art museum in the delivery of this arts-based intervention may facilitate community involvement in sustaining the intervention over time. Familiarity with a library and an art museum may help to provide continued access to books and art experiences beyond the scope of the intervention. The arts reflect our communities, and this arts-based intervention provided an opportunity to facilitate the development of more engaged families within their community and more ready children.

Instrumentation

Many instruments focus on measuring family involvement and potential impact on student outcomes. Empirical research remains limited in this field. The instruments selected for this study were focused on families and their children. The target family goals of the program were to build on family strengths and increase parental sense of responsibility, parental efficacy and level of family involvement in their children's academic learning. The intervention was designed to provide shared experiences that enrich conversations and enhance relationships. The target goal for the children was to increase their basic concept knowledge and readiness for kindergarten. The instruments were selected to measure growth in the target goals.

The following instruments were used in the study.

1. *Bracken Basic Concept Scale-School Readiness Composite* (Bracken, 1984, 1998)
2. *The Parental Self-Efficacy for Helping Children Succeed in School Scale* (Hoover- Dempsey & Sandler, 1995, 1997)
3. *Family Involvement Questionnaire: Home-Based Subscale* (Fantuzzo et al., 2000)

A parent engagement measure titled *At-Home Survey* was also used. It was designed for purposes of the current study to capture the home learning experiences.

Bruce A. Bracken (1984, 1998) designed and revised an instrument used to measure young children's basic concept development. The test was developed to be the most comprehensive measure of children's basic concept development. Approximately 300 basic concepts are included in the full instrument and are presented in a highly consistent fashion. A Spanish version of the test is also available. The range of ages for this test includes children who are 2 years, 6 months to children who are 7 years, 11 months. The standardization for the revisions included more than 1,000 students from a variety of backgrounds and SES levels. Normative data allows comparisons with children of a similar age across the United States. "The median subtest and total reliabilities are .94 and .99 respectively" (p. 63). The test-retest reliability for scores on the SRC is .88 and for the whole test is .94.

The school readiness composite (SRC) of the *Bracken Basic Concept Scale-Revised* standardized instrument selected for the children has been used extensively in research to predict the performance of young children. The SRC consists of recognizing 11 colors, 16 letters, 15 numbers, 12 size dimensions (big, little, small, tall, deep, long, short, thin, large, wide, shallow), 10 comparisons (not the same, different, match, alike,

same, similar, equal, unequal) and recognizing a variety of one-, two- and three-dimensional shapes. The test was designed to minimize verbal expression by the child and without a time limit for taking the test. Typically the SRC can be completed in approximately 15 minutes. When a child missed three consecutive items, the tester moved to the next subtest.

The instruments that were selected for the parents were a collection of self-reports using a Likert scale that have been used often in family involvement research. Hoover-Dempsey and Sandler (1995, 1997) designed the parental efficacy scale selected for this study. The *Parental Self-Efficacy for Helping Children Succeed in School Scale* consists of 7 survey items targeting parent beliefs about their effectiveness in helping elementary-age students with academic tasks. This tool was recently revised to be used in a study with young children (Young, 2005). The revised scale was piloted and yielded scores with an internal consistency reliability coefficient of .89. This version of the test was used in the present study. The Likert scale for items on this instrument ranges from 1 (*rarely*) to 6 (*agree very strongly*). A summary score was calculated for families' responses, and then an average score was calculated for the participants. Then pretest and posttest mean scores were compared to calculate gain scores.

The Family Involvement Questionnaire was developed by Fantuzzo et al. (2000). The questionnaire is divided into 3 subscales and consists of a total of 42 items. The *Home-Based Subscale* consists of 13 survey items targeting home environment and out-of-school experiences that support the learning process. The Likert scale responses include 1(*rarely*), 2 (*sometimes*), 3 (*often*) and 4 (*always*). A summary score was calculated for families' responses and then averaged for the adult participants. This

instrument was used to measure families' level of involvement in supporting their young child's learning in the home environment. This scale touches on parental role construction, which includes a sense of parental responsibility for promoting a learning environment in the home and for providing activities outside of school that support academic learning. A Cronbach's alpha of .85 was reported for scores on the home-based subscale (Fantuzzo et al.).

Demographic information was collected on the families and included age, education, ethnicity, gender, number and ages of children and current social network. All families included in this intervention had children attending day care centers in an impoverished neighborhood in a mid-sized city. Field notes were kept to reflect participation during the collaborative art portion and child classroom component.

Parent engagement information was collected following each session on the *At-Home Survey* that was included in the activity bag. The *At-Home Survey* changed weekly to include the specific names of the books and activities in the packet. Information on how many times the two books were read, how many times take-home activities were completed and the number of visits to the library between each session were asked each week in a similar format. Three open-ended statements were included on the take-home surveys, and they read as follows:

1. One thing I liked about the take-home visual arts activities:
2. The hardest part of the activity to complete was:
3. List any other activity you and your child completed using books in a previous take-home packet.

The post-intervention interview also included two qualitative questions aimed at gathering information regarding the overall impact of the intervention and the participants' sense of the value of information that was shared. The two questions asked were the following:

1. What will you do differently to support your child's learning following this family workshop experience?
2. What kinds of activities would you be interested in participating as follow-up to the workshop?

All of the data collected with the formal instruments along with the surveys and field notes help to tell the story of the impact of this visual arts family intervention. Parents were also contacted weekly on the phone between sessions to answer any questions they had regarding take-home activities. In this study, parents were invited to share their feedback throughout the intervention.

Protection of Participants

The data collection of parents was embedded in the Early Learning Opportunity Act grant awarded to the Jacksonville Children's Commission on behalf of the Jacksonville Early Literacy Partnership. In cooperation with the Florida Institute of Education, IRB approval was secured for the targeted 100 family participants during this 17-month grant.

The data collection of student participants was addressed with an IRB approval that included an informed consent form for primary caregivers to sign. The consent form is included in Appendix B. The language on the consent form was simplified to avoid

misinterpretation and confidentiality was addressed. The students were assessed using *Bracken Basic Concept Scale-School Readiness Composite* (SRC) to measure basic concept knowledge.

Data Collection and Analysis

The data analysis addressed the following null hypotheses.

1. There will be no difference between the level of family involvement of low-income parents before and after the family-focused visual arts intervention.
2. There will be no statistically significant difference between the parental efficacy of families before and after the intervention.
3. There will be no statistically significant difference between the school readiness composite score of children before and after the intervention.
4. An increase in parental involvement and/or parental efficacy will not be associated with an increase in children's basic concept knowledge.

All of the data were collected from families and children before and after the intervention. Quantitative data were analyzed using SAS software to include descriptive data for the results acquired using the formal instruments and to calculate correlations between parent and child data. A comparison of gain scores was used to address question 3 to focus on the improvement of scores from pre to post for this group of children. The impact of the visual art intervention was examined with data tables and discussion as defined in Table 1.

Table 1

Summary Table of Data Analysis

Research Questions Family and Child Outcomes	Data Collection Instrument	Analysis (Creswell, 2002)
1. Impact on level of involvement (Family)	<i>Family Involvement Home-Based Subscale</i> <i>At-Home Survey 1-7</i>	Compared means Identification of major themes
2. Impact on parental efficacy (Family)	<i>Parental Self-Efficacy for Helping Children Succeed</i> <i>At-Home Survey 1-7</i>	Compared means Identification of major themes
3. Completion rate of take home activities (Family and Children)	<i>At-Home Survey 1-7</i>	Descriptive statistics
4. Impact on basic concept knowledge (Children)	<i>Bracken Basic Concept Scale School Readiness Composite</i>	Compared means Descriptive statistics
5.a Relationship between increases in parental efficacy and basic concept development	<i>Parental Self-Efficacy for Helping Children Succeed</i>	Correlation coefficients
5.b Relationship between increases in family involvement and basic concept development	<i>Bracken Basic Concept Scale School Readiness Composite</i> <i>Family Involvement Home- Based Subscale</i> <i>At-Home Survey session 7</i>	Descriptive statistics <i>At Home Survey 7</i> total score Attendance

The *At-Home Survey* qualitative responses were addressed in the following manner. The investigator made lists of all the survey responses to examine the distribution of responses. An editing analysis style was used by the investigator to identify potential categories for the responses (Marshall & Rossman, 1999). The investigator was open to the messages communicated by the participants regarding their use of the learning materials that were provided. Guided by the focus of the first research question, the investigator coded responses focused on enhanced parent-child interactions and remained open to other categories that emerged. Specific parent comments and the weekly completion of the home learning activities are discussed in Chapter IV.

While examining the lists of responses, two participants stood out in terms of their progression during the workshop chronicled in their responses. One child was male and the other female, and they were approximately the same age and they attended approximately the same number of sessions. Both adult participants grew in their awareness of the importance of being involved and staying involved in their child's learning. These stories appear at the end of Chapter IV and help to personalize the presentation of data that supports the impact of this arts-infused intervention.

Limitations

This study was limited to one visual art family-focused school readiness intervention with eleven participants who attended at least one third of the sessions. The participants were recruited from a designated geographical area and are all considered low-income families. The pilot did not include random selection or assignment. Because the study was embedded in a larger grant effort to increase family involvement of at risk

children, the sites for recruitment were designated, as was the content of the parenting conversations portion of the intervention.

Another limitation was the inability of the parent questionnaire to access the richness of the intervention experience. The two qualitative questions included in the post interview provided more depth regarding the perceived value of the intervention for adults than all the other questions posed in the questionnaire. The child assessment was limited to documenting growth of readiness skills measured on the standardized instrument. Despite the limitations, the family-focused intervention was implemented for seven weeks in a neighborhood library during the summer months. Implementation proceeded each week without complications. The host site was very cooperative, and families appeared to be at ease in this setting.

Chapter Conclusions

Despite the limitations of the standardized instruments chosen to measure adult gains, the *At-Home Survey* sent home weekly provided valuable information regarding the take-home activities and parent-child interactions within the home learning environment. Post interview questions also yielded important information regarding potential long-term benefits. The SRC yielded the necessary information to assess the basic concept development of the child participants. Chapter IV presents findings regarding the overall success of this family intervention and addresses each research question individually. Chapter IV also includes a descriptive section of the design and implementation process that define this arts-infused family intervention.

CHAPTER IV

DATA PRESENTATION

The data presentation and analysis provides an understanding of who participated in the family intervention and how often they participated. This is followed by an overview of the four components of the intervention and the implementation process. The results section includes a presentation of the data collected and documentation focused on the impact of this intervention. The evidence is organized around the research questions posed at the onset of the study.

1. Does a visual arts family-focused intervention impact families' level of involvement?
2. Does a visual arts family-focused intervention impact children's basic concept knowledge?
3. Is an increase in parental involvement and/or parental efficacy associated with an increase in children's basic concept knowledge?

The last section of the chapter provides answers to these questions.

The Participants

The targeted population for this intervention was low-income families. This study included both adult participants and child participants. The adult participant was defined as the primary caregiver for a child participant. The child participant was defined as a pre-kindergarten child. A primary caregiver and pre-kindergarten child team was required for participation. All of the participants were recruited from child care centers in the designated zip codes specified in the ELOA grant.

Primary caregivers were interviewed before and following the intervention. Demographic information in the interview included age, education level, marital status, home zip code and household income. The only demographic information collected for child participants was gender and date of birth. All primary caregiver relationships with child participants were mother-child except for one that was great aunt-child. The home zip codes varied for the participants. All of the adult participants were African American except for one, who was Hispanic.

A total of 14 adult participants attended at least one session. Of the 11 adult participants who attended two or more sessions, 7 were married, 2 were never married, 1 was separated and 1 was divorced. Household incomes ranged from below \$10,000 to as high as over \$60,000. Two out of 11 adult participants had a household income under \$10,000, 7 had household incomes between \$10,000 and \$35,000 and 2 had incomes over \$40,000. Adult participants ranged in age from the mid-twenties to mid-fifties. Three of 11 adult participants were between the ages of 20-29, 5 were between 30-39, 2 were between 40-49 and 1 was between the ages of 50-59. The education level of adult participants ranged from 2 participants with a HS diploma to 1 participant with a

bachelor's degree. Seven of the adult participants reported having attended some college and 1 had an AA degree.

The child participants who attended at least twice consisted of 5 boys and 6 girls. As reported in Figure 2, the children's ages ranged from 56 months to 68 months old measured at the start of the intervention. All child participants except 1 were eligible to begin kindergarten in the fall. Five children were between the ages of 65 and 69 months, 3 were between 60 and 64 months and 3 were between 56 and 59 months.

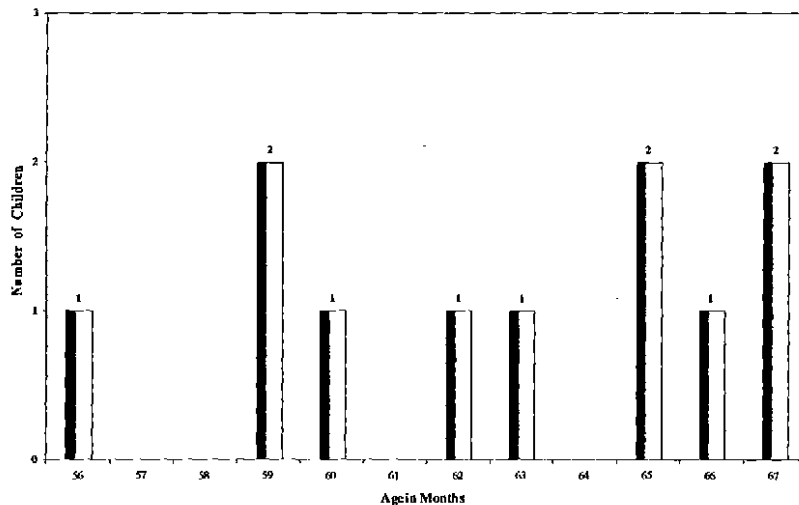


Figure 2. Ages of child participants.

All of the primary caregivers brought their participating children each week, except for two occasions within the seven weeks when two adults attended without their children. One father participated three times in the seven weeks, another father participated in one of the collaborative art experiences, and 1 father and 1 grandmother attended the field experience at the art museum. Eleven adult participants attended the first session, but 3 of those participants never attended another session. One was in a car

accident between the first and second session and therefore lacked transportation. The other 2 parents did not report why they were no longer participating in the intervention.

Table 2

Attendance for Participants and Survey Return Rate by Session

Session	Number Primary Adults Attending	Number Target Children Attending	Number Surveys Returned
1	11	10	6
2	7	7	6
3	8	8	8
4	8	7	5
5	7	7	6
6	8	8	6
7	9	9	7

As reported in Table 2, an average of 8 participants attended each session. Of the 11 participants who attended two or more sessions, 63% attended five or more sessions. Three of 11 participants attended all seven sessions. At least six surveys were returned following each session except session four in which only five were returned. The last session was well-attended, and 7 of 9 participants mailed in their surveys following this session.

Design and Implementation of the Intervention

Because the design of the visual arts family intervention was an important element of this research, the components of the intervention are described in some detail. The visual arts family-focused intervention consisted of four major components. These components included a parent-only experience known as parenting conversations, a child-only classroom experience, a joint parent-child art experience and a parent-child

home learning experience. This family-focused arts intervention took place weekly on Saturday mornings for approximately 1 hour and 45 minutes for seven consecutive weeks. An art exhibit featuring the artwork of the children and the collaborative artwork with their parents followed the 7th session and was well attended by the participants and their extended families. Refreshments were available and parents and children received awards for participation in the family workshop.

Each weekly session concluded with the families taking home a large red bag filled with two books and learning activities to complete before the next session. The families kept the contents of each bag. Each bag also included a survey called *At-Home Survey*, with questions regarding the number of times books had been read and corresponding learning activities that had been completed. The survey changed weekly to include the specific name of the books and activities for each session. The survey asked the participants what they liked about the activities and what they found difficult. One question asked participants if they had completed any activities from a previous bag. A family coach called each participating family midway through the week to provide assistance as needed with the completion of targeted activities. Participants were awarded points for returning the surveys which they traded in at the end of the last session for tickets to a family-focused event from a menu of choices provided to them.

Because the intervention took place in a library, participants were also asked about visits to the library between sessions and number of books checked out. One of the parents visited the library regularly between sessions from session one through seven. This parent may have already been doing so before the intervention began. Several parents visited the library between sessions on more than one occasion throughout the

workshop experience. The families seemed very comfortable in the library setting, and the children's librarian invited them to participate in book activities scheduled to take place following session seven.

The four components of the family intervention as listed by session in Table 3 were designed to complement one another with an ultimate goal of increasing family involvement with the child's learning in the home to increase school readiness and school success. Parenting conversations and the child classroom experience took place simultaneously for the first hour of each family workshop. The collaborative classroom art experience followed, and the final component took place in the home learning environment. Parent-child interaction was facilitated during the collaborative portion of the workshop and home activities were designed for a parent-child team to complete.

Table 3

Overview of Four Components of Intervention

Session	Child Class Focus	Parenting Class Focus	Joint Art Experience	Home Activity Focus
1	Power of line and symbolic communication	Importance of play Home Activity	Jazz duet exploring line with music	Exploring lines connection to letters
2	Color and communication Comparisons	Temperament of child Home Activity	Moving train mixing colors with oil pastels	Color, size and comparisons w/ single attribute
3	Color, numbers and quantity and 5 Senses	Rituals and routines Home Activity	Child's room coloring and counting	Color, quantity and letters and 5 Senses
4	2D and 3D shape exploration	Parenting styles Home Activity	Shape picture bookmarks abstract art	2D and 3D shape exploration
5	Texture, space and shape in Art Museum	Field experience to Art Museum	Hands-on section and watercolor	Texture, quantity and comparison
6	Quantity, space and nonverbal communication	Goals and aspirations Home Activity	Self-portrait tear art and emotions	Quantity, space, shape communication
7	Space and shape	Dialogic reading Home Activity	Clay mice exploring the medium	Cumulative review of basic concepts

Component 1: Parenting Conversations

Parent-only experiences were a series of parenting conversations that were previously designed for a family involvement program targeting parents of four- and five-year-old children. The parent only experience also included a designated amount of time

to address the target book and weekly take-home activities that were specifically designed for this visual arts intervention. The parent-only experience lasted approximately one hour. The series of parenting conversations consisted of five sessions, and the topics covered included play, parenting styles, rituals and routines, temperament of the child and current expectations and future aspirations. Each of the five sessions was led by a parent educator and assisted by a family coach who contacted families between sessions regarding the completion of take-home activities. Families were encouraged to participate and share personal experiences focused on the weekly topic.

As an example, the first session of the parenting conversation component was focused on play. Parents entering the room found play centers to explore. On the tables in the room were puzzles, a water basin with toys, small wooden blocks and play dough. Parents explored the play materials for about 10 minutes. After parents had an opportunity to try a few centers, a discussion of the importance of play and learning for young children followed. Parents were asked to share their favorite play activities when they were children and also their children's current favorite play activities. The discussion of play activities led into a demonstration of the take-home activities and materials bag that the families were given that week. The take-home activities were designed to extend the classroom learning for the children.

Week seven was the last workshop session for the families and was structured differently from the previous weeks. The family conversation was led by the early childhood educator, and parents gathered in the classroom while the children visited the children's section of the library for a reading of the target book. The parents were encouraged to generate their own questions for the target book. The activity cards had

served as a model for the parents to feel empowered to create their own questions based on skills that their individual children had not mastered. Parents participated enthusiastically during this portion of the morning and generated questions following the dialogic reading model that they had been exposed to the preceding weeks.

Component 2: Child Classroom Experience

The child classroom experience was designed to integrate elements of the visual arts with basic concepts that are an integral part of school readiness. Children gathered in a community room of the library to engage in hands-on arts-related activities focused on building basic concept knowledge. The classroom was divided into four centers and one large group area for whole-group activities. The designated learning theme for the children was “The Shapes and Colors of Me and My World” and focused on learning basic concepts, including colors, letters, numbers, shapes, sizes and comparisons and art elements including line, color, shape, space and texture. All of the classroom activities, collaborative activities and take-home activities were created with the intent of developing observation skills, perspective-taking skills and communication skills for both parents and their children. The development of skills such as the ability to be self-directed, to problem solve, collaborate, plan and communicate effectively were an integral part of the curriculum development for this project. Essential understandings as listed in Table 4 were targeted, and performance objectives as listed in Table 5 were operationally defined.

Table 4

Essential Understandings for the Intervention

Essential Understandings
Seeing is different from looking
People communicate in a variety of ways
Symbolic communication is powerful
Art is a unique form of self-expression connecting thinking and feeling
Books are a window to another perspective
Patterns exist in all parts of our lives
People have different perspectives which deserve respect
Appreciation increases with understanding
Fine art enhances understanding of diversity
Beauty exists in unexpected places
Shape can represent a variety of things with a similar structure for young children
Choice is a critical element of art

Table 5

Performance Objectives for the Intervention Operationally Defined

Demonstrate growth as skilled observers of artwork by looking closely and describing what they see and feel about a piece of artwork- understanding and appreciation

Recognize elements of art- line, shape, color, texture and space- patterns, relationships and functions

Identify 2 and 3 dimensional shapes in their environment and recognize and identify relationships and distinguishing attributes

Create recognizable geometric shapes and use art techniques to communicate symbolically and more fully express ideas, thoughts, feelings and evolving concepts

Identify size differences in terms of height and length and make comparisons among objects according to a single attribute- bigger, longer, shorter, heavier

Increase art vocabulary and environmental print awareness- understanding of words

Recognize capital letters, letters in their names, and shapes embedded in those letters

Increase knowledge of print concepts such as spacing between words, punctuation marks, and front and back cover of books- structure of written composition

Communicate connections in books and artwork to self, text and world and recognize relationships between characters- understanding of text

Recognize primary and secondary colors, explore mixing primary colors to make secondary colors- observe and explore materials and natural phenomena

Recognize purpose of libraries and art museums- describe community jobs

Recognize numbers and quantities to ten- understanding of number and quantity

Demonstrate initiative and flexible problem solving when confronted with new tasks

Note: Developed by consulting guiding principles defined in *Young Children and the Arts: Making Creative Connections* (Goldhawk et al., 1998) and *Florida Voluntary Pre-kindergarten Education Standards* (Office of Early Learning, 2005).

The Office of Early Learning *Florida Voluntary Pre-kindergarten Education Standards*, VPK (2005), Consortium of National Arts Education Associations *National Standards for Arts Education: What every young American show know and be able to do* (1994), and the *Florida Sunshine State Standards* (1996) for the visual arts, reading, science and mathematics were linked to all student components of the project. Examples of VPK standards included “Begins to recognize and describe the attributes of shapes,” “shows beginning understanding of number and quantity,” and “asks questions and uses senses to observe and explore materials and natural phenomenon.” Emerging language and literacy components such as print concepts, vocabulary development and conversational skills such as using expanded vocabulary were integrated throughout the experience. All take-home activities were linked to age-appropriate books, and the target book sent home each week was a Caldecott award winning book. The Caldecott award is given annually to books that meet the following criteria as listed on the American Library Association website: “excellence of execution in artistic technique employed, excellence of pictorial interpretation of story, theme or concept, excellence of appropriateness of style of illustration to the story, theme, or concept, and excellence of delineation of plot, theme, characters, setting, mood or information through the pictures.”

Visual arts standards for the intervention were created by combining *Florida Voluntary Pre-kindergarten Education Standards* (2005) for the arts, *National Standards for Arts Education: What every young American show know and be able to do* (1994) and *Florida Sunshine State Standards* (1996) for visual arts.

- Expression—Creates artwork using a variety of art materials
- Representation—Communicates a range of subject matter, ideas and symbols

- Observation and Communication—Recognizes and uses the elements of art
- Understanding and Appreciation—Responds to artistic creations and events
- Application to Life—Makes connections between illustrations in picture books and other forms of art and the real world

Children gathered in the classroom each week for approximately one hour.

Centers for building blocks and easel painting were available each week. As children arrived, they had an opportunity for free art exploration. This was followed by a whole-group time in which the target book was read and weekly target concepts were emphasized.

For example, the first week the focus element of art was “line” and the basic concept was “letters.” The Caldecott award-winning book *Ben’s Trumpet* was read. The children had the opportunity to touch a real symphony trumpet, examine the parts and listen to Louis Armstrong play the trumpet on a CD. During center time, the children explored the power of *line* and its connection to communication. At one center, the children walked the “sound line” of the trumpet, as depicted with masking tape on the floor with sharp angles, and pretended to play the trumpet while walking on the tape and listening to the trumpet playing on the CD. While easel painting, the children explored making thin and thick lines as well as angled, wavy and curved lines. The block center encouraged children to make a road that included straight, angled and curved parts. Children also had an opportunity to finger-paint lines and explore lines in letters by using pipe cleaners and an alphabet chart. At the end of the hour, the children cleaned up the classroom to prepare for the collaborative portion of the morning.

Component 3: Joint Parent-Child Art Experience

The joint experience was designed to complement the classroom activities and curricular focus. Parents and their children were provided an opportunity to create a piece of artwork as a team. An art education director from a local art museum designed activities that were age-appropriate and engaging for both parents and children. The collaborative portion lasted approximately 30 minutes. Each week the art medium changed and children had a chance to explore watercolor paints, crayons, markers, collage, oil pastels, and clay during the sessions. The art educators also referred to the target Caldecott book and fine art paintings brought from the museum to share with the families.

During the first session, the parents and children worked together to explore making lines like a jazz duet while listening to jazz music playing on a CD. Children and parents used a black crayon as a conductor's baton and followed the tempo of the music to create a variety of lines on a large piece of paper. When the music stopped the parents and children would put their crayons on the table and wait. Once the paper was filled with swirling and angled lines, the families were given watercolor sets to add color to their creations. The families experienced a sense of shared ownership, and everyone seemed pleased with both the process and the product. Families left their artwork to be displayed at the family art show at the conclusion of the seven-week family workshop.

For the week five session, the parents and children met at the library and then rode a school bus to a local art museum for an age-appropriate tour for young children and art-focused experience led by one of the art educators from the museum. A father and a grandparent also attended the field trip. The bus ride, hands-on museum section exploration time, interactive museum tour, and joint watercolor and poetry art experience

provided a morning of shared learning and fun. At the museum, the children were each given a children's book focused on the museums in their city.

In the week seven session, the families worked together molding clay and creating three-dimensional mice sculptures as an extension for the target book, *Seven Blind Mice*. The clay experience was engaging, and parents seemed to enjoy molding the clay and exploring texture as much as the children. One parent walked around the room showing her mouse creation to each adult participant, seeking reactions and support. The clay mice were collected by the museum educators to be fired in the kiln at the museum to prepare for the art exhibit. Families also enjoyed making and eating their own ice cream sundaes for a snack at the conclusion of this last session of the workshop.

Component 4: Parent-Child Home Learning Experience

The home learning component was designed to take place at home between each session. Families were given a bag filled with activity cards and materials to take home each week. The home learning experiences were designed to revolve around the items and books in the "red bag." Parents and children seemed excited about the red bag. Adult participants made weekly comments such as, "My kids are always wanting what's inside the red bag," and "What do you have for us in the red bag this week?" The children learned very quickly that the materials in the red bag were activities for them to complete at home between sessions.

The bag included two books each week, along with three activities for each book. Each book had a question activity card that encouraged children to respond to and connect with the text. The questioning techniques followed the dialogic reading model which has been found to be quite successful with low-income families, facilitating

literacy development for their young children. Parents were encouraged to ask follow-up questions that fostered a dialogue to take place, with the parents responding to and expanding upon what the child said. This method was developed to encourage oral language development and is well-supported in the research (Whitehurst et. al, 1994).

All of the materials needed to complete the activities were individually packaged and arranged in the red bag. All of the activities were tied to educational standards listed previously and were written using simplistic vocabulary for ease of home implementation as noted in Figure 3. Each bag also contained an *At-Home Survey*, included in Appendix C, each week for parents to provide feedback on all of the activities and books.

Activity # 2 for book: *Ben's Trumpet*

Name of activity: Name Puzzle

Directions:

1. Read *Ben's Trumpet* before completing the activity.
2. Point out to your child that in *Ben's Trumpet*, the artist/illustrator used angled lines to communicate the sound of the trumpet. Explain that angled lines are lines that bend to form a point.
3. Invite your child to find a page in the book with angled lines and trace the lines with his/her finger.
4. Talk about three kinds of lines: angled: bends to form a point, curved: bends around, and straight: no bend.
5. Take out your child's name cards (first and last name) from your red bag.
6. Point to each letter in your child's name and ask him/her to say the letter (provide assistance as needed).
7. Talk about how the letters in his/her name are formed using straight, angled and curved lines.
8. Take out the name puzzle pieces from your red bag and model for your child how to assemble the puzzle.
9. Encourage your child to put his his/her name puzzle together.

Arts Project Extension: After your child puts the name puzzle together several times, take the markers, glue stick and a piece of drawing paper out of the red bag. Invite your child to glue the name card in the center of the drawing paper. Encourage your child to create a line design (angled lines, curved lines, and straight lines) around his/ her name using his/ her favorite colors. Hang the name art on the door to his/her bedroom.

Figure 3. Example of an activity card for session 1.

General guidelines defined the design and selection of activities to ensure that all activities were engaging, purposeful and as personally meaningful as possible. The following guidelines for learning activities supported the fostering of the essential understandings and overarching goals of the curriculum for the child participants.

- Activities encourage an individual, unique response
- Activities require thinking, choice making and problem solving
- Activities expand perspective-taking skills
- Activities expand expressive skills
- Activities result in a sense of accomplishment and contribution

All four components of the family workshop are considered an integral part of enhancing parent-child relationships and increasing family involvement. Children and parents were provided with many opportunities each week to share engaging experiences tied to quality children's books. The intervention was designed to take place in a neighborhood library to encourage familiarity with a place that provides continued access to books and quality book experiences beyond the scope of this workshop.

Presentation of Results

Data about the effects of this intervention consisted of a series of parent surveys following each session, a pre- and post-intervention parent questionnaire, including two open-ended post-intervention interview questions, informal conversations and observations, photographs, and a student basic concept test administered before and after

the intervention. As reported in Table 2, an average of 6 surveys were returned each week. Complete data were available for 9 of the 11 adult participants. Child pre- and post-intervention information were available for the 11 children who attended at least two sessions.

Table 6 summarizes the information recorded on the *At-Home Survey* targeting the average number of times books were read and learning activities were completed in the home between sessions. As reported in Table 6, the target book was read more often or equal to the number of times the second book was read. The target book was typically read twice by the participants. The target book activities were generally completed more often than the second book activities although frequently they were completed about the same number of times. More activities were completed following session three for both the target and second book.

Table 6

Reported Number of Times Books were Read and Learning Activities were Completed

Sessions	N	Target Book				Second Book			
		Read		Activities		Read		Activities	
		M	SD	M	SD	M	SD	M	SD
1	6	2.20	1.60	3.70	0.81	0.83	0.40	3.00	1.09
2	6	2.83	0.80	4.70	2.25	1.83	0.75	3.70	1.50
3	8	2.00	1.30	6.13	4.12	1.80	1.49	5.80	4.70
4	5	2.00	0.71	4.80	1.64	1.60	0.54	4.40	2.30
5	6	1.33	0.82	3.70	2.90	1.50	1.04	3.50	3.02
6	6	1.70	0.82	3.83	3.71	1.33	1.03	3.67	4.20
7	7	2.14	0.70	4.14	2.12	2.29	0.76	4.90	2.12

Also included on the *At-Home Survey* were three open-ended statements for adult participants to complete. The first statement in particular generated a variety of responses throughout the seven sessions. The responses to the first statement, *one thing I liked about the take-home visual arts activities*, provided information focused on increased interaction between the parent and child, engagement with activities and skill acquisition and learning. Examples of responses focused on increased interaction included the following:

- “More time for me and all four of my kids to have extra family time without no TV or radio.”
- “They help me spend some fun time with my daughter.”

Examples of responses focused on engagement with activities included the following:

- “Fun activities for the family to do together.”
- “My children really like enjoy the activities, they are the ones who remind me about the red bag from the library.”

Examples of responses focused on skill acquisition and learning included:

- “It gives me time with her and see how much she’s learned and need to learn.”
- “It is fun and it expand your mind.”
- “Encourage learning for each child in my home.”

The second statement, *the hardest part of the activity*, yielded mainly responses such as nothing, none, N/A or no response. Occasionally, participants responded that they did not have enough time to complete the activities in comments such as, “To do all of them in one week, very busy week,” and “Finding time to do the activities.” A few parents reported an occasional management issues such as “Keeping her still and patient

long enough to learn more,” and, “I try to do the activities with my four year old so it makes my three year old feels left out if she can’t participate.”

The third statement, *other activities you and your child completed using books from a previous bag*, included the names of previous activities or the re-reading of books such as, “Zig Zag Line for *Ben’s Trumpet*,” “He loves the bubbles,” and “Name trace, *Freight Train*.” The participants responded with the names of books more often than with the names of specific activities. *Freight Train* was listed more frequently than any other book. *Freight Train* was also read initially more frequently than any other book sent home.

The survey data provided a window into the fourth component, the home learning activities, and possibly the most important aspect of the intervention. All of the responses collected on the *At-Home Survey* forms were organized into lists according to the three open-ended statements asked and then categorized as themes emerged from the data. As noted above, the three categories that emerged were (a) increased positive interaction, (b) awareness and appreciation of fun and engaging activities, and (c) an understanding of the value of activities and relationship to skill acquisition.

Following the last session, adult participants had an opportunity to respond to two future-oriented, open-ended questions. The first question asked parents what they intend to do differently to support their children’s learning following this family workshop experience.

Responses to this question were very consistent across participants. All adult participants responded with comments indicating an increased focus on parent-child interactions that revolve around learning. For example one parent stated, “Spend more

time with her, read more books, be more involved,” and another parent said, “Now that I have a guide I will use this to help him learn.”

The second question asked what kinds of activities parents would be interested in participating in as follow-up to the workshops. The interviewer suggested some such as regular meetings with other participants and newsletter with suggestions for parent-child activities. All ten participants responded that they were interested in seeking additional information or support. Of those, 5 were interested in newsletters with suggestions for parent-child activities. For example, one parent said, “I can do meetings, the newsletters or whatever it takes for me to learn more to help him learn more.” Seven of the participants were interested in opportunities for social networking. They wanted to attend more meetings and have more opportunities to interact, and 3 of those 7 participants specifically mentioned increased opportunities for their children to interact as well.

All parent participants who were administered a pre- and post-intervention interview which included demographic information, questions about family activities and how much time children spend watching television. One third of the families stated that their children were watching half as much television as they were viewing before the intervention started. One question asked about family activities and the availability of shapes for children to play or build with and one third of the parents stated that they did not have them in their home at the start of the implementation. Parents were also asked if they had visited a library in the past month and one third of the participants had not at the start of the implementation. Only 20% had visited an art gallery, museum or historical site in the past month. Several parents shared informally during the field experience at

the local art museum, that they had never taken their child to an art museum before the visual arts intervention.

The *Family Involvement Questionnaire Home-Based Subscale* (Fantuzzo, McWayne, & Perry, 2000) was completed by adult participants before and after the intervention as part of the interviewing process. Parents responded to 13 questions focused on a range of activities from spending time working on academic skills to taking the child places in the community on a Likert scale of 1–4: 1 (*rarely*), 2 (*sometimes*), 3 (*often*) and 4 (*always*). The pre-intervention mean score was 41.60, and the post-intervention mean score was 42.44 which presents a slight increase with a mean gain of 0.67. However, one participant gained more points on the *Home-Based Subscale* than the rest of the other participants. The pre-intervention was completed by 10 out of the 11 participants, and the post-intervention was completed by only 9 of the participants, which may account for the small size of the gain.

The *Parental Self-Efficacy for Helping the Child Succeed in School Scale* (Hoover-Dempsey, modified for young children by James Young, 2005) was also completed by adult participants prior to and following the family workshops. A tendency for parents to rate themselves high initially was common, leaving very little room for growth or change. Parents responded to 7 questions focused on parents' sense that they know how and are responsible for helping their child succeed in school on a Likert scale from 1-6: 1(*disagree very strongly*), 2(*disagree*), 3(*disagree just a little*), 4(*agree just a little*), 5(*agree*), 6(*agree very strongly*). The pre-intervention mean score was 26.60, and the post-intervention mean score was 24.88, which presented a slight decline with a mean gain of -1.55. Ten parents were interviewed before the intervention. One adult

participant was never scheduled for a pre-intervention interview and one adult participant moved without leaving a forwarding address, following the last session. The participant who was not assessed after the intervention was a participant who attended all seven sessions and whose child made large gains on the basic concept scale.

The child participants were pre- and post-tested using the *Bracken Basic Concept Scale–School Readiness Composite* (SRC) (Bracken, 1984, 1998). Because of confidentiality and small sample size, I did not have access to data at the item level; therefore I could not estimate the reliability of these data. The basic concepts measured in the student readiness subscale included: letters, numbers and quantity, colors, sizes, shapes and comparisons. These concepts were emphasized during the child classroom experience and in the take-home activities. Eleven participants attended two or more sessions and therefore had access to at least two take home packets to complete with their families. Ten of the 11 children recognized all or most of the colors measured at the beginning of the workshop. Five of the 11 children recognized 15 or 16 of the 16 letters that were measured at the beginning of the workshop. The bulk of the intervention activities were focused primarily on numbers, quantity and shapes with some activities targeting letters, colors, sizes and comparisons. All activities were integrated with the visual arts and tied specifically to elements of art defined as line, shape, space, texture and color. Each take-home learning activity was tied to a specific children’s book and included an art project extension.

All participants except one made gains in their overall SRC raw score points. The child participant who did not make any overall raw score gains had a pre- and posttest raw score of 15 out of 88 and was ranked at the 1st percentile. Although this child did not

experience a gain in overall SRC raw score points, this child did experience a gain of three points on the shape concept on the posttest. As reported in Table 7, the largest gains were made in the two highly emphasized areas, which were shapes and numbers/quantity with a mean gain in numbers of 3.10 and a mean gain in shapes of 2.45. Five of the children made at least 11-point increases or more in their total SRC raw scores, with one child's SRC raw score increasing by 16 points and another by 17 points.

Table 7

Child Results for Bracken Basic Concept Scale

Concepts	Time	M	SD	Gain
Letters	Pretest	10.50	6.80	
	Posttest	11.50	6.60	1.00
Colors	Pretest	9.81	3.28	
	Posttest	9.90	3.30	.09
Numbers	Pretest	9.63	6.40	
	Posttest	12.72	5.80	3.10
Shapes	Pretest	9.82	4.02	
	Posttest	12.27	4.29	2.45
Sizes	Pretest	6.55	3.45	
	Posttest	7.63	3.70	1.09
Comparisons	Pretest	4.10	2.80	
	Posttest	4.90	2.30	0.82
Raw Score	Pretest	50.36	21.50	
	Posttest	58.91	20.72	8.55

Research Questions

The research questions posed at the start of this study are addressed individually in this section of the document with evidence to support the results of the family-focused intervention.

Visual Arts Intervention Impacts Families' Level of Involvement

The issue of increased family involvement to support student learning was addressed in a variety of ways. The following evidence suggests that families were engaged with the learning materials that were sent home weekly and that families' level of involvement with their children in the home learning environment did increase during their participation in this intervention. Other evidence included here suggests that this will continue following the intervention.

Figures 4 and 5 visually represent the average of the self-reported number of times books were read and learning activities were completed. These graphs demonstrate the consistency of participation in the home during the intervention. The preference for reading the target book in five of seven sessions is interesting to note.

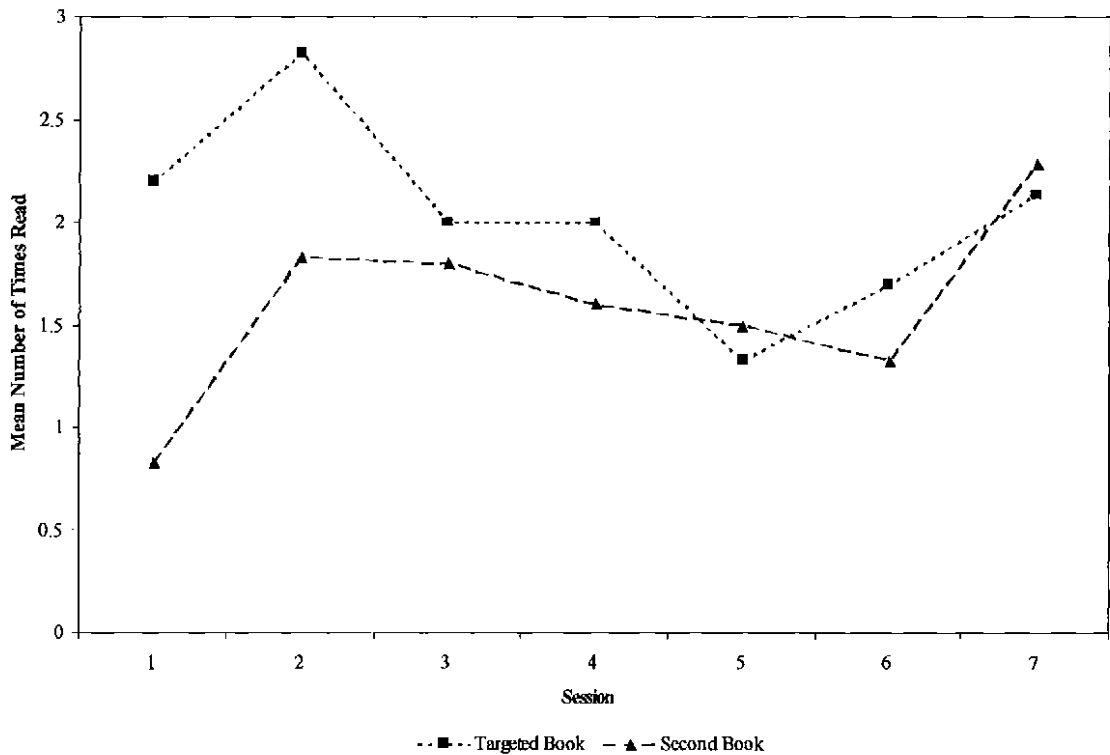


Figure 4. Reported number of times books were read at home.

As indicated in Figure 4, the targeted book and second book were read a minimum of one time following each session. The target book was read more than once each week. The figure shows, that when the targeted and second books were combined, approximately three reading episodes took place each week between sessions, with a peak in weeks two and seven in which over four reading episodes occurred. It is interesting to note that week five was the field trip to the local art museum and participants did not read either book during the classroom experience. The parents were not familiar with these books and read each approximately one time with a slight preference for the second book. The only other time when a slight preference for the second book was evident was following week seven. The second book in week six was also not read as often as the rest. Session seven indicates a rise again in the reading of both the targeted book and second book. This was the last session of the workshop and families had a little over one week to read the books before returning their surveys which were mailed in self-addressed envelopes provided by the researcher. The book read most often was the Caldecott award-winning *Freight Train*. Of all the participants who read this book, 66% of them read the book at least three times following session two. Reading the book *Freight Train* was listed under other activities completed on subsequent surveys two other times. According to this information, it appears to be the favorite book of the intervention.

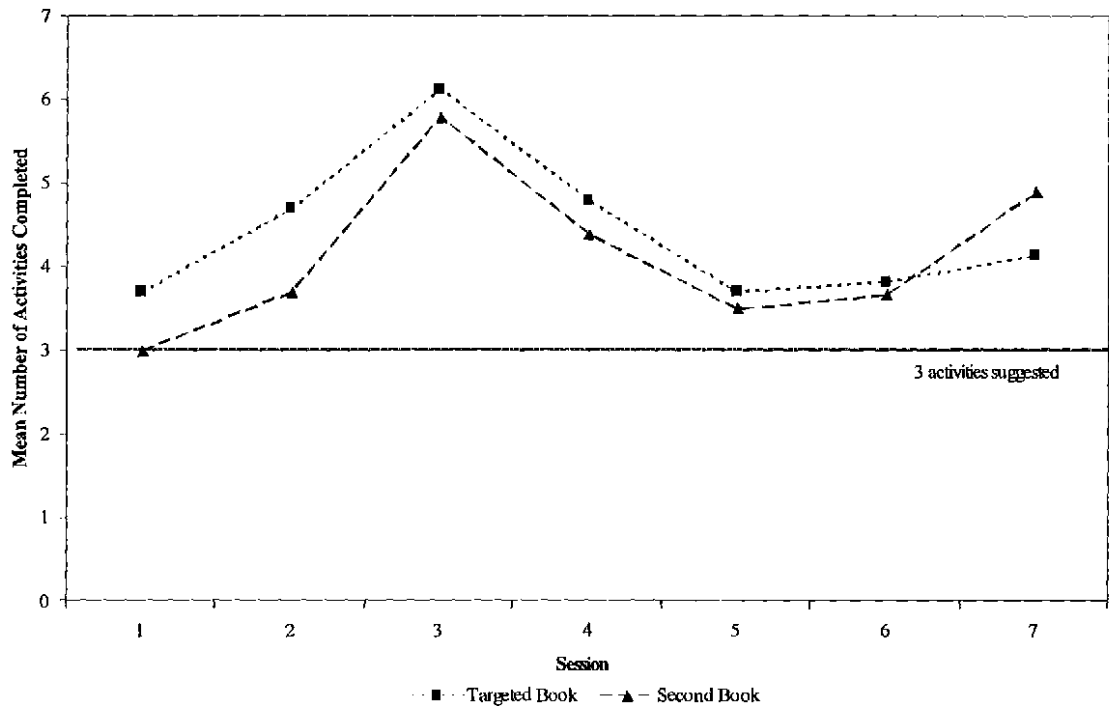


Figure 5. Reported number of times home learning activities were completed.

As reported in Figure 5, at least three home learning activities related to each book were completed following each session. This is interesting to note given the timeframe for completing activities between weekly sessions. Following sessions one and four, several activities were completed more than once. The most activities were completed following session three, and one favorite activity for that week included a disposable camera with which to take pictures in the home in conjunction with a personalized counting book to extend the target book *Ten, Nine, Eight*. The goal of the activity was for the families to create a counting book with photographs of familiar items in their home. Children also seemed to enjoy the second book, *My Five Senses*, and the corresponding activities were completed at approximately the same rate as the targeted

book activities. *My Five Senses* was listed under other activities completed on subsequent surveys two other times.

Following session seven there appeared to be another rise in completion rate of learning activities that may be due to a little more than a week lapsing before mailing in the survey. The activities for session seven were designed as a review of skills and included a personalized family game to create and focused on individualized skills for each child participant. The inclusion of modeling clay and a discovery bag focused on aesthetic development and filled with a magnifying glass, rocks, shells, seeds, soil, clay pot and paint may account for the rise in participation.

Parent responses to questions on the *At-Home Survey* also support an impact on positive parent-child interactions connected to the activities and books provided in the study. Over 80% of parent participants made a statement on the *At-Home Survey* regarding increasing positive interactions with their child. For example, one parent said, "It teaches you how to interact with your child while reading and helps my child understand and relate to stories." Another parent said, "We were able to sit down as a family and work together." Of those parents, four made more than one statement focused on positive interactions such as "It brings my son and I closer," "Gives me more quality time with her" and "We made a date of the week activity."

The post-intervention interview included two additional qualitative questions focused on the impact of the intervention. The responses to these questions suggest that the families will continue to stay involved in their child's learning and that the participants were interested in access to more information that will help them in this process.

In response to the first question, “what will you do differently to support your child’s learning following this family workshop experience?,” all but one parent responded an increased focus on parent-child interactions that revolve around learning. One parent said, “Get more involved with reading skills, spend more time with her, taking her more places like museums.” Another parent said, “Spend more time with her, read more books, be more involved.” Still another said, “Will visit library more, will get more books and read more, be more creative with her.” Parents seemed to be committed to implementing what they had learned in the workshops. The adult participants responded in ways that reveal an increased sense of responsibility for involvement and an increased sense of efficacy in providing what their children need in terms of supporting their learning

The second statement asked, “what kinds of activities would you be interested in participating in as follow-up to the workshops (examples: regular meetings with other participants, newsletters with suggestions for parent-child activities)?” This question yielded a one hundred percent response that parents were interested in seeking additional information and support. One parent said, “I like the program and my son really liked it too, especially the red bag. I would like to do this again.” Another parent said, “Would like newsletters as an update, interested in more workshops.” Five of eleven parents reported that they were specifically interested in newsletters with suggestions for parent-child activities.

Other questions on the parent interview asked about the number of hours per week the child spent watching television. In the pre-intervention interview, 8 of 9 participants reported that their child watched two hours or more of television a week. Of those 8

participants, 3 were watching half the amount of television at the time of the post-intervention interview. One can speculate that more time was available for parent-child interactions because fewer hours were spent watching television.

The evidence presented here supports that these 11 adult participants experienced an increase in positive parent-child interactions as a result of the learning activities and books provided in this study. The evidence further suggests that for this small sample, participants experienced an increased sense of responsibility for their children's learning and were interested in continued access to the type of information provided during the workshops to help them support their children's learning.

Visual Arts Intervention Impacts Children's Basic Concept Knowledge

This was addressed primarily with one tool, the SRC. The test was administered to all 11 child participants before and following the intervention. This test was chosen because it was specifically designed to assess concept knowledge of young children on concepts that typically define school readiness. Children can respond to most test items by pointing rather than verbalizing responses. The SRC assesses concept knowledge focused on colors, letters, numbers/quantity, sizes, comparisons and shapes.

As reported in Table 7, gains were made in average raw scores in all concept areas. Higher gains in raw scores were made in the concept domains that were stressed during the workshop. The highest gains were made in numbers and shapes, the two areas most highly emphasized for the children during classroom activities and within home learning activities. At the time of the pretest, the participants' mean score represents an understanding of 49% of the total shape questions on the SRC. Following the intervention the mean raw score in the shape domain represents an understanding of

61.4% of the total shape questions. This represents a 10% overall increase in measured shape concept knowledge. At the time of the pretest, the participants' mean score represents an understanding of 47% of the total number questions on the SRC. Following the intervention the mean score in the same domain represents an understanding of 69% of the total number questions tested. This is a 22% increase in the average of measured number concept knowledge at the end of the intervention. The SRC raw score at the time of the pretest reflects an understanding of 56% of the readiness concepts measured using this instrument. Following the intervention the SRC raw score reflects an understanding of 65% of the readiness concepts measured. This represents a 9% overall increase in measured basic concept knowledge.

The evidence presented here suggests that the 11 participants experienced an increase in basic concept knowledge while participating in this intervention. The greatest gains were also made the areas most highly emphasized in the intervention, suggesting that the specific classroom and targeted home learning experiences were linked to those gains. One child who scored a 24/88 on the SRC at the time of the pretest which ranked her score at the 2nd percentile, considered delayed for her age bracket, scored a 40/88 on the SRC at the posttest, which ranked her score at the 16th percentile which is considered average for her age bracket. Another child who scored a 38/88 on the SRC at the time of the pretest, which ranked his score at the 16th percentile, scored a 55/88 on the SRC at the time of the posttest, which ranked his scores at the 37th percentile. All children made raw score gains except one child who scored 15/88 on the SRC both at pretest and posttest. This child's scores remain ranked at the first percentile and is considered to be very

delayed in terms of acquiring basic concepts. The small number of participants prevented an analysis of the data using inferential statistics.

Increase in Families' Level of Involvement Associated with Increased Basic Concept Knowledge

Figures 4 and 5 demonstrate that adult participants were generally reading all books and completing take-home activities at least once between sessions. The comments made on the *At-Home Survey* suggest that more time was spent engaged in learning activities with the guidance and materials that were provided in the intervention. Parents made statements that support an increased understanding of ways to engage their children in learning activities. They also referred to positive interactions with their children while engaged in the learning activities that were provided to complete in the home.

The session seven activity bag represents the last set of home learning activities, which consisted of a cumulative review of all of the basic concepts emphasized in the child classroom component and home activity component of the intervention. To test the relationship between the completion of learning activities throughout the intervention and gains in basic concepts, the session seven survey total was correlated with each of the basic concepts measured on the SRC. The number of times which these two books were read and the number of times these cumulative activities were completed following session seven comprise the session seven total score. In addressing the question as to whether family involvement in the workshop was associated with student basic concept gains, the data reported in Table 8 provides evidence that a relationship may exist. As reported in Table 8, the raw score gains are correlated with reported completion of home

learning activities following session seven, although not at a $p < .05$ level of statistical significance. Due to a small n , a larger correlation coefficient is needed for significance at the $p < .05$. These correlations do suggest that given a larger sample to test the strength of this relationship, increased time in focused activities to build basic concepts within the home learning environment appears to be a promising strategy to increase children's basic concept knowledge.

Table 8

Correlations of Survey 7 Total and Basic Concept Gains

Basic Concepts	Shapes Gain	Sizes Gain	Numbers/ Counting Gain	Compare Gain	Colors Gain	Letters Gain	Raw Score Gain
Survey 7 Total	.33	.32	.44	.15	.60	.66	.65
P-value	$p = .47$	$p = .48$	$p = .32$	$p = .75$	$p = .15$	$p = .11$	$p = .11$

As evident in Figure 6, most of the gains in raw scores on the SRC were associated with the total completion of activities reported on Survey 7. The trend line visually represents the relationship between child's SRC gain and their parents' responses.

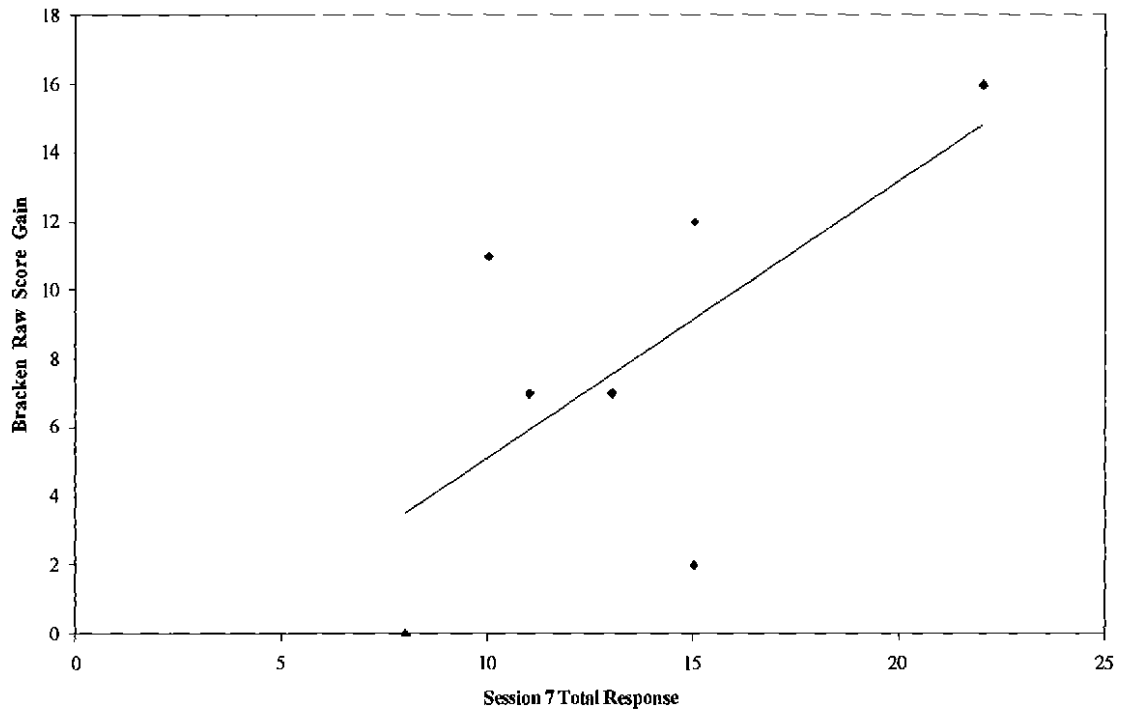


Figure 6. Scatter plot of raw score gains and survey 7 total.

Whether or not attendance was correlated with basic concept gains was another area of interest to test the association between parent involvement in the workshop and student gains. To test the relationship between attendance at the workshops and basic concept gains, a correlation coefficient was calculated between raw score gains and attendance and for each basic concept score gain and attendance at the workshops. Attendance provided access to the home learning materials to complete following each session. Attendance of adult participants was moderately correlated with raw score gains $r = .47$, $p < .14$. This suggests that child participants whose primary caregivers attended more sessions and had access to home learning materials made greater gains than those who

did not. Figure 7 presents a scatter plot that demonstrates the relationship between children's gain in SRC raw score and their parents' attendance.

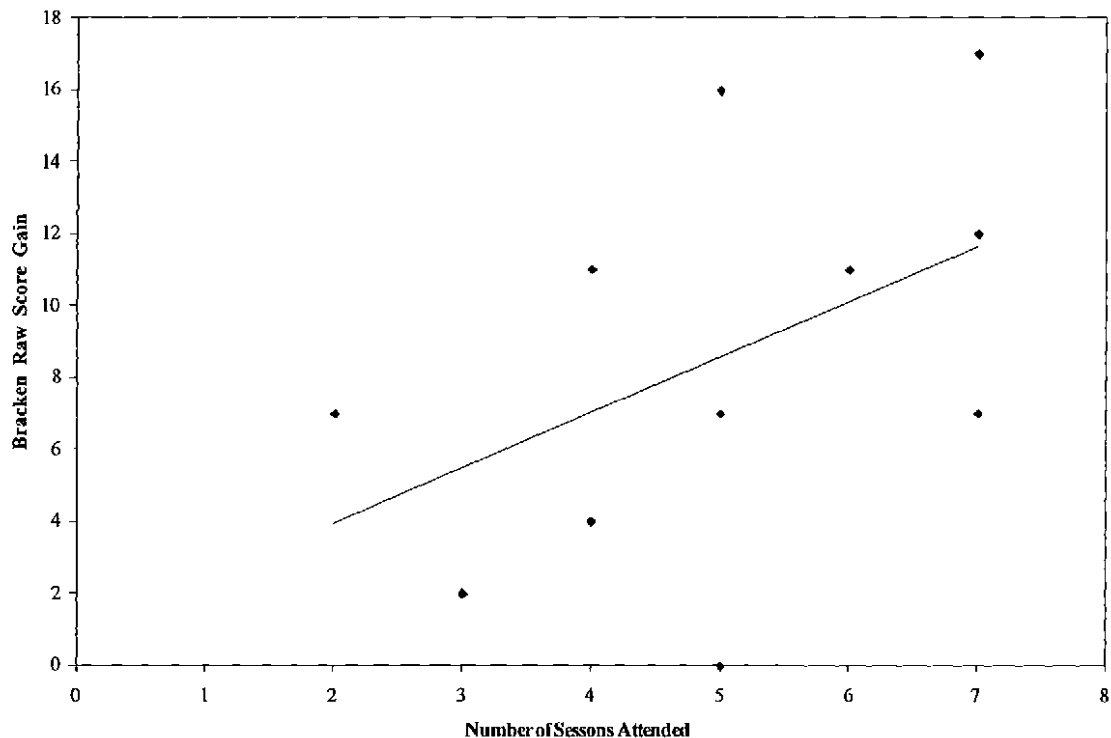


Figure 7. Scatter plot of raw score gains and attendance

Although most of the gains on each particular basic concept measured did not correlate individually with attendance, the correlation between attendance and shape gain is high and statistically significant ($r = .58$ $p < .05$). Figure 8 presents a scatter plot demonstrating this association. Adult participants received two- and three-dimensional shapes and corresponding activities to share with their children in the home learning environment. The session four take-home learning activities bag was also focused solely on shape concepts.

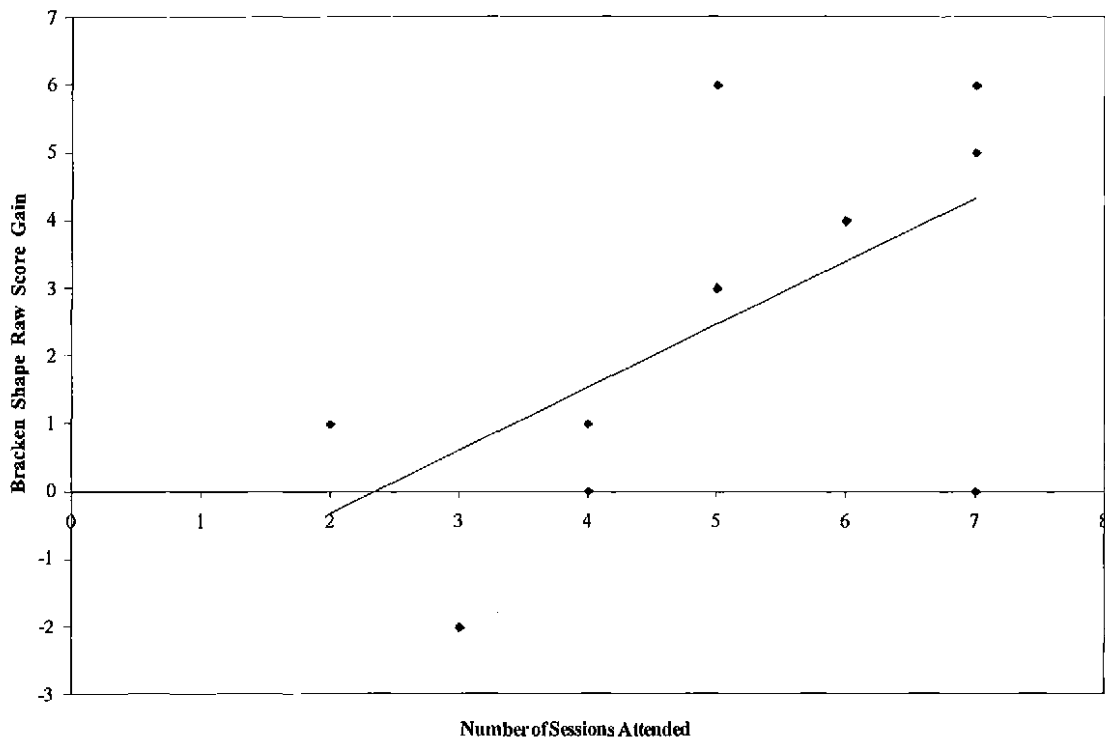


Figure 8. Scatter plot of shape raw score gains and attendance

Overall Impressions from Data Collected

Looking at a contrast of two participants helps to underscore the overall impact of the intervention. The *Story of M and E: Enhancing Parental Efficacy and Increasing Positive Parent-Child Interaction in Home Learning Environment* (Appendix D) demonstrates the growth of two adult participants over the course of the workshop. Each of the two participants returned four surveys with comments focused on the parent-child relationship. M stated, “Helps her calms down and listen! Gives me more quality time with her.” E stated, “It brings son and I closer,” and “Helps my child and I interact.” They both expressed an increased sense of responsibility to be involved in their child’s learning. Each participant made at least one statement that supported an increased sense

of parental efficacy in meeting the child's academic needs. M stated, "She has fun with me and I have a good idea how she's grown in her abilities." E stated, "It teaches you how to interact while reading and helps my child understand and relate to stories." Both child participants had raw score gains on the SRC of at least 11 points. One of the two parent-child teams attended six of seven sessions and the other attended five of seven sessions. The difference in children's age was approximately four months, and one child was a male and the other was a female. The child of M was observed to exhibit a less than average attention span. However, this same child became very engrossed in art activities in the classroom portion of the intervention as documented in the photo essay, Appendix E. The final comments each of these two parents made during the post-intervention interview support a commitment to stay involved and contribute to their child's education. E stated, "Now that I have a guide I will use this to help him learn." M stated, "Will visit the library more, will get more books and read more, be more creative with her." Both parent participants learned about their children, their current skill levels and about ways to support learning at home. Library visits between sessions also increased for both participants. At the art exhibit following the last session, E shared the following. She said that when she told her child that they were going to the library that evening her child responded, "Ooooh, that's my learning place!" with a huge smile.

The evidence presented here supports a relationship between an increase in parental involvement and/or parental efficacy and an increase in children's basic concept knowledge for the participants in this study. Parents communicated an increase in their understanding and willingness to support their child's learning with their weekly

comments on the survey instruments. The reported completion of targeted activities suggests that families budgeted time to spend engaged in these learning activities with their children. The raw score gains made by the child participants suggests that they learned new concepts as a result of this experience.

All parent and child participants seemed to enjoy this educational experience and looked forward to receiving new materials each week. At the end of the seventh session, several parents asked when the next workshop would start. Many did not want the workshops to come to a close. The overall comments on the *At-Home Survey* and post interview open-ended questions reflect an increase in family involvement specifically in parent-child interaction focused on learning. The SRC reflects gains for the child participants on concepts covered during the seven weeks. This small-sample study provided evidence of a relationship between family involvement focused on learning and their children's gains in basic concept knowledge that warrants further investigation with other and larger samples. The photograph essay, Appendix E, tells a story of joyful learning and positive parent-child collaboration. The visual arts are emotionally engaging and may prove to be an important strategy for helping economically disadvantaged children master basic concepts in preparation for school success.

Several conclusions can be drawn from this study to support continued investigations of the importance of engaging low-income families in ways that enhance the home learning environment to increase school success. Chapter V describes the conclusions and includes recommendations and suggestions for future research in the area of the potential of the visual arts to attract the participation of low-income families to enhance family relationships and increase the school readiness of young children.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

This study was focused on assessing the impact of a visual arts family-focused intervention to increase the family involvement of low-income families and enhance the school readiness of their four-year-old children. School readiness was defined and embraced as a national priority approximately 10 years ago by the National Education Goals Panel. This national educational goal stated that, “by the year 2000, all children in America will start school ready to learn” (National Education Goals Panel, 1997, p. 1). Currently it is nearing the end of the year 2006, and the achievement gap lingers and in many cases continues to widen. Low-income children remain at a disadvantage when it comes to school readiness. According to the report *An Uneven Start: Indicators of Inequality in School Readiness* (Coley, 2002), “to reduce the inequalities in students’ success in school, it will therefore be necessary to address these differences that exist among children before they start school” (p. 5). One important aspect of school readiness is knowledge of basic concepts. Bracken (1984, 1998) stated, “Given the use of basic concepts in classrooms, it is not surprising that basic concept acquisition is strongly related to early childhood academic achievement” (p. 2). This study was an attempt to

assess a family intervention pilot that incorporates a new strategy to build the basic concept knowledge which is an integral component of school readiness.

According to the description of school readiness provided by the National Education Goals Panel, school readiness includes ready children, ready schools and family and community engagement. Family involvement is a critical factor in this formula of school readiness, and research supports that family involvement has a positive effect on the school readiness and school success of children (Roberts, Jurgens, & Burchinal, 2005). The task of engaging low-income families in parenting workshops to increase their involvement with the academic learning of their children remains a challenge (Hoover-Dempsey & Sandler, 1997).

The present study provided an assessment of a new set of strategies focused on building parental efficacy and enhancing parent-child relationships through shared experiences in an arts-infused, family workshop. One goal of this intervention was to enhance the parent-child relationship through increasing family involvement in the home learning environment. A second primary goal was to increase the basic concept knowledge of the pre-kindergarten child participants. The visual arts were chosen deliberately after a thorough review of the literature suggested that this art form is emotionally engaging for young children and adults and that it encouraged focused attention, which drives learning (Jensen, 1998). According to the research in the arts, participating in the arts fosters the type of skills needed for academic and workplace success. For young children, some of these skills are categorized as *approaches to learning* and include curiosity, persistence, creativity and adaptability. The arts can also provide access to another symbol system with the potential to expand opportunities for

children to explore and communicate their evolving thoughts and ideas. After a careful examination of the elements of art and the principles of design, the elements of art appeared to be natural media for teaching basic concepts to young children. In addition, the visual arts may serve as a motivator to attract families to participate.

According to Hoover-Dempsey and Sandler (1997), motivation to be actively involved in a child's learning is predicated on perceived parental responsibility to be involved, parental efficacy and perceived invitations from the child and school to be involved. This intervention targeted day care centers in the designated geographical area and worked through the directors and teachers at the centers to recruit families. The invitation to attend the family workshops was extended by day care center directors and teachers who the families trusted. The directors stressed to the parents the potential value of the experience for their children.

Families living in poverty face challenges in addition to motivation including lack of transportation, child care, time and resources. To address the transportation barrier, the intervention was held in a neighborhood library serving the targeted population. A bus stop was located very near the library. The workshops were scheduled on Saturday mornings, and child care for siblings was provided. All of the materials and books necessary for the learning activities were provided free of charge to the families. A snack was available for children and parents following the last activity of each workshop. Parents were also encouraged to apply for a library card if they didn't already have one and to check out books on a regular basis.

This intervention was designed to empower parents to embrace the role as their children's first teachers. A primary goal of the intervention was to increase parents' level

of involvement in the home learning environment. According to Bandura (1986), social persuasion is one of the four sources of efficacy-building information. Social persuasion is only effective when the source is perceived to be credible. Trust grew between the intervention providers and the participants as the workshop sessions progressed. All learning activities that were sent home for parents to complete with their children were designed to be easily implemented, interactive and fun. The instructions for activities were described using simple vocabulary and as few words as possible without sacrificing clarity. Each book that was sent home was accompanied by a set of questions following the dialogic reading model encouraging the child to extend their language skills.

At the last session, parents were provided an opportunity to generate their own questions following the model that had been provided for the six previous weeks. The growth of the parents' knowledge and confidence was evident as parents generated questions to help children connect their daily experiences with the text of the story. Some parents targeted specific academic skills with their questions that they felt their children had not yet mastered. Following the seventh session, the family intervention ended with an art exhibit which took place a few days later. The conclusions that follow are grounded in the analysis of the data and reflections of what I learned from the totality of this experience.

Major Conclusions of Study

Careful examination of the data has led me to make the following seven conclusions.

Intervention Impacts Families' Level of Involvement in the Home Learning Environment

Interventions can be designed to positively impact parent-child interactions in the home to support learning. Because a strong link between family involvement and school success is supported in the research, family involvement interventions should seek to impact the home learning environment. According to Fantuzzo et al. (2004), the best predictor of positive child outcomes is family involvement in the home learning environment. A supportive and responsive home environment has been found to predict literacy outcomes for four- and five-year-old children (Roberts, Jurgens, & Burchinal, 2005). Helping parents by providing not only the instruction but the guidance and the materials needed to apply the newly acquired information is critical to the success of this type of intervention.

According to data collected weekly on *At-Home Survey* forms, the books that were sent home with this intervention were read and the learning activities were completed regularly. The open-ended statements on the surveys generated data to support enhanced parent-child interactions, the perceived quality of the learning activities and the connection to learning within the home learning environment. Parent responses to the learning activities reflected a high degree of comfort completing the activities.

Many comments were made by the adult participants regarding the enjoyment of the take-home activities and positive time spent helping their children learn. Children asked for the “red bag” and looked forward to the new books and materials that they received each week. The shared book experiences in this intervention became part of the weekly parent-child routine. Each book was tied to an art project extension for the families to complete, extending the creative opportunities and positive interaction between adults and children. One book inspired a family to visit the train station.

Weekly survey comments attested to the positive family time associated with the books and corresponding activities. Zull (2005) discussed the importance of practice to the learning process and stated that people tend to repeat the activities they enjoy most. Long-term benefits of this intervention appeared to be a realistic expectation as post-interview comments were reviewed.

The post-interview comments were revealing in terms of the perceived value of the information that was shared during the workshops. Overall, parents felt an increased sense of responsibility to help their children to be successful in school. The responses represented an expanded role construction that reflected a need to be involved and stay involved in their children's learning process. Parents also responded that they wanted continued access to information that would help them to continue to support their children's academic learning. Several of the comments recorded on the post-intervention interview included specific references to nurturing the artistic process.

Visual Arts Linked to Enhanced Parent-Child Relationships

From the classroom experience to the joint experience to the home learning activities, the visual arts helped define the learning and interactive experiences that were taking place throughout the intervention. The visual arts were a critical component of this success. The majority of parent participants referred to positive parent-child interactions associated with the arts-infused take-home activities. Four of the 10 participants included visual arts experiences in their responses as to what they would do differently to support their children's learning following the intervention.

The collaborative art portion of the intervention session presented new learning experiences for both the children and the adults. Increases in positive parent-child

interactions in the home reflected in the comments on the *At-Home Survey* were visible during the collaborative portion of the intervention. The joint art experiences, which included the field experience at the art museum, provided time each session for parents and children to work together toward a common goal. Field notes documented dialogue, including negotiations and problem solving as the parent-child team worked collaboratively.

Parents also had multiple opportunities to experience, first-hand, the emotional connection to creating something new. The adults had a rare opportunity to understand the world of the child, in which experiences capture children's full attention. Field notes and photographs taken throughout the workshop documented that the adult and child responses to the art activities were more similar than they were different. Everyone wanted to get their hands on the materials and get to work on their new creations.

The final product each week was a collaborative piece celebrating the combined efforts of parents and children. These final products were displayed at a family art exhibit following the last session. Families seemed excited about their joint exhibit, and the event was well-attended, suggesting that the artifacts were valued by the families. The photo essay in Appendix E includes photographs from the art exhibit event documenting positive interactions as families attend an event held in their honor. At the end of the exhibit, families collected their artwork to take home.

Visual Arts Linked to Enhanced Children's Learning

A primary goal of the arts-infused intervention was to build the basic concept knowledge of the child participants. Although obtained from a small sample, the posttest gains on the *Bracken Basic Concept Scale School Readiness Composite* warrant further

investigation of this arts-infused strategy. According to Goldhawk et al. (1998), “The arts motivate and engage children in learning, stimulate memory and facilitate understanding, enhance symbolic communication, promote relationships and provide an avenue for building competence” (p. v). At the end of the seven weeks the posttest results indicated that all child participants made gains on their knowledge of basic concepts. The most significant gains were made in the areas that were most emphasized in the classroom component and in the take-home activities. Five of the 11 participants gained 10 or more raw score points. Adult participants did not have the opportunity to access these test scores but made comments on the surveys regarding their awareness of children learning the targeted skills.

David Perkins (1994) referred to the value of the visual arts as a natural way to foster more sophisticated thinking. This intervention was designed to support the integration of the arts to build conceptual understanding and more sophisticated thinking. Attendance at the intervention sessions provided access to the take-home learning activities and was associated with raw score gains. The comments from the primary care givers seemed to indicate that they were comfortable implementing arts-infused learning activities in the home learning environment, which naturally extended the learning opportunities for the child participants.

Design of an Intervention Can Shape the Impact on the Home Learning Environment

The design of the intervention integrated knowledge of the arts, low-income family involvement and school readiness. All of the art-infused experiences for this intervention were planned to expand the observation skills, the perspective-taking skills and the communication skills of adult and child participants. The adult components were

specifically designed to foster enhanced parent-child relationships, enhanced parental efficacy and increased time spent with children engaged in learning activities. The child components were specifically designed to promote basic concept knowledge, more sophisticated thinking, and more developed vocabulary to increase school readiness and the probability of academic achievement. From book selection and home learning activity card design, to the field experience at the art museum and the library setting for the implementation, each component of this design was planned to maximize the impact on the home learning environment beyond the seven week intervention.

In order to facilitate and expand the connection between all of the activities and literacy development, learning activities stemmed from books that were chosen specifically for this project. Selection of picture books included books that reflected both male and female main characters and represented a variety of topics that traditionally appeal to both genders. Two books were chosen to be included in each take-home activity bag. One of those two books was always a Caldecott award-winning book, and this book was also shared with adult and child participants during the family workshop sessions. Books were selected to target specific art elements and basic concepts. The response to reading the books was better than anticipated. According to Table 8, target books were generally read more than once during the week, and the second book was read at least once during the week. Increasing reading episodes in the home supports the development of reading readiness for kindergarten. Feedback, including number of times books were read and specific comments about the books from adult participants regarding the selected books for this project, was very positive.

Activity cards were carefully designed to accompany each book. There were three activity cards that focused and extended the contents of each book. The format for the activity cards remained consistent. Each book had one card with questions to encourage a dialogue between the adults and children and to help children make personal connections with the story contents. The questions were created following the dialogic model (Whitehurst et al., 1994), which also encourages children to take more responsibility for the reading episodes each time the book is shared. Several comments on the *At-Home Survey* referred to learning how to share books effectively with children.

The other two cards included learning activities that integrated specific elements of the visual arts with specific readiness skills. Directions for activities were simply stated and efforts were made to limit the number of steps. Creative art project extensions followed each of the focused learning activities. All materials needed to complete learning activities and art project extensions were included in the “red bag.” One favorite activity provided families with a disposable camera to take photographs of items in the home to create a personalized counting book. The *At-Home Survey* comments reflected a high degree of completion of learning activities and a high degree of comfort on the parents’ part as they engaged their children in the activities within the home learning environment. Parent comments also reflected an increased level of understanding of how to support their child’s learning.

A considerable amount of effort was focused on designing learning activities targeting specific skills that were fun and interactive for the families. To empower the parents and build their sense of parental efficacy, activities were designed to help parents successfully engage their children in the learning process. One critical element seemed to

be that the activities were completed without difficulty in the home environment and that they were enjoyed by all involved. The *At-Home Survey* comments reflected the successful learning episodes facilitated by these carefully designed learning materials.

Locating the intervention in a neighborhood library that served the targeted population was another design element focused on extending the impact of the intervention beyond the seven sessions. The increased access to books and literacy related activities made the library an optimal choice. The increased familiarity with the library and opportunity to sign up for a library card, facilitated by the supportive library staff, encouraged continued library use following the conclusion of the family workshops. Yaden, Madrigal, and Tarn (2003) found that children from low-income homes lacking books and learning materials benefit from the opportunity to borrow them from a convenient library. Senechal, LeFevre, Hudson, and Lawson (1996) found that the vocabulary development of young children was related to the number of times children visited a library. The National Center for Education Statistics (2004) recently noted low-income families visit the library less often in the summer months than children from higher SES homes. Hosting the intervention in this location provided a chance for families to associate positive learning experiences with a library in their neighborhood. Home learning opportunities are enhanced when parents use the community resources available to them as suggested by the National Education Goals Panel.

The field experience visit to the art museum was another important design element to extend learning opportunities beyond the family workshops in this pilot program. From the bus ride to the interactive museum tour, families shared a bonding experience. The engaging, hands-on area in the art museum encouraged adults and children to dance,

build, paint, and create. Field notes and photographs documented parents and children enjoying exploring together. Family memories were made on this educational field trip. One parent-child team that missed the trip made sure to trade in their fun-points incentive at the end of the workshops for tickets to visit the art museum. Including engagement in this arts-focused community resource seemed to strengthen and expand the home learning connection. Capturing the extent of the impact of each design element was challenging due to the instruments that were selected and created for data collection purposes.

Limitation of Parent Instruments

The tools used in this study were somewhat limited in terms of accessing the richness of the experience. The parent questionnaire included the *Parental Self-Efficacy for Helping Children Succeed in School Scale* and the *Family Involvement Questionnaire Home-Based Subscale*. Unfortunately, one of the 11 adult participants who attended all seven sessions moved before completing the post interview, and therefore those data are missing. Although given the results of the balance of the data and data collected from a previous study focused on enhancing parental efficacy and facilitating literacy development using similar instruments, these tools are quite limited as measures of change.

I was interested in collecting data that could provide insight regarding parental role construction, specifically the sense of responsibility a parent feels regarding being involved in the child's learning process. Chrispeels and Rivero (2001) found that role construction was related to family involvement. I had hoped that the data collected could potentially affirm the value of specific information that was shared during the

intervention. I was also interested in learning whether or not parents were implementing what they have been exposed to during the parenting conversations portion of the workshops. With another instrument, the value of the take-home activities in terms of empowering adult participants and building their sense of parental efficacy could become clearer. Providing an opportunity for parents to share positive changes in the home learning environment would be very beneficial. According to Shonkoff and Phillips (2000), a responsive and supportive home learning environment is the best predictor of positive child outcomes.

The two qualitative post-interview questions that were included provided insight regarding removing barriers such as the lack of motivation and lack of resources. Parents stated that they wanted continued support. The perceived value of continued access to academic activities for these families became clearer with the overwhelming response to keep receiving information to support student learning. Many parents also wanted to continue attending workshops. These workshops were perceived as very beneficial but at this point remain quite labor-intensive, which can limit dissemination and replication.

Labor-Intensive Intervention

The arts-infused family workshop was very successful, as designed, due to the involvement of many people including the library staff hosting the intervention, the art educators, parenting educators, child care providers, and early childhood educators. With all of these people working together, the theory of action plan came to fruition. Approximately nine people were involved with implementation each week.

Designing the target child classroom activities and the take-home learning experiences was time-consuming, initially. The aspect of this process that remained labor

intensive throughout the implementation was the preparation of the take-home activity bags and transportation of all materials necessary for adult and child components of the intervention. Set-up time, clean-up time, door prizes, snacks, family fun points and tickets to family outings are weekly duties of this type of comprehensive intervention that may limit the opportunities for replication.

Participation Challenges

Recruitment remains a challenge when working with low-income families. This study, along with others, supported that providing child care and either a snack or meal can increase participation. The message of the potential value of the workshop for families needs to come from a trusted source. Due to the ongoing challenge in this area, a comprehensive plan should be put into place several months before an intervention is scheduled to begin. In this intervention, a phone call to prospective participants to verify their plans for attendance each week seemed to have a positive effect on actual attendance. A family coach was assigned to communicate with participating families on a weekly basis between sessions. This coaching role was well-received by the adult participants in this study.

Directors of day care centers played a critical role in the recruitment process of this intervention. The invitation to attend by this trusted source was well-received. Support from several teachers was evident as they encouraged families of their students to sign up for the program. In this pilot, 20 participants signed up initially to participate. Of those 20, 19 signed an informed consent allowing their child to partake in the pretest. Eventually, 11 participants attended two or more sessions. Six participants never attended the first session.

As far as the time of year and location of the implementation, a neighborhood library with a summer family workshop design seemed to be a logical choice. In this case the library staff was very supportive. A library is a natural choice due to the continuous access to print materials beyond the workshop. Families who participated in this intervention seemed to enjoy the library setting, and several families checked out additional books to take home. Other locations to consider are schools and day care centers within the targeted implementation areas. Elementary schools can be a good location, but some low-income families have had negative personal schooling experiences.

Time of day when this intervention was offered did not seem to be an issue. Because this intervention was offered during the summer months, a Saturday morning time slot was chosen. The time and day worked well for the families. Because these children were starting kindergarten in the fall, the summer implementation targeting readiness skills for kindergarten may have been more attractive to parents of pre-kindergarten age children.

An invitation to attend a family involvement workshop may be the first time parents feel that they should be involved in their children's education. This workshop was structured to empower parents to get involved and stay involved. Positive reinforcement was used in all aspects of the intervention. Incentives for attendance and returning surveys helped but did not seem to be critical at the time of recruitment.

Overall Assessment of Intervention

Parents expressed that they did not want the sessions to end. Several parents asked if they could sign up for another series. The family workshop experience was observed

to be a very positive learning situation. Research questions that formed the foundation for this study were addressed, and, within this small sample, evidence suggests that this family-focused intervention increased the level of involvement of these low-income families, increased the basic concept knowledge of their children and that a relationship exists between the two. Data to support this relationship were primarily qualitative. Reported home activity completion was higher than initially anticipated, with most target books read multiple times and a minimum of three activities being completed for each book each week. The potential of the visual arts to enhance family involvement and facilitate basic concept development is exciting at a time when researchers and educators continue to struggle to bridge the school and home learning environments to reduce the achievement gap of low-income children.

Recommendations for Early Childhood Educators and Parent Educators

The conclusions from this study have led me to make the following recommendations to early childhood educators and parent educators. The results may be useful to increase the likelihood of success for children living in poverty.

Use the Visual Arts Help to Build Communicative Competence

Early childhood educators can expand young children's ability to communicate effectively by providing daily opportunities for children to explore the various means of symbolic communication through exposure to the visual arts. Althouse, Johnson, and Mitchell (2003) recognized the potential of the visual arts to support communicative competence by helping children develop in their abilities to draw representations of real objects when children were provided with in-depth experiences supported by their

classroom teachers. Communicative competence is a foundational aspect of literacy, and young children benefit from experimenting with and internalizing the elements of art as tools for recording and sharing their developing thoughts and ideas. Children's thinking is made visible as they explore a variety of ways to communicate their learning. The visual arts are a natural and comfortable venue for young children to communicate. Through the public display of children's thoughts and ideas, teachers can recognize and celebrate the significance of children's artwork to the learning process.

As children grow in their ability to record their current understandings and to explore their questions and ideas, they are better able to construct knowledge and associate information. Because the arts are emotionally engaging, which drives learning, this learning strategy has the potential to support and extend learning. Empirical evidence supporting the connection of personalized drawings to depth of understanding for science concepts suggests that there is considerable value in this form of symbolic communication (Edens & Potter, 2001; Gobert & Clement, 1999; Nelson, Martin, & Baldwin, 1998).

This unique form of self expression can also help to establish a sense of congruence between home and school. Alland (1983) noted that culture plays a very important role in young children's artwork. Perspective-taking skills can be expanded as children experience the multiple views expressed when self-expression is valued. Caldecott award-winning books, with their diversity in terms of art techniques, provide a connection to address fine art and to engage children in an intentional study of the elements of art. As children explore, describe and create artwork associated with literature, they expand their understanding of others and increase their ability to

communicate more effectively. As Ohler (2000, p. 17) stated, “There is no better way to understand and experience the diversity and commonality of humanity than through art.”

Young children can also benefit from this intentional exposure to the elements of art with teacher guidance to build readiness skills such as letter and number recognition. Emergent writing, for example, begins with a strong connection to the visual arts, as children universally draw pictures to represent words and ideas. A more sophisticated understanding of space through direct experience can facilitate the writing process as children begin to orient letters on a page to communicate their thoughts.

Communicative competence is a critical skill for success in the workplace. In an image-driven, global society, the ability to communicate using visual images is becoming increasingly important. Early experiences in the visual arts facilitate the exploration of symbolic communication for young children at a time when their vocabularies are limited. As young children develop skills in documenting and sharing their learning, they are better able to make abstract connections and develop conceptual understanding.

Make Generous Use of Home Learning Activities

Sharing carefully designed learning activities for families to complete in the home is highly recommended. Sending activities home can extend the learning that is taking place in the classroom when families complete the activities. Activities designed for home completion should come with all materials necessary to complete the activities combined with easy-to-implement instructions. Participants in this study made positive comments focused on this issue. Given the findings of this study, it is recommended that one book be sent home each week. The number of activities assigned to each book should not exceed the number used in this pilot. Including a story question card

following the dialogic reading model is highly encouraged to model the type of book dialogue that can extend and enrich learning.

Format for the activity cards and the presentation of activities should remain consistent. This minimizes confusion and allows the adult participant to focus on the new activity rather than become distracted with an unfamiliar format. Combining or extending activities with the visual arts helps families respond in ways that are culturally congruent. The visual arts embrace choice and individual self-expression, which help to build self-confidence and persistence. Art materials can be provided for families as part of a home-learning collaboration. Family members can be encouraged to bring in artwork completed at home to be displayed in the classroom. A family art show held on an evening after school or on the weekend may provide additional opportunities to celebrate individual family perspectives and cultures. Activities linking home and school serve to strengthen the partnership between teachers and families that support student learning.

Collecting feedback on the home activities is also highly recommended. Teachers can make adjustments to learning activities based on this feedback. Encouraging families to share ideas on variations of the activities may also help to build parental efficacy and encourage continued involvement.

Develop a Recruitment Plan to Attract Families to Participate in a Family Involvement Intervention

Recruiting families to be involved in a family intervention is a first step to enhancing the home learning environment of low-income families. The home learning environment and “curriculum of the home” provide opportunities for children to prepare

for kindergarten and to support learning throughout a child's academic career. It is important to explore the most accessible locations to the targeted population. Input from low-income families may help determine how best to access this population. Reflecting on the percentage of families that agreed to participate in this study but did not follow through, it is highly recommended to recruit more families than needed to prevent a low-enrollment situation for the intervention.

Day care center directors and classroom teachers can be key participants in recruitment efforts, because families trust these individuals to have their children's best interests at heart. Setting up recruitment tables at the centers provide opportunities for parents to review some of the materials associated with the intervention. Distributing something tangible can serve to build anticipation for the family workshop and possibly increase attendance.

The use of incentives is recommended. Incentives awarded to families for feedback seemed to increase the survey return rate in this study. To counter a misinterpretation of the focus of the workshops, door prizes can take the form of gift certificates to family restaurants or the grocery store. Family-focused "prizes" can enhance family relationships by providing opportunities for shared experiences that encourage dialogue. Incentives for attendance and arriving on time serve as motivators initially, but the workshop goals must be perceived as beneficial for the participants to remain involved.

An effort should be made to explore different ways of attracting families. If not the arts, then what else may attract families to participate? The arts appeal to all ages and the results of this study provide a window into the positive effects a visual arts-related

experience can have on parent-child relationships. If it is indeed the arts, which genre of the arts will attract more low-income families? Which genre of the arts provides the most promising strategies to increase the school readiness of four-year-old children and enhance the parent-child relationship in the process?

Help Families Access and Implement Responsive and Supportive Behaviors to Increase School Success

Teachers and parent educators can strengthen the home school connection by inviting parents to get involved and stay involved in their child's learning. As trust is established and family input is welcomed, teachers and parent educators can encourage families to do the following:

- Attend family workshops to increase access to information to support child's learning
- Request activities and materials from the child's classroom teacher to complete at home
- Spend more time sharing books and engaging in dialogue with children
- Establish routines such as reading books that will support school success
- Spend time exploring the arts—creating and appreciating this form of expression
- Go on family outings to visit museums, libraries and community events
- Communicate high expectations for children and provide structure to help children attain goals
- Be responsive and supportive to facilitate a healthy parent-child relationship and to build child's sense of efficacy to succeed in school.

Including the home context is critical for low-income families, because of the significant contribution of the transactions that take place in the home learning environment to preparing young children for school success. Accessing parental role construction is a first step to enhancing parental involvement. If parents do not perceive themselves as part of the teaching-learning process, then the home context remains limited in terms of supporting and enhancing children's learning. More in-depth exploration of the parents' perceived role and sense of efficacy in terms of supporting academic learning of their children is needed in order to better understand and more effectively enhance family involvement within the home learning environment.

Recommendations and Suggestions for Future Research for Researchers

Although the literature review supports the positive impact of arts-integrated learning, as well as the benefits of high arts exposure, empirical evidence linking visual arts and specific academic learning remains lacking. More empirical research is needed to examine benefits of specific arts-integrated experiences in defined academic areas. The close observation and documentation of arts learning in home and school contexts, as it relates to the development of expressive competence and impact on conceptual understanding, may help to support the value of arts-integrated learning at school and in the home learning environment.

Ways to Enhance Low-income Family Involvement

The recommendation that follows is based on the need to learn more about how low-income families perceive their role as their children's first teacher. The current study underscores the value of qualitative data to inform this type of inquiry. Of all the data

that was collected from parent participants, the qualitative data were the most revealing in terms of accessing parents' perceptions of their role in the academic learning process of their children.

How do parents perceive the home learning environment? How do parents support and extend their children's learning? How successful do parents feel in supporting their children's learning? Combining focused observations and in-depth interviewing may help researchers develop increased understanding of the issues that may interfere with the home learning context. Home visitations may be a critical link to developing a realistic picture of how to enhance each home learning environment to support academic learning.

Developing a needs assessment for the families that choose to participate in an intervention may be good starting place. Recognizing what families have in place and building on those strengths can better support the enhancement of parental efficacy. When parent needs and workshop goals match, the opportunities for long-term benefits of participating in a family workshop are expanded. The arts-infused family workshop piloted in this study seemed to engender high levels of success within the home learning environment of these participants.

Explore the Connections of the Visual Arts, Expressive Competence and Conceptual Understanding

Current research supports that as children become more familiar with artistic media they are capable of more replete images. As children become more familiar with artistic symbols and artistic elements it seems natural that they would increase their ability to incorporate these as they communicate their thoughts and ideas using visual

imagery. A recommendation focused on a more in-depth exploration of the link between visual art elements and conceptual understanding for preschool children is based on the results of this study.

School readiness, or the lack thereof, predicts child performance in kindergarten. There are basic concepts that children are expected to know before they start. This family intervention targeted at low-income families with pre-kindergarten children helped to reduce the achievement gap by addressing these concepts. This intervention focused on the basic concepts of letters, colors, numbers and quantity, shapes, sizes and comparisons. These basic concepts span the subject areas of math, science and literacy. Basic concept knowledge impacts higher levels of understanding, as a weak foundation limits the connections and understanding that the brain will be capable of during that kindergarten year.

The concrete evidence of pre-kindergarten children learning basic concepts during the summer months in this study is promising because kindergarten readiness includes knowledge of these basic concepts. Four-year-old children need to develop an understanding of these basic concepts before they begin a kindergarten program. An empirical study focused on basic concept development using a variety of arts-infused methods would help to determine the most effective strategies for children from low-income families.

Empirical evidence does support a link between personalized drawings focused on scientific concepts and enhanced conceptual understanding (Edens & Potter, 2001; Gobert & Clement, 1999; Nelson, Martin, & Baldwin, 1998). More research focused on the connection between drawing and learning is needed. The dual encoding of written

and visual images in the brain seems to strengthen and possibly increase the depth of understanding. It is important to research methods of teaching drawing skills if this learning strategy is recognized as a valuable learning tool. It will also be important to explore the transferability of these skills to different content areas.

Explore Neurocognitive Processes and Transferability of Learning in the Visual Arts

The last recommendation proposes a future-oriented research agenda linking neurocognitive processes and the trajectory of the habits of mind, skills and dispositions nurtured through extensive experiences in the visual arts. Children who enter kindergarten with higher levels of enthusiasm and persistence perform better academically in first grade as reported in *America's Kindergarteners: Findings from the Early Childhood Longitudinal Study* (West, Denton, & Hauskin, 2000). Children who self-regulate and demonstrate sustained attention also perform better academically. The visual arts encourage both, as children make personal choices while participating in a highly engaging activity.

Cognitive control as defined by Noble, Tottenham, and Casey (2005) is one of three core neurocognitive systems associated with school learning. It is the “ability to allocate attention, to hold something ‘online’ in memory, and to withhold an inappropriate response” (p. 72). Cognitive control has also been found to be “the single best predictor of resilience among high-risk children” (p. 81). According to David Perkins (1994), one of the founding members of Harvard Project Zero, the arts foster this type of focused attention. For economically disadvantaged children developing cognitive control can help to increase their likelihood of school success because of the strong link to resiliency. More empirical research focused on the changing structures of the brain

associated with learning and increased resiliency for students who are at risk of school failure is needed.

In order to be competitive in a global economy there are targeted skills that need to be developed which have been defined by the *Partnership for 21st Century Skills* (2003). These skills include the habits of mind and dispositions encouraged through focused experiences in the visual arts. What types of jobs do students strive for when they have developed high levels of flexible, adaptive and creative thinking combined with analytical and practical problem-solving skills? The arts provide opportunities for people to contribute items valued in a community and help to build self-confidence and persistence. More empirical research is needed focused on high arts exposure in school and the development of the skills required for workplace success.

Assessment of the 21st century skills is limited at this time. The trajectory regarding future learning remains relatively unexplored. Bransford et al. (2000) discussed the importance of early experiences in a child's life and the impact on brain development and capacity for learning. Researchers are encouraged to invest considerable time and energy in investigating the potential role of the visual arts in shaping future learning for children living in poverty and employment options when they reach adulthood (Bransford et al., 2000; Catterall, 2002).

Study Conclusion

The design and delivery of the visual arts family-focused intervention was a massive undertaking, but well worth all of the effort tangible at the culminating art exhibit event celebrating the artwork of the participants. After six months of research,

the design for the implementation began to take shape. An established parenting program developed by the Family Involvement Team at the Florida Institute of Education (FIE) helped define the important, parenting conversations component of the intervention. The collaborative art portion began to take shape under the direction of the art education director of the Cummer Museum of Art and Gardens. The art-infused focused learning experiences reflected in the child classroom component and home learning activities were designed by me. Successful delivery of this intervention was made possible by the dedication of parenting educators, art educators, library staff, child care providers, and with the guidance and feedback provided by the Family Involvement Team at FIE.

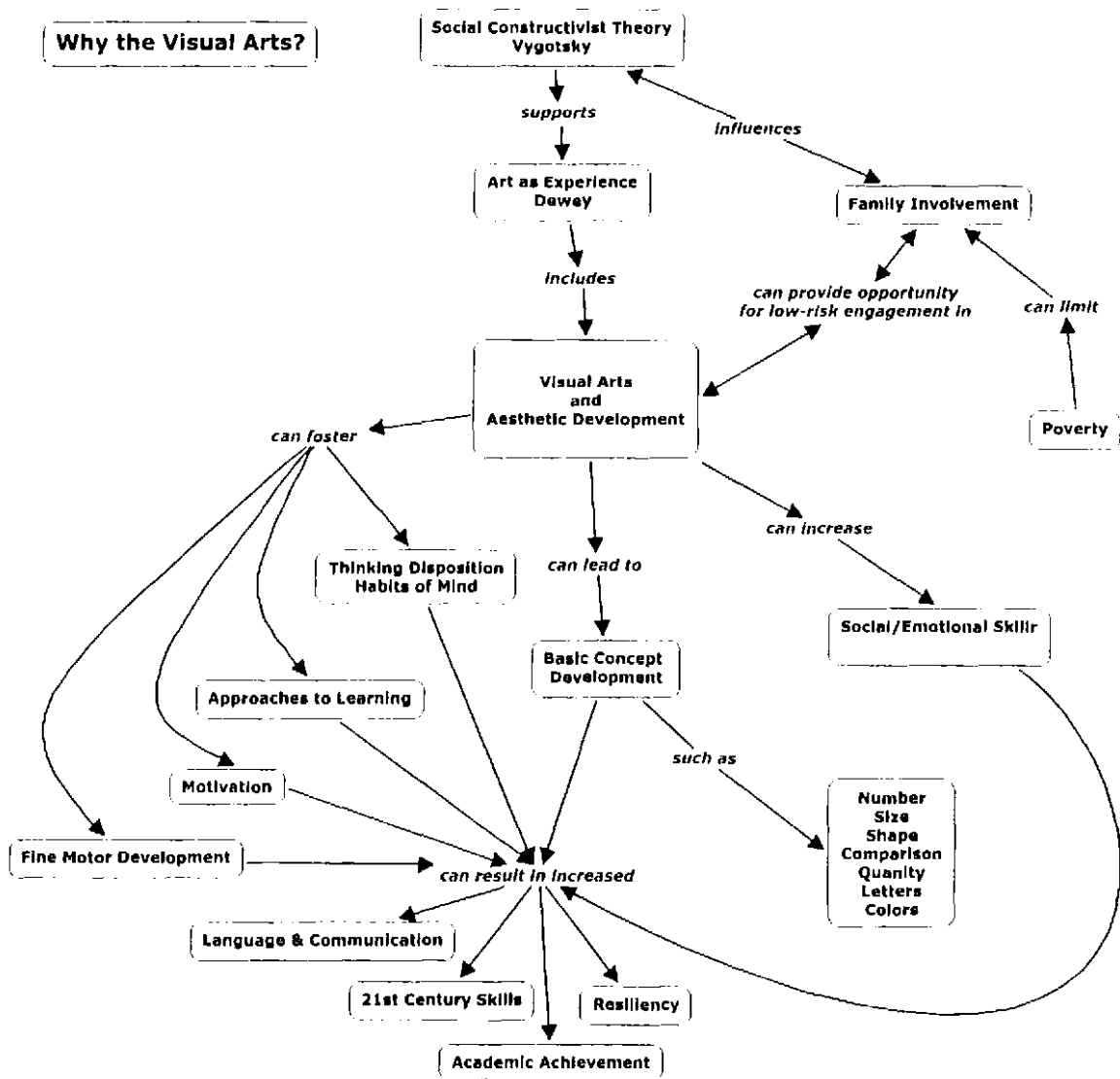
The data collected provided evidence that this intervention had an impact on the home learning environment, and a measured amount of time was spent on a weekly basis completing learning activities. Parents grew in their awareness and self-confidence in terms of leading learning episodes. The adult participants described these positive exchanges with their children on the surveys linked to the materials that were sent home. At the end of the seven weeks, they requested continued access to similar activities to continue supporting the learning process. This intervention permeated many barriers that are commonly associated with interventions targeting low-income families.

Efforts such as these are successful one family at a time. This study included 11 families. Eleven target children and their siblings have more books, more learning materials, more art materials and parents who feel better equipped to support their learning. At the end of the art exhibit, when families gathered their artwork, one mother who attended every session came over to me with the clay mouse sculpture she had made. This participant had been very proud of this piece and had shown it to everyone the day

she created it. She carefully placed it in my hands as she thanked me for the time we had shared. It was very touching to receive a gift that represented as much as that gift did that day. Educators are charged with gift giving in the form of researching the most effective strategies and implementing them to reach out to families to improve the outcomes for all children.

APPENDIX A

WHY THE VISUAL ARTS? CONCEPT MAP



APPENDIX B

INFORMED CONSENT



ELOA/BEST Family Involvement Jacksonville Early Literacy Partnership

Parent/Guardian Informed Consent for Child and Parent Participation

Child's Name _____ Child's Birthday _____

Dear Parent/Guardian:

This summer and during the 2006-2007 academic year, families at Carter G. Woodson and St. Clair Evans Elementary Schools and the surrounding childcare centers will be invited to participate in a family involvement study, ELOA/BEST Family Involvement Program. This program is designed to identify promising family involvement strategies intended to connect home and school environments to help children develop and improve their early literacy knowledge and school readiness. A secondary purpose will be to determine (1) if targeted arts and literacy activities impact families' level of involvement in their children's learning and development; self-efficacy, encouragement and reinforcement; and use of the local library; (2) if targeted arts and literacy activities impact children's basic concept knowledge; and (3) if increased family involvement and/or parental efficacy are associated with an increase in children's basic concept knowledge.

Families, participating in the study, will be asked to (a) attend weekly (or bi-weekly) workshops, (b) conduct family arts and literacy activities at-home, and (c) engage in family-friendly arts and literacy activities in the community. Using a coaching model, the workshops will include family discussions addressing various parenting topics, literacy- and arts-focused activities, and food. Families will leave each workshop with books, materials and activities to do with their children at-home and in the community. Families and their children may be videotaped and/or photographed for use during the workshops.

Parents will also be asked to participate in two parent interviews, one before the workshop begins and a second one after the last workshop. Each interview will take about 15 minutes and will be arranged at a time convenient to you. The kinds of questions we will ask include background information about you and your child, your household routines, activities you do with your child, and your feelings. These questions will help us understand the role you play in your child's development. You do not have to respond to any question you do not wish to answer. In appreciation for your time, we will give you \$40 after both interviews are completed.

We will also evaluate some children's language and learning skills such as colors, numbers, counting, size, shapes, letters, vocabulary, and emerging literacy skills. These tests, which take about 20 minutes, will be given before the workshop begins and after the workshop ends by trained assessors or the child's teacher. Your child does not have to respond to any question he/she does not want to answer. The results will be used to assess the impact of the ELOA/BEST Family Involvement Program and will not become a part of your child's school records. There is no risk to your child's participation.

Florida Institute of Education at the University of North Florida: ELOA/BEST Family Involvement Program 2006

All facts from the parent interview and the child assessments will be kept confidential. Children and families will not be identified by name. Your participation and your child's participation in this study are voluntary. You may stop participating at any time without penalty.

After you and your child participate in the study, we may ask your child's school to provide the following information: academic grades, referral for exceptional education services, statewide or local standardized assessment results, and/or retention information.

If you have any questions about the study, please call Ms. Bridget McGee, (FIE Family Involvement Specialist) or Dr. Madelaine Cosgrove, (FIE Associate Director for School Readiness) at (904) 620-2496. You may get more information about UNF policies, the conduct of this study, and your rights as a participant from Dr. Kathleen Bloom, chair of the UNF Institutional Review Board (IRB) at (904) 620-2455.

STATEMENT OF INFORMED CONSENT

I have read (or someone has read to me) the information about and have had an opportunity to ask and have answered my questions.

By signing this form, I willingly agree for me (family workshops and interview) and my child (child fun club and assessments) to take part in the ELAA/BEST Family Involvement Program study.

Child's Name _____ Birthday _____

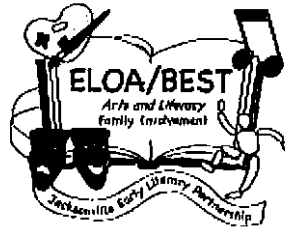
Name of Parent/Legal Guardian _____

Signature of Parent/Legal Guardian _____

School/Childcare Center Name _____

APPENDIX C

AT HOME SURVEY



**Linking Literacy with Visual Arts
At-Home Survey: Session 7**

Child's Name: _____	Family Member's Name: _____
Directions: Please complete the below questions after reading the book and completing the activity.	
Book Title: <i>Seven Blind Mice</i>	
Circle the number of times you read this book with your child:	0 1 2 3 4 More than 4
Circle the number of times you completed each activity with your child:	
Activity 1 <i>Story Questions</i>	0 1 2 3 4 More than 4
Activity 2 <i>Clay Creation</i>	0 1 2 3 4 More than 4
Activity 3 <i>Natural Beauty</i>	0 1 2 3 4 More than 4
Book Title: <i>I Read Signs</i>	
Circle the number of times you read this book with your child:	0 1 2 3 4 More than 4
Circle the number of times you completed each activity with your child:	
Activity 1 <i>Story Questions</i>	0 1 2 3 4 More than 4
Activity 2 <i>Family Game</i>	0 1 2 3 4 More than 4
Activity 3 <i>Environmental Prints</i>	0 1 2 3 4 More than 4
One thing I like about the take-home <i>visual arts</i> activities:	

The hardest part of the activity to complete was:	

List any other activity you and your child completed using books in a previous take-home packet.	

Circle how many times you visited the library between sessions:	0 1 2 3 4 More than 4
Circle how many books you checked out for yourself:	0 1 2 3 4 More than 4
Circle how many books you checked out for your child:	0 1 2 3 4 More than 4

APPENDIX D

THE STORY OF M AND E: ENHANCING PARENTAL EFFICACY AND INCREASING POSITIVE PARENT-CHILD INTERACTION IN HOME LEARNING ENVIRONMENT

Story of E and M: Increasing Positive Parent-Child Interaction in the Home Learning Environment

Engaging Activities Participant ID	At Home Survey Session	Post Interview Responses Participant ID	Atd	Bracken Scores: Pre & Posttest Raw Score
E- It teaches you how to interact while reading and helps my child understand and relate to stories	1	E-1 Now that I have a guide I will use this to help him learn 2- I like the program and he really liked it too, especially the red bag, do again.	6/7	E Prefest 68/88 E Posttest 79/88 Gain = 11
E- It gives my son something to look forward to on our one on ones	2			
E- It brings son and I closer	3			
E- Helps my child and I interact	5			
M- Helps her calms down and listen! Gives me more quality time with her	1	M-1 Will visit library more, will get books & read more, be more creative with her 2- Would like to see kids again so she can have more interaction with kids	5/7	M Prefest 24/88 M Posttest 40/88 Gain = 16
M- It gives me time with her and see how much she's learned and need to learn	3			
M- She has fun with me and I have a good idea how she's grown in her abilities	5			
M- It gives me quality time with her plus lets me see how far she's come in learning	7			

APPENDIX E

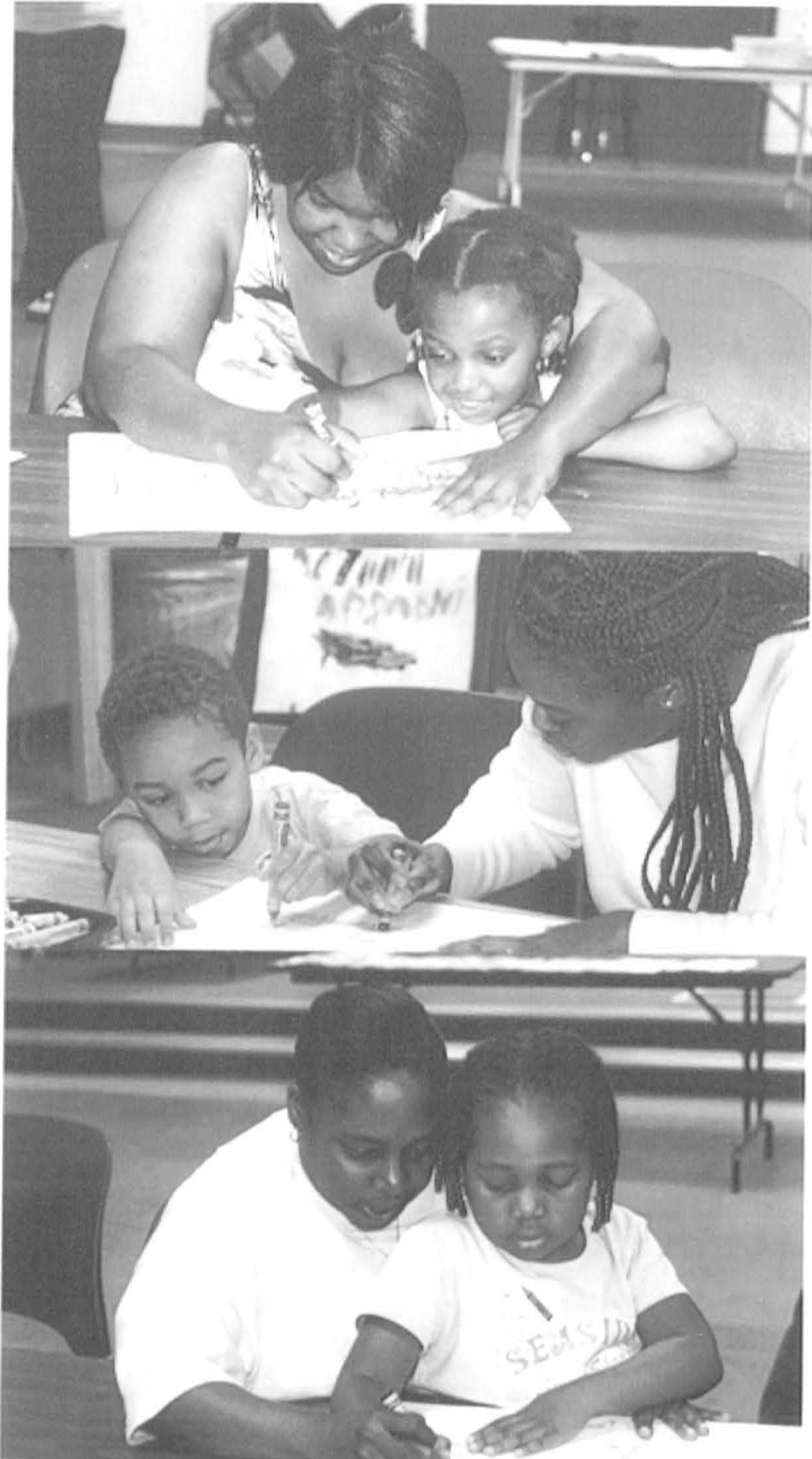
PHOTO ESSAY- Child classroom component







PHOTO ESSAY: Parent-Child Joint Art Experience



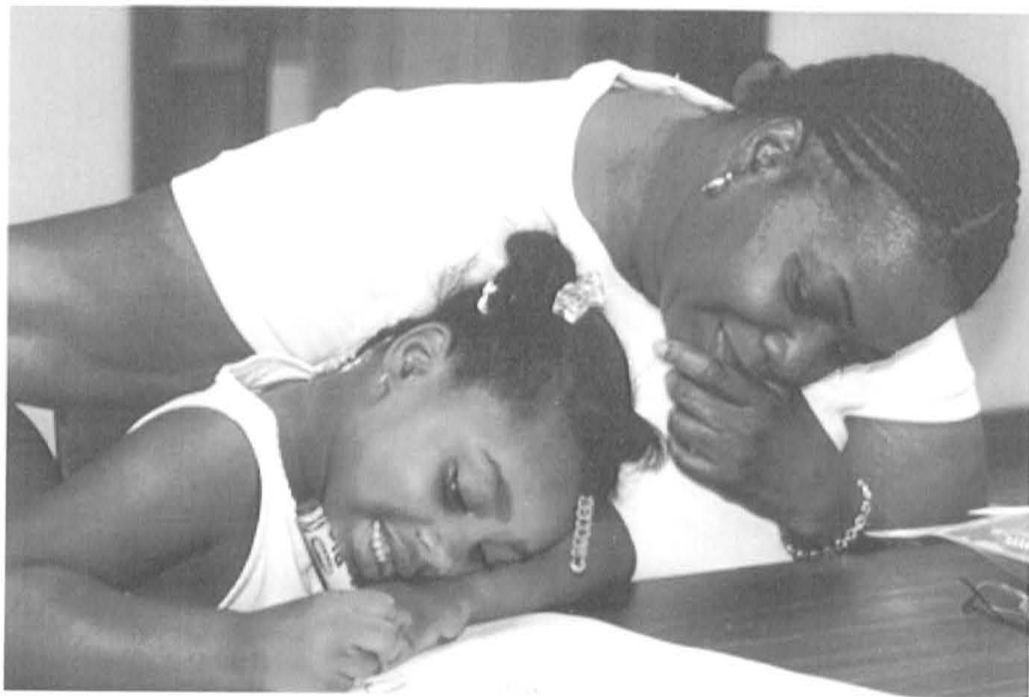


PHOTO ESSAY: Family Art Exhibit- “Ooooooh, that’s my learning place!”





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Curriculum Vitae
Gigi Morales David

Education

- Ed.D., Educational Leadership, University of North Florida, Jacksonville, Florida
Doctoral dissertation: *Assessing the impact of a visual arts family focused pre-kindergarten intervention*, directed by Dr. Kathe Kasten (2006)
Received *Mulkeen Award for Practice-Centered Inquiry*
- Ed.S., Early Childhood Education, University of Florida (1996)
Graduated *Summa cum laude* (GPA: 4.0), Phi Kappa Phi
- M.Ed., Educational Leadership, University of North Florida (1989)
- B.A., Elementary Education, Jacksonville University (1985)
Received *Most Outstanding Elementary Education Major Award*

Employment

Florida Institute of Education, Early Childhood Education Specialist (2005-present)
Early Learning Opportunities Act Grant research focused on low-income families, design and implement dissertation study- targeted at improving the school readiness of preschool children in low-income neighborhoods and increasing the involvement of families in this process using arts-infused activities, implementation of ongoing family involvement workshops, design arts-infused learning activities focused on early literacy for a variety of art genres, data collection, data analysis

University of North Florida, Visiting Instructor (2003-2006)

Refereed Journal Articles

- Kemple, K., M., David, Gigi M., & Hysmith, C. (1997). Teachers' interventions in preschool and kindergarten children's peer interactions. *Journal of Research in Childhood Education*, 12, 34-47.
- Kemple, K., M., David, Gigi M., and Wang, Y. (1996). Preschoolers' creativity, shyness and self-esteem. *Creativity Research Journal*, 9, 317-326.
- Kemple, K., M., Hysmith, C., & David, Gigi M. (1996). Early childhood teachers' beliefs about promoting peer competence. *Early Child Development and Care*, 120, 145-163.

Picture Book Publications

- David, G.M. (2005). *Peter and the Silent Siren*. Canada: United Way of Northeast Florida.
- David, G.M. (2006). *The Little Red Envelopes*. Canada: United Way of Northeast Florida.
- David, G.M. (2007). *Just Mollie and Me*. Canada: United Way of Northeast Florida.