The Effect of Using Art Activities in Home Literacy Bags on Elementary School Parents' Self-Efficacy Beliefs

by

Heather Brookman Kadish

A dissertation submitted to the Graduate Faculty in Educational Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

2011

This Manuscript has been read and accepted for the Graduate Faculty in Educational Psychology in satisfaction of the Dissertation requirement for the degree of Doctor of Philosophy

Helen Johnson, Ph.D.

Date **Chair of Examining Committee**

Mario Antonio Kelly, Ed.D.

Date **Executive Officer**

Daisuke Akiba, Ph.D.

Bruce Homer, Ph.D.
Supervisory Committee

THE CITY UNIVERSITY OF NEW YORK

Abstract

The Effect of Using Art Activities in Home Literacy Bags
on Elementary School Parents' Self-Efficacy Beliefs

by

Heather Brookman Kadish

Adviser: Professor Helen Johnson

The present study examined the impact of including art activities in family literacy materials on parents' beliefs about reading and their self-efficacy beliefs about their ability to teach reading to their young children. The study took place over five weeks in a private day school in New York City with middle to upper-class population. The 70 student participants (i.e., across kindergarten through second grade) were randomly assigned to either treatment (i.e., literacy bags with art experience) or control (i.e., no art), with assignment done separately for males and females. Multi-item measures were used that assessed demographics, home literacy environment, family involvement in school, children's interest in literacy, and parental efficacy and reading beliefs. Though not statistically significant, parents' self-efficacy scores in the experimental group improved and their enjoyment scores increased over time while the parents' scores in the control group fluctuated randomly across the four weeks with marginally significant differences between the two groups found during the last week. A modest statistically significant correlation was found between parents' self-efficacy and parental involvement. The students in the experimental group reported that they enjoyed the artwork. The current study suggested that offering a broader range of literacy activities can enhance and increase the impact of parent involvement initiatives

in children's literacy learning. The findings suggest a relationship between parental self-efficacy and parental involvement, and that art activities affect both of these factors. Results raised the possibility that there is value in exploring ways to extend the benefit of art activities. Limitations of the study included the variable aspects of self-reporting for data collection, potential incongruence between books used and students' particular interests and skills, limited and homogenous population sample, and limited family background information. Future research should further explore the effect of incorporating art on parents' self-efficacy and reading beliefs.

Acknowledgements

I have now achieved what started out as the greatest personal goal that I set for myself and I have many people I must thank who helped make this possible for me. My first acknowledgement goes to my advisor to whom I am deeply grateful. I am thankful to Dr. Helen Johnson who took me under her wing, believed in me, encouraged me to find my topic, and always provided me with just the perfect amount of support, comfort, and guidance. I am thankful for her patience and the kind way that she helped me navigate through these uncharted waters. I appreciated the way she ended many of her emails with the word *onward*. Thank you for the encouragement.

I am taking with me not only the title of *Doctor* and all the knowledge and experience I have obtained over this 8-year journey, but also of even greater value to me, my two friends for whom I am so thankful for meeting while in the program. Dr. Maria DiBenedetto, and Dr. Irene R. Delgado, I could not have asked for better study partners, role models, and confidants. I am truly grateful to you both. I would also like to thank my dear friend, Dana Haddad who always made me feel that this journey was possible, and it could be done. Thank you for being so instrumental and introducing me to the school where I conducted my research.

Thanks to my children, Lea and Travis, for being an inspiration to me and for being so proud of me. Not only did I want my children to be proud of their mother, but I also wanted my parents to be proud of their daughter; and so I would like to thank my Dad for not only finding the program for me, but more importantly, saying he could never do what I was doing, even though I never believed that for a moment. Thank you for giving me that confidence. And thanks to my Mom for always being there, for listening while I read my paper or while I spoke about work that needed to be done, and for always telling me that I will do it while reminding me that I

always do. Mostly, though, I want to thank my mom for being her, for forever listening to all my doubts while she never once had any doubt in me. And of course, I would like to thank my grandmother who would be so proud if she were here today. Every time we spoke she told me how smart I was, that I was a star, and she would always ask me how I was doing in school. She always had encouraging words and told me to *just keep going and you will get there*. She was right.

Table of Contents

List of Tables

The Effect of Using Art Activities in Home Literacy Bags on Elementary School Parents' Self-Efficacy Beliefs

Chapter 1: Introduction

In recent years, researchers have demonstrated the value of art experiences for increasing children's engagement in literacy activities. Parents play a pivotal role in their children's early literacy learning, and strong literacy environments are important (Christian, Morrison, & Bryant, 1998; Gillanders & Jiminez, 2004; Payne, Whitehurst, & Angell, 1994; Purcell-Gates, 1996). The current study expanded the extant research by including art activities in school children's home literacy bags to effect similar impact on parents, enhancing their involvement in shared home literacy, as well as in the school. Incorporating the arts into a literacy outreach program was predicted to elicit greater involvement as well as to increase parents' efficacy beliefs as teachers of early literacy (Green, 2008).

Chapter 1 of this study will provide an overview of the importance of parental involvement and the factors influencing the level of this involvement for children's early language and literacy along with the importance of the home literacy environment. However, encouraging parental engagement entails certain challenges involving differences in parents' beliefs about their own role in their children's education, influenced also by language and culture (Pattnaik, 2003). Teachers too often misconstrue what motivates parent involvement or lack thereof, when in fact parents may not believe in their own abilities as teachers of literacy. Chapter 1 considers the relation between parent self-efficacy and involvement, as well as strategies for strengthening them both. The current study explored the use of art activities as a way of enhancing this self-efficacy and involvement.

Parental involvement is a critical factor in the effectiveness of early literacy instruction both prior to school and once school begins. It is well documented that the home literacy environment and parental involvement are important predictors of children's early language and literacy skills (Bus, Van Ijzendoorn, & Pelligrini, 1995; Christian et al., 1998; Frijters, Barron, & Brunello, 2000; Griffin & Morrison, 1997; Levy, Gong, Hessels, Evans, & Jared, 2006; Payne et al., 1994; Purcell-Gates, 1996; Roberts, Jurgens, & Burchinal, 2005). Research shows that parental involvement and the home literacy environment are related to school achievement (Dearing et al., 2006; Englund, Luckner, Whaley, & Byron, 2004; Fan & Chen, 1999; Jeynes, 2005; Scarborough & Dobrich, 1994) and exceed other family background variables as major influences on educational attainment (Flouri & Buchanan, 2004). A number of programs have been developed to extend literacy activities to the home and increase family involvement in early literacy learning. However, it has proven challenging to find effective strategies for facilitating participation from all families. The current study expands recent research and is based on the premise that offering a broader range of literacy activities would enhance and increase the impact of parent involvement initiatives.

Parental Influence on Home Literacy Environment and Literacy Learning

Due to differences in parental support for literacy both before and during school, children are exposed to a wide range of print related experiences (Mason & Allen, 1986). Therefore, when children begin public school they enter the classroom with a variety of experiences and different levels of knowledge in many areas that are predictive of their subsequent academic achievement (Scarborough & Dobrich, 1994). At the start of formal schooling certain children may already possess capacity for numerous important skills. Some may be able to decode short words, while others may not be able to recognize the difference between letters and pictures.

Even once formal education begins, it is important to note that, “school is a temporary place that is open for six hours a day for about nine months” (Peterson, 1992, p. 15).

Since children spend more time at home than in school each day (Klassen-Endrizzi, 2000), parents play an extremely influential role in their children’s early literacy learning even once formal education begins, and the impact of this involvement is undeniable. However, Edwards, Pleasant, and Franklin (1999) indicated, “many parents see their formal educational role ceasing when their child enters kindergarten” (p. 18). Nonetheless, strong literacy environments are important before formal education begins and once children enter school. These environments affect children’s literacy learning across differences in income, education, and home language (Christian et al., 1998; Gillanders & Jiminez, 2004; Payne et al., 1994; Purcell-Gates, 1996).

Demographic Effects on Parental Involvement

Parents play a primary role in shaping children’s language and literacy experiences prior to school and once formal education begins. There are a number of variables of the home environment that seem to elicit involvement. Parental education and income are included as factors that have been linked to the quality of the home literacy environment. Although the relation between these variables is complex, the home literacy environment contributes to differences in children’s language and literacy learning in ways that are distinct from influences of parental education and income. Payne et al. (1994) and Christian et al. (1998) found that the home literacy environment had a stronger influence on children’s academic skills than parent’s level of education. These two studies confirm that high amounts of literacy activities in the home environment have an important impact during the preschool years regardless of maternal education and intelligence level. In addition, in a study with low income families, Purcell-Gates

(1996) confirmed that regardless of parents' education level, children from low income homes can acquire emergent literacy skills if provided a rich literacy environment. These studies demonstrate that a positive relationship exists between the amount of home literacy activities and language and literacy related outcome variables regardless of parents' education or income level.

Literacy acquisition is also influenced by differences in cultures, parental expectations, and values placed upon literacy (Mason & Allen, 1986). Although parent education level, family size, and socioeconomic status affect parental literacy practices, significant amounts of the variations in parent involvement stems from the beliefs parents have about their roles in their child's education generally and as teachers of literacy (DeBaryshe, 1995; DeBaryshe, Binder, & Buell, 2000; Evans, Fox, Cremaso, & Mckinnon, 2004). Consequently, it is important to examine the beliefs which influence parental literacy practices related to the development of their children's emergent literacy skills.

Impact of Parental Beliefs and Perceptions of Self-efficacy

Many factors influence parental literacy practices, including parents' beliefs about their role in education, and about their own expertise (Pattnaik, 2003). Cultural differences in these beliefs may affect parental involvement among families from diverse backgrounds. Research has indicated that parents' literacy beliefs are strongly associated with children's interest and involvement in literacy-related activities and outcomes (Bennett, Weigel, & Martin, 2002). Moreover, children benefit specifically in terms of print knowledge and reading interest, when parents believe in their own ability to teach literacy skills and are involved in literacy related activities (Weigel et al., 2006).

Research shows a great deal of variability in parental beliefs about the importance of literacy and of themselves as teachers of literacy (DeBaryshe, 1995; DeBaryshe et al., 2000;

Evans et al., 2004). Parents differ in their beliefs about their role in their children's learning, in their personal experiences with schooling, and in their self-efficacy beliefs with regard to teaching their children literacy. These differences are grounded in cultural values about family and learning. Parents may believe that it is their job to nurture their children while teachers have the ultimate authority in their children's education (Dever & Burts, 2002). Insecurity about their own reading competence may discourage parents whose schooling experiences were negative or differ from the United States educational system from engaging in literacy activities and involvement with the school (Edwards & Danridge, 2001). Parents educated outside the United States may be unaccustomed to the expectations and practices of American schools and consequently less actively involved. Sigel and McGillicuddy-De Lisi (2002) pointed out that parents within particular societies or cultures are guided by belief systems of childrearing practices that are derived from aspects of that culture. In addition, parents may not realize the impact they have on their children's learning and may not know how or in what ways they can help.

Parents, the home environments they provide, and home literacy-related activities differ in a number of important ways. Parents' beliefs about literacy and development affect how they interact with their children. Many studies focus on the best way to teach children to learn to read, and there is a longstanding debate among educators regarding whole language versus phonics approaches to literacy instruction. Therefore, it is not surprising that parents have different opinions on this matter as well. Besides having different views on how children learn to read, more importantly, parents differ in their beliefs about themselves as teachers of literacy and about their role in their children's reading development. Parents' involvement in their children's early literacy learning is related to their efficacy beliefs. In other words, it is imperative for

parents to feel that they both can and should have a tremendous impact on their children's literacy development. Research in other domains indicates that personal efficacy beliefs impact behaviors (Bandura, 1986; Zimmerman, 2000). Parents who have high efficacy beliefs as educators are more likely to be involved in their children's learning (Hoover-Dempsey & Sandler, 1997, 1995), and ultimately will " behave in ways that are more effective with their children" (Sigel & McGillicuddy-De Lisi, 2002, p. 495).

In a previous pilot study conducted in the spring of 2008, I examined home literacy practices, parental literacy beliefs, and parent perceptions of personal efficacy to support children's literacy. The pilot sample included multilingual parents of 24 kindergarten and first grade students. I conducted this research in a more diverse and heterogeneous group than has been typically studied (Kadish, 2008). Despite differences in income, language, and culture, I found that parents were willing to become involved in their children's literacy achievement. The results largely confirm previous findings that parental beliefs about the importance of literacy and themselves as teachers of literacy are associated with home literacy environment and overall school involvement (Bennett et al., 2002; DeBaryshe, 1995; Evans et al., 2004; Weigel et al., 2006). DeBaryshe (1995) showed this association in a low income and working class sample and Weigel et al. (2006) with middle income families. However, the most pertinent outcome of the pilot study was the difference in beliefs between parents with high and low levels of contact and involvement with the school. The coefficient correlation (.48) indicated a positive linear relationship exists between literacy beliefs and involvement with the school.

Two alternative explanations of this finding emerged. Families that value literacy may feel a strong sense of responsibility to be actively involved both in the home and at school. Alternatively, as families have more involvement and contact with the school, their positive

literacy beliefs and understanding of their role in their child's literacy learning may increase. Therefore, it is important to explore the effects of parents' beliefs and their sense of efficacy when involvement with the school is increased. Parents with low levels of self-efficacy beliefs may not feel comfortable or know how to be involved and may not realize the importance of their roles. Culturally diverse families represent an increasingly prominent segment of the population and these parents whose language, literacy exposure, and traditions differ from the mainstream may feel less prepared and have low self-efficacy beliefs. There may be cultural differences in beliefs about the roles of parent and teacher. Some cultures assume that parents should not be involved once formal education begins and the responsibility to teach is solely that of the teacher. Aside from this cultural influence, research shows that parents' sense of efficacy in helping their children is a primary influence on whether parents choose to become involved (Hoover-Dempsey & Sandler, 1997).

Importance of the Home Literacy Environment

After studying the home environments of 74 nursery school children, Dickinson and Tabors (2001) stressed the importance of the home environment, since home factors contribute to children's emergent literacy skills which impact later literacy outcomes. The authors contended that "providing them with rich and engaging language environment during the first five years of life is the best way to ensure their success as readers" (Dickinson & Tabors, 2001, p. 334). This point is supported by findings that children who start school with limited early literacy skills tend to have difficulty catching up and to fall increasingly further behind (Bowman, Donovan, & Burns, 2001; Snow, Burns, & Griffin, 1998). The significance of this point is underscored by evidence that in the United States, approximately one third of children fail to read at a basic level by fourth grade (National Assessment of Educational Progress, 2003, 2005).

Most children begin school between the ages of five and six years old. There are many years before formal education begins in kindergarten during which children are at home, in daycare or in preschool. Children enter school differentially prepared in ways that are significant predictors of their school achievement in language and literacy. Research shows that before formal education begins, it is important that parents provide a literacy-enriched environment with ample opportunities to see, learn and explore literacy-related activities and materials in order to develop emergent literacy skills (Christian et al., 1998; Frijters et al., Barron, & Brunello, 2000; Payne et al., 1994; Purcell-Gates, 1996; Roberts et al., 2005). Additionally, both quantity (Purcell-Gates, 1996) and quality (Levy et al., 2006; Roberts et al. 2005) of each interaction have been positively associated with language and literacy outcomes.

Differential Influences and Approaches to Literacy Activities

The home literacy environment affects children's early language and literacy development, and these early differences often persist when children enter school. Differences between families in parental beliefs about literacy learning are manifested in differences in parental involvement and contact. These differences may be more apparent when parents' culture and experiences differ from mainstream environment. A review of the literature reveals many studies that collect data on a plethora of home literacy experiences that may help to account for differences in emergent literacy skills. Most studies obtain a frequency measure for engagement in literacy activities by questioning a variety of home literacy environment characteristics and practices. The most common measure is frequency of shared book reading, but others also include age of onset of book exposure, number of books in the house, number of newspapers or magazines, hours of television viewing, number of library visits, and parent reading habits, values, and beliefs. Data are most commonly gathered through the use of self-report measures

such as surveys and questionnaires. However, a small number use direct observations as well. Research indicates that these home literacy experiences are an important influence on children's language skills, and strong correlations have been found with measures of both language and literacy (Christian et al., 1998, Frijters et al., 2000; Payne et al., 1994; Purcell-Gates, 1996; Roberts et al. 2005). Strong associations also have been found between the home literacy environment, including joint storybook reading, and oral language development (e.g., Burgess, 2002; Bus et al., 1995; Payne et al., 1994; Sénéchal & LeFevre, 2002). Thus differences in the home literacy environment affect language skills, and these skills are closely associated with development of reading skills (Poe, Burchinal, and Roberts, 2004; Roth, Speece, and Cooper, 2002) and predict reading comprehension in first and second grade (Roth et al., 2002).

The most common literacy activity studied within the home environment is shared book reading. A few studies address the unique impact that shared book reading has on children's language and literacy skills. This research on shared book reading (Bus et al,, 1995; Sénéchal and LeFevre, 2002; Burgess, 2002) revealed mixed results. Specific research shows that shared book reading is predictive of receptive language skills (Burgess, 2002; Sénéchal & LeFevre, 2002), but not the ability to recognize words and understand letter-sound relationships (Sénéchal & LeFevre, 2002). There is substantial data on the effects of active involvement including parental coaching practices, focusing on print, and questioning during shared book reading (Evans, Shaw, & Bell, 2002; Levy et al., 2006; Mol, Bus, de Jong, & Smeets, 2008; Sénéchal & LeFevre, 2002). Results from these studies indicate that while story book experiences may help receptive vocabulary and comprehension, the effects on other skills (i.e., print awareness, and knowledge of letter names) depends on the nature of the involvement while reading. However,

vocabulary development is one of the main skills needed in learning to read and make meaning from text, and exposure to books is a major source for this development (Bus et al., 1995).

In addition to shared book reading, other influential factors, including parents' enjoyment of reading and frequency of parents' modeling reading behaviors, have been studied and have yielded interesting and mixed results on their effect on children's early language and literacy achievement. Although Payne et al. (1994) found that the amount parents read to themselves was not a significant predictor of language abilities, Purcell-Gates (1996) found that families in which the adults read and write for their own uses had young children who benefited and showed more advanced understanding of written language. In more recent research, Bennett et al. (2002) found that the frequency with which children see parents reading was significantly associated with emergent literacy skills. It is possible that frequency of parental modeling of literacy activities could have an effect on children's emergent literacy skill development by piquing children's own interest in literacy.

The importance of family practices and involvement for children's early literacy development has been highlighted in recent research. While there is general consensus that families play a valuable role in supporting early literacy learning, there is some uncertainty about how these processes operate for children and families whose home and school experiences include multiple languages. Moreover, families whose language, literacy exposure, and traditions differ substantially from the mainstream may feel less prepared to support their children's literacy development. These families represent an important and increasingly prominent segment of the population, whose strengths and concerns need to be more clearly articulated and understood.

In sum, parents play a very influential role in the children's language and literacy learning by being involved in literacy related activities at home as well as in school. These home literacy experiences are important for literacy and language learning. However, great variability exists among families. It is not surprising, then, that children enter their first day of school differentially prepared. Parents' influence is significant not just prior to, but also during language and literacy learning. Hence, it is important to find ways to support families whose language, literacy exposure, and traditions differ from the mainstream since these families may feel less prepared to support their children's literacy development. Parents who feel responsible for their children's literacy development may have stronger beliefs in their ability as their children's first teachers. Additionally, parents who have high efficacy beliefs in themselves as educators are more likely to be involved in their children's learning since parents with high self-efficacy beliefs choose to be involved in activities in which they feel they can be successful (Hoover-Dempsey & Sandler, 1997, 1995).

Accessible Models for Parent Involvement

There is growing evidence that cultural and language differences affect parent involvement in children's schooling (Bennett et al., 2002; Payne et al., 1994), and variability in parental beliefs increases when viewed across culture and language differences (Pattnaik, 2003). A the same time it may be more challenging to elicit involvement from a diverse, multilingual population, these students may face special challenges at school and may be academically at risk (Pransky & Bailey, 2003). Consequently, involving their parents is especially important. In an increasingly diverse society, it is necessary to involve and reach even those parents who may not typically get involved since.

Over the past decade a variety of family literacy programs have been implemented that include instructional workshops and/or sending information home to educate parents and to increase involvement in literacy- related behaviors (Barbour, 1999; Cook-Cottone, 2004; Dever & Burts, 2002; Faires, 2000; Handel, 1999; Jordan, Snow, & Porsche, 2000; Morrow & Young, 1997; Padak, Sapin, & Baycich, 2002; Sénéchal, 2006). However, there is no consensus as to what the best practices are and how best to involve parents in children's early literacy learning. It is often difficult and sometimes unrealistic for parents to attend meetings at school (Jordan et al., 2000; Morrow & Young, 1997). Consequently, researchers have found that sending materials home, often in the form of booklists or literacy bags, is a way to reach parents, even those who have been nonresponsive to other efforts (Barbour, 1999; Dever & Burts, 2002; Faires, 2000; Handel, 1999). Although these methods have been promising, there is a need to explore ways to maximize the impact of materials sent home, to determine whether different types of content using different modalities increases the appeal to an increasingly diverse, multilingual population.

One way to do this may be through the incorporation of the arts since the arts have proven to be an integral component in children's language and literacy development (Johnson, 2007). Unlike other instructional methods, the arts have been shown to broaden children's interests by promoting a richer, deeper learning experience (Berghoff, 2001; Carger, 2004; Ehrenworth, 2003; Heymsfeld, 1997; Johnson, 2007; Walker, 2000). In addition, the arts have the ability to accommodate and utilize student differences and have proven successful in engaging children from diverse backgrounds in early literacy learning (Carger, 2004; Ehrenworth, 2003). Consequently, the arts may be particularly suited to eliciting involvement from families with diverse language and cultures. Incorporation of the arts is a way of engaging

with the world that allows for personal interpretations by weaving the familiar into other forms of representations (Ehrenworth, 2003). Unlike other more traditional practices, encounters with the arts increase student's beliefs in their abilities (Greene, 2008). Through the arts children experience success which is one of the most powerful ways that self-efficacy can be increased (Bandura, 1995). Just as the arts enable children to experience greater success in literacy, they may help to support the development or enhancement of parental efficacy as teachers of early literacy and thereby increase their involvement in their children's early literacy learning.

Strong home literacy environments are important and parents play a pivotal role in their children's early literacy learning (Christian et al. 1998; Gillanders & Jiminez,, 2004; Payne et al., 1994; Purcell-Gates, 1996). For this reason schools are reaching out, asking parents to be involved. However, there are special challenges engaging families who differ in language, culture and in beliefs about their own role in their children's education (Pattnaik, 2003). Too often when parents do not respond, teachers assume they do not care. But it may be that rather than not caring, they do not believe it is their responsibility, or they may not believe in their own abilities as teachers of literacy. It is important to develop an approach that will be accessible and sensitive to issues parents may have about their own capacity as teachers of early literacy.

The literature review reveals that incorporating the arts has made a notable contribution to children's literacy learning. Using the arts enables children to become more actively involved in the learning process, broadening their interests and promoting a richer, deeper learning experience (Berghoff, 2001; Carger, 2004; Ehrenworth, 2003; Heymsfeld, 1997; Johnson, 2007; Walker, 2000). The most powerful ways to increase self-efficacy are emotional arousal and positive experiences (Bandura, 1989). By providing positive experiences that elicit emotional arousal, literacy experiences with art increase children's efficacy as learners (Soundy & Qiu,

2006). This study expands upon the extant research by incorporating the arts with literacy to increase parent's self-efficacy as teachers of literacy in a manner that may be more accessible to parents than other more traditional approaches.

Chapter 2: Review of the Literature

Parental Involvement in Home Literacy

The following review of the literature examines aspects of language and literacy learning that contribute to parental literacy practices, as well as the influences of the home literacy environment on early language and literacy learning. Findings related to book reading, parental literacy beliefs, parents' level of education and income, and parental efficacy beliefs about themselves as teachers of literacy will be explored. The review will cover models for eliciting parental involvement, including a variety of family literacy programs, and consider the incorporation of the arts in literacy learning.

Parents are children's first teachers and have an extremely influential role in their children's' early literacy learning. However, literacy experiences in the home environment prior to school entry vary greatly and many parents see their formal educational role ceasing when their child enters kindergarten. Parental involvement is a critical factor in the effectiveness of early literacy instruction and is related to children's early language and literacy skills (Bus et al., 1995; Christian et al., 1998; Frijters, Barron, & Brunello, 2000; Griffin & Morrison, 1997; Levy et al., 2006; Payne et al., 1994; Purcell-Gates, 1996; Roberts et al., 2005).

In an attempt to account for the differences in children's literacy and language skill development, the home literacy environment has been the focus of many studies and data have been collected on these home literacy experiences in a variety of different ways. Most studies obtain a frequency measure for engagement in literacy activities by asking parents many questions regarding anything that may influence children's emergent literacy skills and language development. The most commonly measured variable is frequency of shared book reading, but others also include age of onset of book exposure, number of books in the house, number of newspapers or magazines, hours of television viewing, number of library visits, parent reading

habits, values, and beliefs. Data are most commonly gathered through the use of self-report measures such as surveys and questionnaires. However, a small number of studies use direct observations as well.

In one study with 323 4-year-olds from low income families, Payne et al. (1994) examined the relationship between nine aspects of the home literacy environment and children's receptive and expressive vocabulary. Results indicated that the literacy environment was an important influence on children's language skills and accounted for 18.5% of the variance. Frequency of shared reading, age of onset of reading, number of minutes read to the child yesterday, number of picture books in the home, frequency that the child asked to be read to, and frequency of library visits were significant predictors of literacy and language abilities. However, caregiver enjoyment of reading, time the caregiver spent reading alone, and the frequency with which child looked at books alone were not significant predictors of children's language skills.

Similar results were found in another study of the home environment with 317 middle class mothers and their 4- to 5-year-old children. Christian et al. (1998) used results obtained from a family literacy environment questionnaire to assess influences of the home literacy environment on children's language, as well as letter recognition and word decoding skills. The main effect confirmed a positive association between the home environment and the language and literacy outcome variables.

Both Payne et al. (1994) and Christian et al. (1998) used surveys and questionnaires to collect their data. Although self-report measures are the most common way to assess the home literacy environment, they are often not reliable since parents may tend to give answers that are socially desirable. In addition, self-reports of behavior may not match actual behavior. Using actual observations of literacy events, Purcell-Gates (1996) confirmed the importance of the

home environment. The relationship between literacy activities in the home and children's understanding of print concepts, alphabetic principle, and knowledge of forms of written language was analyzed in a small sample of 20 low income families with children between the ages of four and six. Literacy events were observed and field notes were coded. Results indicated that families with more literacy events had children with more knowledge of forms and conventions of written language.

Frijters et al, (2000) examined the effect of the home literacy environment with 95 children between the ages of five and six, and also explored the effects of children's interest in books. The measures of home literacy experiences included frequency of shared book reading, frequency of trips to the library, and age of onset for shared book reading. Children's literacy interest was described as how children feel about engaging in literacy activities and was assessed by using a pictorial questionnaire with the children (Frijters et al., 2000). Similar to Payne et al. (1994), Frijters et al. found data indicated that in addition to age of onset and frequency of book reading, children's interest in book reading also was a strong predictor of receptive vocabulary, knowledge of letter names and sounds, and phonological awareness. Literacy interest and home literacy measures contributed independently to the unique variance in letter name and letter sound knowledge with home literacy accounting for 12% and literacy interest for 6%. Therefore, in addition to activities that parents do with print and the environment, children's literacy interest was also related to measures of print language achievement, namely letter name and letter sound knowledge.

In more recent research, Roberts et al. (2005) studied the effects of the home environment on language and emergent literacy skills. As part of a longitudinal study, 72 children from low income homes were studied from their first year of life through kindergarten. Four specific

measures of home literacy practices: shared book reading frequency, maternal book reading strategies, child's enjoyment of reading, and maternal sensitivity were analyzed. The effects of these measures on children's early language and literacy skills were examined. In addition, the home environment was analyzed by using The Home Literacy Environment Scale, a widely used 45-item, semi-structured, standardized observation / interview to measure parental responsiveness, acceptance of child's behavior, organization of the environment, academic and language stimulation, and parental involvement with the child. Frequency and enjoyment were assessed using parental questionnaires, and shared book reading interactions were observed, recorded, and coded for maternal sensitivity and book reading strategies. Frequency of shared book reading and measures of the child's enjoyment were not significantly related to either language or literacy outcome variables. Both parenting quality indices (i.e., maternal strategies, and sensitivity) were significantly correlated with language skills (i.e., receptive vocabulary), but not literacy outcomes. However, analysis of the home environment revealed a strong and consistent correlation with both language and literacy measures that contributed over and above the specific measures.

Since the specific measures were found to be highly correlated with the overall measure of the home environment, Roberts et al. (2005) suggested that the specific home literacy practices may be measuring some of the same dimensions included in the overall measure of the home environment. The overall measure assesses several aspects simultaneously that together may have a greater impact on children's language and literacy development than the specific measures, providing one explanation for stronger linkages between children's language and literacy skills with the overall measure as compared to the specific measures of home literacy practices. Therefore, it may be difficult to assess which specific aspects of the home environment

are actually predictive of children's literacy and language skills since the home literacy environment has an overall impact that is not easily specified by individual components.

There are other parental factors that can contribute to home literacy experiences. Parents may have an effect on their children beyond the impact of their particular behaviors. Confirming the influence of the home environment on preschoolers' language and literacy, Bennett et al. (2002) found that the family literacy environment was significantly associated with emergent literacy skills in 143 preschool age children. They identified and compared three different broad areas of the home literacy environment, including home literacy activities, emotional climate, and involvement with school. Emotional climate and families' involvement with the school were not found to be significantly associated with children's emergent literacy skills. The only aspect of the home literacy environment that was related to literacy skills was literacy activities, which included parents' developmentally appropriate reading beliefs, their enjoyment of reading, and the frequency with which they modeled literacy behaviors. Results revealed that each of these factors also has a significant association with children's emergent literacy skills.

These studies (Christian et al., 1998; Frijters et al., 2000; Payne et al., 1994; Purcell-Gates, 1996; Roberts et al., 2005) show that although the home literacy environment is important, it may be difficult to determine which aspects of the home environment are most influential and have the strongest effects on children's literacy and language skills. Although less studied than home literacy activities, children's interest in literacy activities is a common variable that emerged across studies as a significant predictor of children's language and literacy development (Frijters et al., 2000; Payne et al., 1994) and may also be an important contributor (Roberts et al., 2005). In addition to the literacy activities of the parents, it may be important for

parents to create an interactional context to encourage their children's interest in reading (Bus, 2003).

Aspects of the Home Literacy Environment

Shared Book Reading

The common element measured in all of these studies of the home literacy environment is that of shared book reading. The following studies attempt to assess the unique contribution of this one aspect of the home literacy environment, shared book reading, to children's language and literacy skills. A meta-analysis by Bus et al. (1995) examined studies on joint book reading independently and as a composite measure that included other aspects of the home literacy environment. Findings revealed that frequency of shared book reading explained 8% of the variance, which is a medium to strong effect, on language skills, reading, and emergent literacy skills. During shared book reading, children are exposed to print and become familiar with written language. Therefore, it s not surprising that the strongest effect found was on language. Bus et al. (1995) concluded that although shared book reading is the central component of the literacy environment, other elements of the home may be critical as well. It is important to note that in most of the studies analyzed in the meta-analysis, shared book reading was part of a composite measure which included other aspects of the home environment.

Additional studies from the last two decades examined the individual effect of shared book reading. In a sample of 115 4- to 5-year-olds from middle class homes, Burgess (2002) examined the frequency of shared book reading, parental reading habits, number of books, parent education, and the age parents started reading to their children, in relation to expressive and receptive language abilities. In addition to frequency of shared book reading, the number of books and the age of onset for reading were significantly correlated with outcome measures.

However Burgess' study revealed that frequency of shared reading, examined individually, was a significant predictor only of receptive language abilities. In this middle class sample, parent education was not a significant predictor, confirming other research (Payne et al., 1994; Christian et al., 1998).

Although frequency of shared book reading was found to be predictive of receptive language, it is important to know which activities promote other emergent literacy skills such as print awareness and letter and sound knowledge. In a 5-year longitudinal study, Sénéchal and LeFevre (2002) explored and compared the relations between two types of literacy activities and emergent literacy skills. They obtained data on exposure to story books with the book title checklist method and parental reports of the frequency with which they taught their children to read and print words. Emergent literacy skills were assessed through tests on concepts about print, alphabet knowledge, decoding, and invented spelling. Parent reports of teaching and story book exposure were uncorrelated. These two types of experiences also related differently with the children's literacy and language skill outcomes. Sénéchal and LeFevre (2002) reported that although storybook exposure predicted receptive language it did not predict other emergent literacy skills. However, parents' reports of teaching did predict later elementary literacy skills. Parents' reports of teaching accounted for 12 % of the variance in reading skills at the end of first grade and indirectly predicted reading skills at the end of third grade. Storybook exposure, which predicted receptive language, explained a significant amount of the variance of reading skills at the end of third grade. Sénéchal and LeFevre (2002) concluded that storybook exposure, a measure of frequency of shared book reading, is important in the development of children's receptive language skills, and thereby facilitates reading in later elementary school. While

storybook exposure is not related to emergent phonological skills, it contributes to receptive skills, which become more central in later elementary school.

The home literacy environment includes the resources, activities, and influences of children and parents on literacy and language skills. These studies show that even before formal education begins, it is important that parents provide a literacy enriched environment with plenty of opportunities to see, learn, and explore literacy related activities and materials in order to develop emergent literacy skills. Research shows that shared book reading is predictive of receptive language skills (Burgess, 2002; Sénéchal & LeFevre, 2002), while specific activities that address names and sounds of letters may be necessary for some children to impact emergent phonological skills (Sénéchal & LeFevre, 2002). Receptive language skills are necessary to build vocabulary and aid in story comprehension, which are important skills for literacy development and are necessary for children to become successful readers (Neuman & Roskos, 2005; Richardson, Richardson, Sacks, & Sacks, 1993).

Active Involvement

It is apparent that different activities and experiences are related to different aspects of emerging literacy and language skills. Emergent literacy skills are characteristics of pre-readers and their knowledge and attitudes that are related to later reading and writing (Whitehurst & Lonigan, 1998). These skills may include the ability to identify and print letters, understand letter-sound relations, recognize some printed words, and know the purpose and mechanics of book reading (Scarborough & Dobrich, 1994). Sénéchal and LeFevre (2002) showed that two different unrelated activities in the emergent literacy environment, shared story book reading and parental teaching, contribute to different aspects of literacy and language development. Storybook reading was related to later receptive language and later reading, but was not related

to other emergent literacy skills such as the ability to recognize words, and understand letter sound relations. Since many children do not focus on the printed words when being read to, they may not learn letter names, letter name sounds, or concepts about print. Evans et al. (2002) suggested that active involvement may be necessary for children to learn these emergent phonological skills. Consequently, there is a need to consider different types of shared book reading experiences and their relation to emergent literacy development.

In a recent meta-analysis Mol et al. (2008) compared the benefits of interactive versus non-interactive shared book reading. Dialogic reading was used as the model of interactive book reading with parents and their 2- to 6-year-old children. Unlike shared book reading in which the parents read to the child, during dialogic reading parents read with their children while stimulating active verbal involvement from the child. Mol et al. expected to find strong effects on vocabulary with stronger effects for expressive than receptive vocabulary. The results of the study show that the effects of shared book reading are enhanced by involving the child through eliciting verbal responses to open ended questions, but the impact on expressive vocabulary was much greater with the younger children. One reason the authors offered for this is that children in kindergarten may depend less on adults and may actually prefer to hear the story without interruptions. Mol et al. (2008) also suggested that the effects of dialogic reading may vary depending on the parents' education level since less educated parents may not be as adept at incorporating questions while reading with their children. This meta-analysis revealed positive effects of dialogic reading on young children's expressive vocabulary; it did not assess its impact on other aspects of emergent reading, that is, the ability to identify and print letters, understand letter sound relations, recognize some printed words, and know the purpose and mechanics of book reading (Scarborough & Dobrich, 1994). Vocabulary development is a primary skill needed

in learning to read, and exposure to books is a major source for this development (Bus et al., 1995).

Language Development

Strong associations have been found between different aspects of the home literacy environment including joint storybook reading and oral language development (e.g., Burgess, 2002; Bus et al., 1995; Payne et al., 1994; Sénéchal & LeFevre, 2002). Sénéchal and LeFevre (2002) found that shared book reading predicted receptive language of 4- and 5-year-old children. Payne et al. (1994) also found a strong relationship between home literacy environment and preschool children's language development. Although Evans et al. (2004) found that both parents and teachers valued the development of oral language for reading, it is important to determine if there is a connection between oral language and emergent literacy skills. Roth et al. (2002) investigated the connection between the oral language skills of 88 kindergarten children and their reading ability in first and second grades. They explored the different domains of language, including oral, metalinguistic skills, and narrative discourse, and their relationship to reading development. They found that while oral language predicted reading comprehension in first and second grades, phonological awareness only predicted word and pseudoword reading, but not reading comprehension.

Poe et al. (2004) also found that both language and phonemic knowledge were positive predictors of reading skills. Poe et al. hypothesized that the home literacy environment would not only be related to reading through language, but also that language would be related to reading indirectly through phonological knowledge. In a longitudinal study following 77 low income children, followed from pre-kindergarten through second grade, the authors found that language was positively related to phonemic knowledge and had the strongest association with second

grade reading skills, which included both a letter word identification scale and comprehension measures. The quality of the home environment was found to be related to reading skills since children acquire both language skills and phonemic knowledge before school entry. Both studies confirm that language skills are important and are closely associated with the development of reading skills (Roth et al., 2002; Poe et al., 2004). Poe et al. posited that language skills are needed to acquire phonological skills, and that both language and phonological skills are necessary for decoding. Once children can decode sufficiently, language skills are needed for reading comprehension. Therefore, home literacy experiences are related to reading through language (Poe et al., 2004).

In sum, the home environment is an important influence and parents' active role is critical to children's language and literacy development. It may be difficult for parents to know how they should be involved, in essence, what their goals in shaping the home literacy environment should be. They may not know what skill (i.e., letter names and sounds, vocabulary, comprehension) to concentrate on to help their children. The International Reading Association's (IRA) and The National Association for the Education of Young Children's (NAEYC) joint position paper on children's literacy development states that adults play a critical role in children's literacy development by engaging their interest and supporting their learning (Neuman & Roskos, 2005). One of the most important points made in the position paper is that young children need to engage in literacy learning through meaningful experiences, and it is not letter knowledge or phonological skills that drive children's early experiences with print (Neuman & Roskos, 2005). The IRA and NAEYC strongly assert that parents should concentrate their time on developing their children's comprehension, language, and vocabulary development since

these are important skills children need for literacy development long term (Neuman & Roskos, 2005; Richardson et al., 1993).

Extant research shows that the home literacy environment is important to children's literacy and language development. Studies indicate that it may be difficult to assess which specific aspects of the home literacy environment (e.g., frequency of shared book reading, number of books in the house, number of newspapers or magazines, hours of television viewing, number of library visits, and parent reading habits) actually predict children's literacy and language skills (Bennett et al., 2002; Christian et al., 1998; Frijters et al., 2000; Payne et al., 1994; Purcell-Gates, 1996; Roberts et al., 2005). However, a number of studies addressed the unique contribution of shared book reading to children's literacy and language skills (Burgess, 2002; Bus et al., 1995; Christian et al., 1998; Payne et al., 1994; Sénéchal & LeFevre, 2002). Findings from these studies show that shared book reading predicts receptive language, which facilitates reading in later elementary school by building vocabulary and aiding in story comprehension. However, shared book reading does not predict other emergent literacy skills such as the ability to recognize words and understand letter sound relations (Burgess, 2002; Bus et al., 1995; Christian et al., 1998; Payne et al., 1994; Sénéchal & LeFevre, 2002). A recent meta-analysis showed that the type of shared book reading experience (i.e., interactive vs. non-interactive) may enhance expressive vocabulary development (Mol et al., 2008). Interactive shared book reading such as dialogic reading may be beneficial, but the effects may vary greatly depending on the parent's education level. One explanation for this variance is that dialogic reading is not a self-evident phenomenon; a less educated parent, in contrast to a more highly educated parent, may explain only certain details and not involve the child in thinking about the events in the book (Mol et al., 2008).

Strong associations were found between the home literacy environment and children's language development (Payne et al. 1994). The research also shows that language skills are associated with children's literacy skills (Payne et al., 1994; Roth et al., 2002; Poe et al., 2004). Therefore, the home literacy environment is important and the parent's active role at home may have significant impact on children's literacy skills. However, the home literacy activities that parents provide vary greatly: there are many explanations for these differences including parental income and education level, beliefs, cultures, expectations, and values placed upon literacy. The sources for these differences stem largely from the beliefs parents have about their roles in their children's education generally and as teachers of literacy (DeBaryshe, 1995; DeBaryshe et al., 2000; Evans et al., 2004).

Parental Beliefs

Parental beliefs in their ability to teach literacy play a key role in determining level of involvement, since parents may not feel confident enough or know how to get involved in their children's early literacy learning (Grolnick et al., 1997; Primavera, 2000). In other domains it has been found that personal efficacy beliefs impact behaviors (Bandura, 1986; Zimmerman, 2000). Research shows that parents who have high efficacy beliefs as educators are more likely to be involved in their children's learning (Hoover-Dempsey & Sandler, 1997, 1995).

The following studies investigate the effects of parental literacy beliefs on parents' literacy-related behavior and the effects these behaviors have on children's literacy development. Many use the DeBaryshe and Binder (1994) Parental Reading Belief Inventory (PRBI), developed as a tool to assess parental beliefs about parents' roles and interactions in reading with their children. In a mixed income sample of 155 parents of children between the ages of two and five, DeBaryshe and Binder assessed the psychometric properties of the PRBI, and found that the

inventory scores were significantly related to parental education and family income. Even after controlling for these variables, literacy beliefs remained significantly and positively associated with aspects of early literacy experiences including parental modeling of reading, book exposure, children's interest, and parents' use of book reading strategies. Regardless of income and level of education, parents' literacy beliefs were positively related to parental reports of reading activities (DeBaryshe & Binder, 1994).

In a middle class sample of families with preschool aged children, Weigel et al. (2006) investigated how parental beliefs about their role in literacy development affect aspects of the home literacy environment and children's print knowledge and interest. Weigel et al. interviewed parents using the DeBaryshe & Binder (1994) PBRI and identified two types of parental groups. One group, termed facilitative, believed that they could help their children and that being active in literacy would help their children learn to read. The other group, termed conventional, believed that preschoolers were too young to begin to teach and that teaching reading is the school's job. Parents in this group were less likely to believe that it was their responsibility to teach their children emergent literacy skills. Analysis of demographic characteristics revealed that group membership was not predicted by the age of the mother, literacy abilities, or income. Facilitative mothers had higher education levels, had better grades in school, and enjoyed reading more than mothers in the conventional group. Testing children one year after the initial assessment, Weigel et al. found that when compared to children whose parents had conventional beliefs, children whose parents had facilitative beliefs had made more gains in print knowledge and reading interest. However, other areas that are deemed critical in emergent literacy development such as phonemic awareness, letter knowledge, and word decoding were not assessed. The Weigel et al. study did reveal that middle class parents certainly differ in their

beliefs about their roles and responsibility in their children's literacy development. These differences influenced interactions and outcomes. In this homogeneous sample of middle class families, it is not surprising that income was not found to differentiate between belief groups.

With families ranging from average to high income, Evans et al. (2004) also assessed parental beliefs about the role and responsibility of parents in the development of emergent literacy skills of their kindergarten aged children. Evans et al. developed a skill development survey to assess the importance parents place on literacy acquisition and their view of the extent of their responsibility for literacy development. Parents were asked to rate the importance of knowledge in nine different curriculum and developmental areas (e.g., literacy, math, morals, and health) and estimate their influence on each area. In addition, parents were asked the extent to which home or school was responsible for their children's learning in each area. They were asked to rank order up to three domain areas for which they felt that either the school or the home had the most responsibility. In importance, parents ranked literacy development as the highest, with moral development a close second. Parents indicated that although no area was unimportant, they felt that they had more influence on literacy development than all other domains with the exception of moral development. Analysis of school versus home responsibility of the different domains yielded interesting results. Although Evans et al. reported that most parents viewed literacy as most important, surprisingly only 26% of the parents chose the home as responsible for development in this area, whereas 42% chose the school as primarily responsible. It is important to note that 32% of the parents did not respond to this item. In direct contrast to this, 98% of parents selected the home as being responsible for moral development and 90% of parents thought that school was responsible for the development of mathematics skills (Evans et al. 2004). These data indicate that while parents are unequivocal about their

responsibility for their children's moral development, they are less certain about responsibility for their children's literacy learning and rely more on school in this area.

In sum, parental literacy beliefs were found to be positively associated with children's early literacy skills (DeBaryshe & Binder, 1994) and to significantly influence literacy interactions and outcomes (Weigel et al., 2006). Yet, even though parents feel that literacy is the most important when compared to other developmental and curricular areas, the majority of the parents do not believe that it is their responsibility to teach their children to read, believing instead that it is the school's responsibility to teach literacy skills to their children (Evans et al. 2004). In addition, DeBaryshe and Binder (1994) found that the parents' literacy beliefs were positively related to reading activities even after controlling for parent education or income level.

Effect of Education and Income on Beliefs

Parents' level of education may have direct effect on children's learning, or may contribute to it indirectly through influences on home literacy experiences. Both Payne et al. (1994) and Christian et al. (1998) analyzed the effect that mother's education has on literacy outcome variables. In a sample of low income families, Payne et al. found that once a mother's level of education was removed from the equation, the home environment variables still accounted for 12% of the variance. Christian et al. used a scale that summed point values on nine literacy-related items such as number of books and trips to the library to assess the home literacy environment. The findings of Christian et al. confirmed the results of Payne et al. These findings indicate that children in high home literacy environments with less educated mothers have higher academic skills than children in low literacy environments with mothers that have higher levels of education. In other words, children of the less educated mothers who scored high on the family literacy environment scale outperformed the children whose mothers were better educated

but engaged in fewer literacy activities. These two studies confirm that regardless of the level of maternal education, high amounts of literacy activities in the home environment during the preschool years are important influences on children's early literacy learning. In a study with low income families, Purcell-Gates (1996) confirmed that regardless of parental education level, children from low income homes can acquire emergent literacy skills if provided with a rich literacy environment. These studies demonstrate a positive relationship between the amount of home literacy activities and language and literacy-related outcomes, and suggest the value of supporting parental efforts to provide rich home literacy environments.

DeBaryshe (1995) compared low income and working class samples of preschool aged children and their mothers on parental beliefs and literacy outcomes. A family survey was given to determine socioeconomic status, the mother's interest in reading, and the children's degree of exposure to joint reading. Socioeconomic status, which included questions on education level and income, was positively associated with parental literacy beliefs in both groups, and mother's interest in reading was positively associated with parental beliefs in the lower income group. It should be noted that while groups differed somewhat in income, both were considered low income. In both groups the majority had completed high school and only a small number had college degrees. Unlike the findings with middle class families by Weigel et al. (2006), income in the DeBaryshe sample was associated with literacy beliefs. Similarly to Weigel et al., parents with higher education and with stronger literacy enjoyment had more facilitative belief systems. In addition, both groups of parents scored high on the PBRI (DeBaryshe & Binder, 1994), which indicated that parents felt they were important teachers for their children, that reading should be enjoyable, and that limits in time and resources should not prevent active participation when reading aloud (DeBaryshe, 1995). DeBaryshe found that both groups of parents valued literacy,

had positive attitudes about reading, felt they had significant roles in their children's literacy development, and thought they were good at teaching literacy skills to their children. Parental literacy beliefs were strongly associated with the literacy activities they provided for their children, specifically, book exposure and stimulating discussions about the reading, as well as with their children's interest in book reading.

Similar results were found in a study with a middle income sample of 143 families with preschool aged children (Bennett et al., 2002). The PRBI was used as part of their family educator model that included beliefs, literacy activities, and parental education. On average parents had attended some college, scored high on the inventory, and engaged in large amounts of literacy related activities. Results showed a positive relationship between literacy beliefs, literacy activities, parental education, and children's language and literacy skills. This means that high parental literacy beliefs were associated with parents' active involvement in literacy related activities, and enhanced literacy skills in their children.

The PRBI used in the previous studies (DeBaryshe, 1995; Evans et al, 2004; Bennett et al., 2002) included items that rated the importance of literacy and the importance of parents as teachers. Unlike the skill development survey developed by Evans et al., the PBRI did not directly address parental opinions on whether the school or parent was more responsible for the children's literacy development. The studies reviewed (DeBaryshe, 1995; Evans et al., 2004; Weigel et al., 2006) present conflicting findings in regards to both education and income level and the relationship of these factors to the parent's views on responsibility for literacy development. Interestingly, significant correlations were found between parental views of the home as responsible for literacy development and family income in the Evans et al. (2004) middle to upper class sample, but income did not differentiate adherence to facilitative vs.

conventional parenting beliefs in the Weigel et al. (2006) middle class sample. In addition, conflicting findings were found in regard to parental education. Unlike other research (Bennett et al., 2002; DeBaryshe, 1995; Weigel et al., 2006) that found parental education influenced parental literacy beliefs, Evans et al. found that education level was not correlated with parents' views. It is necessary to determine if education level and income level have significant influence on parental views regarding the importance of literacy development and feelings of responsibility.

Bingham (2008) assessed how beliefs relate to the home literacy environment and parent-child reading interactions using a predominantly Euro-American sample of 60 mothers and their 3- and 4-year-old children. Unlike the prior research of Bennett et al. (2002), DeBaryshe (1995), and Weigel et al. (2006), Bingham found that parental education level was not a determining factor and the relationship between beliefs and behaviors existed even after controlling for educational differences. Bingham created a 2-item questionnaire based on the PRBI and the skill development survey developed by Evans et al. (2004) to get a more accurate understanding of what particular types of parent beliefs are the most powerful predictors of parental behaviors. This was an important step since the PRBI assesses several literacy social cognitions that made it difficult to determine what belief types may be associated with the outcomes.

Bingham (2008) focused on specific areas of beliefs, that is, how parents should read, and how parents think literacy skills are developed in the home. Parent-child book reading interactions were assessed and coded from videotaped observations in the home. Consistent with previous research (Bennett et al., 2002; DeBaryshe, 1995; Evans et al., 2004; Weigel et al., 2006), beliefs were positively related to the home environment and instruction, and quality of joint reading, which are related to early literacy skills (Levy et al., 2006; Roberts et al., 2005).

Unlike the prior research (DeBaryshe, 1995; Weigel et al., 2006), Bingham assessed children's literacy development by assessing their alphabet knowledge and emergent reading knowledge. Results show that parental beliefs were related to parent child literacy interactions that were positively related to children's emergent literacy skills.

Another study of notable significance is that of Currenton and Justice (2008) including 45 Appalachian children between the ages and of three and five and their families. Currenton and Justice posited that maternal beliefs about reading "is a key differentiating factor in the literacy socialization experiences for children of less and more educated mothers" (p. 275). Using PRBI, Currenton and Justice examined the relationship between parental beliefs, the home environment, and children's pre-literacy skills with a low socioeconomic status (SES) population. To assess the home environment, parents completed a 9-item questionnaire concerning the frequency of home literacy activities, and children were individually administered a standardized assessment to assess their pre-literacy skills. Unlike Bingham (2008), maternal education was significantly associated with the measures of pre-literacy skills, and beliefs, but not with reported home literacy practices. Further analysis revealed that mothers' beliefs were a mediating factor between mothers' education level and children's preliteracy skills, specifically their understanding of print conventions. The results of this study show that maternal beliefs may have a more powerful impact on children's pre-literacy skills than the frequency of home literacy activities (Currenton & Justice, 2008).

Increasing evidence supports the importance of early experiences in promoting children's literacy development. Regardless of parental education and income level, it is important that all parents feel responsible for their children's literacy development while also believing in their own ability as their children's first teachers since personal efficacy for helping children is a main

reason parents become involved (Hoover-Dempsey & Sandler, 1995). In a small, but important study, Gillanders and Jimenez (2004) interviewed six low income Mexican parents with low levels of education and with children enrolled in kindergarten who had not previously attended any preschool, yet exhibited high levels of literacy. They found that despite being bilingual, poor, and having a low level of education, these parents were successful in supporting their children's literacy development. This study, although small, shows that active involvement is critical in the years prior to formal schooling for the development of emergent literacy skills, and that values and focus on literacy can override simple demographics. Regardless of parental education and income level, it is important that all parents feel responsible for their children's literacy development while also believing in their own ability as their children's first teachers since personal efficacy for helping children is an essential impetus for parental involvement (Hoover-Dempsey & Sandler, 1995).

Parental Efficacy

Self-efficacy is "a belief in one's capability to organize and execute the courses of action required to manage perspective situations" (Bandura, 1995, p. 2). People who have higher self-efficacy beliefs in a certain domain will feel, think, and act differently from people who view themselves as less efficacious (Bandura, 1989). More specifically, Teti and Gelfand (1991) defined parental self-efficacy beliefs as the expectations parents have about their ability to carry out their role effectively. Teti and Gelfand concluded in their research with mothers of infants that these beliefs have a crucial role in determining parenting behaviors. The authors showed that self-efficacy accounted for or explained the relationship between predictor variables (e.g., infant temperament, maternal depression, and social marital supports) and parenting quality. Efficacy beliefs influence the type of involvement parents choose. Parents choose to be involved in

activities in that they feel they can be successful (Hoover-Dempsey & Sandler, 1995). In addition, Sigel and McGillicuddy-De Lisi (2002) related self-efficacy to parental beliefs under the hypothesis that, “if parents feel competent they will behave in ways that are more effective with their children” (p. 495). Parent’s beliefs in their abilities in different domains will influence their effectiveness in a variety of areas including their ability as teachers of literacy. Evidence of this is suggested in a study with African American parents with 6- to 9-year-old children by Brody, Flor, and Gibson (1999). Brody et al. found that parents’ efficacy beliefs predicted parenting practices through their endorsement of developmental goals. Despite economic adversity, parents with a high sense of efficacy were more likely to create goals for their children which impacted their positive parenting practices to promote competence.

In a review of the literature on parents’ self efficacy beliefs, Coleman and Karraker (1998) found that “high parenting self-efficacy is strongly related to maternal ability to foster a healthy, happy, and nurturant childrearing environment” (p. 62). In addition, Coleman and Karraker suggested that parents need to learn to have faith in their abilities, and traditional intervention efforts that focus on skills alone may not be sufficient. In a study to enhance parenting practices with newly migrated Mexican immigrants, emphasis on strategies to increase parental self-efficacy beliefs were found to be more important than simply providing social support (Izzo, Weiss, Shanahan, & Rodriguez-Brown, 2000). Izzo et al. posited that one way to increase parental self-efficacy beliefs may be to provide parents with a series of successes. Bandura (1989) confirmed this approach, asserting that the most powerful way to increase self-efficacy is through positive experience, vicarious experience, verbal persuasion, and emotional arousal. Therefore, in an effort to increase parental support of children’s literacy skills, interventions should aim to increase parental self-efficacy beliefs in their ability to teach these skills. Ideally, parental

literacy programs should incorporate the factors identified by Bandura (i.e., positive experience, vicarious experience, verbal persuasion, emotional arousal) to increase the parent's level of self-efficacy. Evidence indicates that parental feelings of responsibility and effectiveness with regard to their children's learning serve to promote optimal development (Brody et al., 1999; Coleman & Karraker, 1998; Hoover-Dempsey & Sandler, 1995; Izzo et al., 2000; Sigel & McGillicuddy-De Lisi, 2002; Teti & Gelfand, 1991). There are many reasons why some parents are more involved in their children's literacy learning than others. Parents within particular societies or cultures are guided by belief systems of childrearing practices that are derived from aspects of that culture (Sigel and McGillicuddy-De Lisi, 2002). Parents from different cultural backgrounds may lack confidence in their abilities in helping their children learn literacy skills (Xu, 1999). Insecurity about their own reading competence may discourage parents whose schooling experiences were negative or differ from the United States educational system from engaging in literacy activities and involvement with the school (Edwards & Danridge, 2001). In addition, parents educated outside the United States may be unaccustomed to the expectations and practices of American schools and consequently less actively involved. Parents may believe that it is their job to nurture their children while teachers have the ultimate authority in their children's education (Dever & Burts, 2002).

Family Literacy Programs

The goal of all family literacy programs is to increase home literacy experiences to benefit children's literacy development. Over the first decade of the 21st century there have been a variety of family literacy programs. These programs have included instructional workshops and sending information home to educate parents, designed to increase involvement in literacy related behaviors (Barbour, 1999; Cook-Cottone, 2004; Dever & Burts, 2002; Faires, 2000;

Handel, 1999; Jordan et al., 2000; Morrow and Young, 1997; Padak et al., 2002; Sénéchal, 2006). Family literacy programs contribute to language development and expanded concepts of print for children. In addition, parents involved in family literacy programs interact with their children around print three times more often than parents not in any literacy program (Padak et al., 2002). Despite these outcomes, there is no established consensus on what the best practices are and what to teach parents.

In a study spanning a decade of family literacy programs in the United States, Padak et al. (2002) showed programs vary in many ways, but the common goal is to help parents learn and realize that they are capable of teaching their children. Despite a substantial amount of research on increasing parent involvement in literacy related behaviors (Barbour, 1999; Cook-Cottone, 2004; Dever & Burts, 2002; Faires, 2000; Handel, 1999; Jordan et al., 2000; Morrow and Young, 1997; Padak et al., 2002; Sénéchal, 2006), there is no consensus on best practices. Few family literacy programs that address the concerns or effects of particular ethnic or cultural groups have been documented. Padak et al. suggested that although certain curricular and instructional suggestions arise from these few studies, additional research is needed. Padak et al. (2002) concluded that is important for parents to receive materials for at-home use, and that home literacy experiences are important.

In a meta-analysis of 14 intervention studies with control groups, Sénéchal (2006) compared the effects of different parental interventions on children's reading acquisition. Interventions used in the studies included training parents to teach their children to read, to listen to their children read, and to read aloud to their children. Training parents to teach their children was more effective than both other forms of intervention on children's reading acquisition. However, numerous parents would not attend training sessions due to feeling uncomfortable with

their own reading ability, lack of belief that it is their responsibility to teach their children how to read, or inability to attend meetings. One of the predominant limitations reported in Morrow and Young's (1997) study of a family literacy program with a predominately at-risk population was in getting parents to attend meetings.

One of the studies included within Sénéchal's (2006) meta-analysis showed that training parents to read to their children helped to improve their children's language and increased the amount of home literacy activities. Using a low risk sample of 248 kindergarten students and their families, Jordan et al. (2000) assessed the effects of teaching parents to use scripted, structured activities when they read to their children. Using a battery of language and literacy tasks, Jordan et al. showed that the intervention group made greater gains in vocabulary, story comprehension, and story sequencing tasks during kindergarten than the control group. Although attendance in the instructional meetings was considered high in this predominately middle income, English speaking population, only 60% of the parents attended all the meetings. Families with fewer resources may encounter more obstacles to attending meetings. However, even in this low risk population, there is room for improvement in the level of parental participation.

Another study included within Sénéchal's (2006) meta-analysis was Faires' (2000) small study with eight first grade students. Parents attended training sessions and the children received *books in bags* which included materials based on the Reading Recovery model in which the parents were trained. Training was held three times per week for five weeks. Significant differences were found between the experimental and control groups in the amount of growth in their reading level, while differences in level of parent involvement were apparent between students. Differences between parent interest and commitment to the program affected these

outcomes. Faires highlighted the use of literacy bags as a way to reach all homes and involve all parents regardless of ability to participate in school based events. Literacy bags used in other studies commonly include suggestions and activities with books used to promote literacy development and simultaneously educate parents (Barbour, 1999; Dever & Burts, 2002). Rather than sending home assignments to complete, literacy bags offer parents more innovative guidance on ways to read with their children and become more actively involved in the reading process. Teachers and administrators consider the use of literacy bags an effective strategy for involving all families despite the scant systematic documentation of the impact of literacy bags. The use of literacy bags may impact parental attitudes and behaviors and encourage parental interest and support. Hence, parents will likely be empowered to increase literacy activities in the home, which ultimately may improve children's literacy skills.

Cultural and linguistic differences often place children at academic risk (Pransky & Bailey, 2003). Parents can reduce some of the challenges their children face by contextualizing information with their children. Cook-Cottone (2004) studied a culturally diverse population of struggling readers in grades 3-5 and showed that training parents to be mentors for their children enabled the parents to bridge the cultural gap between school and home for their children by connecting new information to their own experiences. Parents created examples and meanings for their children that were tied to familial and cultural experiences, which was something teachers were not able to do as effectively (Cook-Cottone, 2004). Padak et al. (2002) posited that family literacy programs contribute to language development and expanded concepts of print for children. In addition, Padak et al. found that parents involved in family literacy programs interacted with their children around print three times more often than parents not in any literacy program. This outcome established that family literacy programs are important and affirm the

vital role parents have in the home literacy environment and through the use and content of literacy bags, diverse populations of parents may feel more confident and become more actively involved.

Creating a **program that works.**

Strong literacy environments are essential since these environments affect children's literacy learning across differences in income, education, and language (Christian et al. 1998; Gillanders & Jiminez, 2004; Payne et al., 1994; Purcell-Gates, 1996). The goal of family literacy programs is to increase home literacy experiences to benefit children's literacy development. This must be done in a way that respects parents' beliefs and enable parents to draw on their skills and experiences. Research shows that asking parents to develop a new set of skills is not necessary to help their children learn. Instead, parents should be helped to recognize their own strengths as teachers of literacy. Guidelines for family literacy programs suggested by the International Reading Association (IRA, 2007) state that family literacy programs should operate from a strength perspective, in which " all families are viewed with respect and as possessing funds of knowledge, or strengths that can enrich their children's literacy learning and success in school" (p. 37). In addition, the IRA offered the following suggestions for adopting a strength perspective. Specifically IRA posits that family literacy programs will be most productive when these are followed:

- Show respect for family members' roles, abilities, and skills, and find ways to build on these to support children's learning;
- Base programs on the premise that all children and families deserve access to rich supplies of text;

- Meet families “where they are” and acknowledge “where they have been” by building on family and community strengths (funds of knowledge);
- View families as children’s first teachers through-out their school years (p. 37).

A review of the research shows that family literacy programs vary in many ways. Certain programs have had success in teaching parents new skills, while others send materials home. Some programs have tried a combination of these approaches in an effort to increase home literacy interactions. It is important to consider that the goal is to increase parental involvement and to help parents recognize the importance of home literacy activities. One method may be to increase parents’ confidence as teachers of literacy so that they engage in more literacy activities with their children. Notably, none of the family literacy programs reviewed directly assessed the effects of the interventions on parental self-efficacy beliefs as teachers of literacy. This is important since parents who strongly believe in their abilities as teachers of literacy will ultimately engage in more home literacy activities (Bennett et al,, 2002; DeBaryshe, 1995; Weigel et al., 2006). The current study examines how parental self-efficacy is affected by a family literacy activity.

Parents of successful and non successful students show few differences in their aspirations for their children’s success in school (Edwards, 2007). According to Edwards (2007), the difference between these parents lies in their instrumental knowledge, which includes what is expected of them and what is required to accomplish their goals. Therefore, a primary goal of family literacy programs is to help parents build on their existing knowledge and learn that their role is important. Parents should recognize that regardless of their education, income, and personal history, the home literacy experiences they provide will impact their children’s literacy learning. Parents from different cultural backgrounds sometimes lack confidence in their abilities

in helping their children learn literacy skills (Xu, 1999). For that reason, family literacy programs need to empower parents to have confidence in themselves and know "…that they can be a critical motivational and structural support for their children's academic success" (Edwards, 2007, p.61). To accomplish this goal, Morrow, Kuhn, & Schwanenflugel (2006) suggested that a family literacy program should be easy to use, the content should be non-threatening, and the activities should be enjoyable. These three criteria are fulfilled solidly by incorporating the arts, which has already been used with great success to foster children's literacy development and will be the basis for this study.

Incorporating the arts in literacy development.

Research has shown that by reaching across sign systems, incorporating the arts has made a notable contribution to children's literacy learning. The literature suggests that using the arts is a way that children become more actively involved in the learning process, broadening their interests and promoting a richer, deeper learning experience (Berghoff, 2001; Carger, 2004; Ehrenworth, 2003; Heymsfeld, 1997; Johnson, 2007; Walker, 2000). Unlike other methods used to instruct, the arts extend naturally across cultural, language, and social differences, thereby enabling students to join together, communicate ideas, create their own experiences, and use their imaginations (Carger, 2004). Bandura (1989) posited that the most powerful ways to increase self-efficacy are emotional arousal and positive experiences. Accordingly, the arts have a special value for promoting students' engagement with literacy. By providing positive experiences that elicit emotional arousal, literacy experiences with art increase children's efficacy as learners (Soundy & Qiu, 2006). In the same way, incorporating the arts with literacy may increase parent's self-efficacy as teachers of literacy and may be more accessible to parents than other more traditional ways.

The arts are especially linked to comprehension, which means they have long term impact on literacy. The arts provide an invaluable way to foster children's reading achievement since the ability to comprehend stories and derive meaning is considered necessary to become a successful reader (Neuman & Roskos, 2005; Richardson et al., 1993). Neuman and Roskos (2005) posited, "It is the higher order thinking skills, knowledge, and dispositional capabilities, encouraging children to question, discover, evaluate, and invent new ideas, that enable them to become successful readers" (p. 2). Therefore, to help derive meaning from stories, a common practice used in many elementary classrooms is for children to draw a picture of the story they have heard or read. Students must think about the setting and characters as well as decide on a particular scene in order to accomplish this task. For example, one technique is called sketch to stretch (Hoyt, 1992) in that the students are asked to create a sketch after listening to a story, a poem or a nonfiction selection. As they work on their sketch the students process the information internally individually in their own way (Hoyt, 1992). In another more recent exploration with sketches using a project called *picture power*, Soundy and Qiu (2006) incorporated 20 minutes of sketch time after the kindergarten students were read to from picture books. They found that the children participated with ease and confidence while the drawings helped to heighten their emotions and imaginations by allowing them to find their own expression and to communicate their ideas.

There is substantial evidence from the classroom that the arts allow children to make deeper meaning and form personal associations with text. When children create visual interpretations of stories that have been read, they often engage in extended conversations about their picture and how it relates to the story. Hoyt (1992) stated:

> Comprehension cannot be fostered by transmitting information from page to the children's heads or by drilling the children with questions. Unlike asking specific questions which may feel rote, parents may form personal associations and converse more freely with their children during literacy activities that incorporate art. Learning occurs when one creates a personal interpretation. (p. 584)

Berghoff (2001) reported that one teacher helped students make connections of their life experiences by using graphic images as signs that have meaning. The use of these images in the classroom enabled the students to share their interests and background information. The students were able to explore and express their ideas more easily and freely and as a result of this, there were increased opportunities for literacy development. Similarly, parents may feel more comfortable in a family literacy program that incorporates the arts since the arts allow for freedom of expression that fosters deeper personal connection. This openness and flexibility offers multiple entry points into literacy that may facilitate parents' involvement and encourage them to assume a more active role.

Through the arts, students enjoy freedom of expression where every effort is valued and it is not possible to make mistakes. Children are free to communicate and express themselves in a visible and healthy way without feeling the boundaries of the rules of language. Many adults also feel more comfortable showing rather than telling. People may find themselves in situations where it is easier to simply express their thoughts or ideas in a drawing. This freedom of expression may be accomplished by incorporating art in family literacy programs.

Positive experiences and emotional arousal are among the most powerful ways to increase self-efficacy (Bandura, 1989). Through involvement with the arts, children process information internally in their own way and are able to find their own expression and derive their

own meaning (Berghoff, 2001; Hoyt, 1992; Soundy & Qiu, 2006). This incorporation of the arts facilitates comprehension development. The use of art in family literacy programs should not only create positive experiences and heighten emotional arousal, thereby increasing parents' self-efficacy, but also the use of the arts should aid children's comprehension.

Conclusion

The years before formal schooling are years of teachable moments that need to be captured by parents, for as Bennett et al. (2002) noted, "the most important aspect of emergent literacy is that it is a process--one that continues and grows over time" (p. 296). Since schools are age graded not skill graded, children without emergent literacy skills will be delayed and the gap will continue to grow between children's skills and the demands of the curriculum (Whitehurst & Lonigan, 1998). I have reviewed many influences on emergent literacy skills in this paper (i.e., home literacy environment, parents' level of income and education, parental beliefs). It is important to know that high literacy environments make a difference in children's literacy development, regardless of parental education level (Payne et al., 1994; Christian et al., 1998; Purcell-Gates, 1996). The home literacy environment is important and the quality of each literacy interaction has an effect on children's emergent literacy skills (Levy et al., 2006). As their first teachers, parents are the most influential people in their children's lives. Their beliefs, values, and expectations have consequences for what their children do, and what and how their children learn (DeBaryshe et al., 2000). Parents are the most vital part of the home literacy environment. When parents believe in their own ability as teachers, they create their own curriculums for their children, teaching what they deem important and what they ultimately feel is their responsibility. Parents who have high efficacy beliefs as teachers are more likely to be involved in their children's learning (Hoover-Dempsey & Sandler, 1997, 1995). Consequently,

parent's efficacy beliefs are directly related to their involvement in their children's early literacy learning.

Many parents cannot and certain ones will not commit to being at the school for meetings or volunteering in the classroom for a variety of reasons. Contact with teachers appears to decrease as children transition from preschool to kindergarten. In addition, Edwards and Danridge (2001) posited that one of the main reasons for teachers' limited success in involving parents from diverse backgrounds is their reliance on traditional methods of parent teacher interactions. However, these more traditional methods such as planned conferences or informational handouts are limiting since they do not consider differences in family circumstances and beliefs. It is important for schools to implement more sensitive ways to reach parents and to establish a way to facilitate parental involvement by providing increased opportunities that reach out to parents, and reach across sign systems to enhance accessibility for parents with diverse personal histories and cultures. Edwards and Danridge noted, "Schools must develop creative strategies that are culturally sensitive to parents" (p. 270). Rather than always asking parents to come to school, schools need to reach out and go to the parents. One way to do this is by using literacy bags. Barbour (1999) indicated, "Home literacy bags appear to 'reach' all families even those that typically do not participate in school based events" (p. 71). The premise of the current study is that it is also important to consider what is being included in these bags.

The arts have been shown to be successful in engaging diverse children in early literacy (Carger, 2004; Ehrenworth, 2003) by broadening their interests and promoting a richer, deeper learning experience (Berghoff, 2001; Carger, 2004; Ehrenworth, 2003; Heymsfeld, 1997; Johnson, 2007; Walker, 2000). The arts have a positive impact on children's language and literacy development (Carger, 2004). Incorporating the arts into home literacy bags may be a

way to empower parents and increase their beliefs in themselves as teachers of literacy. Parents may choose to be involved in their children's early literacy development if they believe they can be successful (Hoover-Dempsey & Sandler, 1995). The arts may be a valuable way to provide the positive experiences that are necessary to increase parents' efficacy beliefs as teachers of early literacy (Bandura, 1986, 1989).Literacy experiences with art may increase parents' beliefs in themselves through positive experience and emotional arousal (Bandura, 1989). In addition, parents with high levels of self-efficacy beliefs are more likely to provide richer home literacy environments for their children (Coleman & Karraker, 1998).

Parents from different cultural experiences or those with limited schooling may be more comfortable using different modalities. Since these families represent an important and increasingly prominent segment of the population, it is important to address their strengths and concerns. It is important to identify effective interventions that reach across cultures and sign systems. Such efforts that incorporate literacy bags are promising. The present study explores whether including different modalities will increase the appeal of the bags, particularly in light of the evidence of cross modalities used to increase learning. Edwards and Danridge (2001) noted, "When schools acknowledge the range in dispositions, backgrounds, experiences, and strengths among families, efforts to establish sound home-school collaborations are more successful" (p. 270).

In the proposed study, I will explore a program with parents that incorporates the arts into literacy outreach that may not only elicit greater involvement, but may also increase parents' efficacy beliefs as teachers of early literacy (Greene, 2008). This experimental study will include parents and their children in kindergarten through second grade in a private school in New York City. While the study population is not typically involved in literacy interventions, the arts

should be beneficial for literacy leaning even within this population. To analyze the effect of using the arts in literacy on parental beliefs, once per week for four weeks parents will receive either a book or a book with art supplies to share with their child preceded by and followed by questionnaires and surveys. In this way, I will explore the effects of including art in a literacy outreach program on parents' beliefs that have a strong impact on the home literacy environment.

Hypotheses

The arts have a special value in promoting students' engagement with literacy by providing positive experiences that elicit emotional arousal (Berghoff, 2001; Carger, 2004; Ehrenworth, 2003; Heymsfeld, 1997; Johnson, 2007; Walker, 2000). It is predicted that using art will increase parents' efficacy as teachers of literacy and will be a more accessible way to intervene and involve parents in their children's literacy development than other more traditional ways. It is predicted that the inclusion of the arts will have a positive impact on parents' efficacy beliefs about emergent literacy as measured by the efficacy subscale score of the PRBI (DeBaryshe & Binder, 1994). Bandura (1989) posited that one of the most powerful ways to increase self-efficacy is through emotional arousal and positive experiences. Therefore,

Hypothesis 1. Parents who receive literacy bags that include an art activity will show greater gains in self-efficacy.

Associations have been found between parental self-efficacy beliefs about emergent literacy and the supports that parents provide for literacy in the home environment. DeBaryshe (1995) found that parents' literacy beliefs were strongly associated with literacy activities they produced for their children and in Weigel et al. (2006), high scores on the PRBI (DeBaryshe & Binder, 1994) were positively correlated with home literacy activities. More specifically,

Coleman and Karraker (1998) found that high parenting self-efficacy was strongly related to the environment parents provide for their children. Therefore,

Hypothesis 2. Parents' efficacy beliefs about emergent literacy as measured by the efficacy subscale score of the PRBI will be positively related to the supports that they provide in the home as measured by the Home Literacy Environment Scale (Griffin & Morrison, 1997).

Strong associations have been found between parental literacy related beliefs and the home literacy activities parents provide for their children and have been found to be predictive of the quality of mother-child joint book reading and the quality of the home literacy environment (Bingham, 2007; DeBaryshe, 1995; DeBaryshe & Binder, 1994). Therefore,

Hypothesis 3. Parental literacy beliefs about high quality book reading interactions, as measured by the Literacy Beliefs Questionnaire (Bingham, 2007), will be positively related to the supports that parents provide in the home as measured by the Home literacy Environment Scale (Griffin & Morrison, 1997).

The arts have proven to be an integral component to children's language and literacy development (Johnson, 2006) and have been successful in engaging diverse children in early literacy (Carger, 2004; Ehrenworth, 2003) by broadening their interests and promoting a richer learning experience (Berghoff, 2001; Carger, 2004; Ehrenworth, 2003; Heymsfeld, 1997; Johnson, 2007; Walker, 2000). Therefore,

Hypothesis 4. Using the arts will increase children's interest as measured by the Children's Reading Interest Questionnaire (Weigel et al., 2006) that will be given as a pretest and posttest.

Associations have been found between parental beliefs about emergent literacy and parents' level of school involvement. In Bennett et al. (2002) significant correlations were found

between parental involvement with school including frequency of contact and the reading beliefs of parents. Therefore,

Hypothesis 5. Parents' beliefs about emergent literacy as measured by the PRBI will be positively related to parents' level of involvement and contact with the school as measured by the Family Involvement in School Questionnaire (Dearing et al., 2006).

Several studies with samples using diverse backgrounds found positive associations between children's literacy interest and parents' literacy and self-efficacy beliefs (DeBaryshe & Binder, 1994; Weigel et al., 2006) and the home literacy environment (Frijters et al., 2000; Payne et al., 1994). Therefore,

Hypothesis 6. Using Weigel et al.'s (2006) three parent-response questions on children's literacy interest, level of involvement, parents' self efficacy beliefs as measured by the efficacy subscale score of the PRBI, and parents' literacy beliefs about high quality book reading interactions, as measured by the Literacy Beliefs Questionnaire (Bingham, 2007) will predict children's interest in book reading in a multiple regression.

It has been found that parents within particular societies or cultures different from the mainstream are guided by beliefs of childrearing practices that are derived from aspects of that culture and these parents may not believe in their ability or believe that it is their job to facilitate their children's literacy development (Dever & Burts, 2002; Sigel & McGillicuddy-De Lisi, 2002). Therefore,

Hypothesis 7. Parents whose early educational experiences differ from that of their children will report lower self-efficacy beliefs as measured by the efficacy subscale score of the PRBI as well as lower literacy beliefs about high quality book reading interactions as assessed by the Literacy Beliefs Questionnaire.

Chapter 3: Method

Participants

The participants consisted of children and their parents enrolled in kindergarten, first grade, and second grade at a private day school in New York City with middle to upper class population and only eight lower class students receiving financial scholarships. There were no English language learners. One hundred and nine (109) parental consent forms were returned. Random assignment within each class to either experimental (i.e., art) or control (i.e., no art) was conducted separately for males and females. Though 109 parents signed the consent forms and completed the pretests, only 70 participants (i.e., 42 males, 28 females), completed both the pretest and posttests. Results are based on the 70 completed surveys. Demographic characteristics are compared between those parents who completed all the surveys and those who completed the pretests only. The majority of parents (i.e., 93%) have college degrees or higher and speak English only (i.e., 78%). To examine educational history, parents were asked whether their first educational experiences occurred outside of the United States. While just 28% of the parents began their elementary school education outside of the United States, 44% of the parents' parents (i.e., the children's grandparents) were educated in the elementary years outside of the United States.

The 70 student participants (i.e., 24 in kindergarten, 29 in first grade, 17 in second grade) were randomly assigned within classrooms separately by gender. The control group consisted of 37 participants, and 33 were in the experimental group. No significant differences were found between groups on all the demographic characteristics included in the survey.

Measures

Weekly Parent Evaluation Form

Dever and Burts' (2002) Weekly Parent Evaluation Form was included with the literacy bag sent home each week with the student (Appendix A). Parents were asked to return the literacy bag and the evaluation form the following week. The evaluation form assesses the degree to which both children and parents enjoyed the book and if they read the book more than once. The evaluation form was scored on a Likert scale, and parents indicates the degree (i.e., no, somewhat, yes) to which they enjoyed the book and if they reread the book (i.e., no, once or twice, three or more times). The families doing the art activity were asked an additional question indicating the degree of their enjoyment of doing the art activity which was also scored on a Likert scale (i.e., no, somewhat, yes). The range of scores for the control group was zero to 4 and the range of scores for the experimental group was zero to 6. The parent evaluation form has been used in previous research with family literacy bags to gather insight on parental experiences (Dever & Burts, 2002). This parent evaluation of activities reflected the readings sent home.

The Demographic and Background Questionnaire

The Demographic and Background Questionnaire is a 6-item researcher designed questionnaire about family language and educational experiences (Appendix B). The items are either multiple choice or 1-word answers. Questions pertain to language used in the home and educational level of the parent. In addition, parents were asked whether they were educated within the United States or in another country to assess possible differences in beliefs of parents with different educational experiences. Educational experience outside of the United States was scored from 0 to 3 based on responses to questions 3, 4, and 5 of this questionnaire.

Family Involvement in School Questionnaire

The Dearing et al. (2006) Family Involvement in School Questionnaire is an 8-item dichotomous (i.e., yes = 1 / no = 0) questionnaire that assesses involvement at school (Appendix C). Scores range from zero to 8, with higher scores indicating higher levels of involvement. For example, parents were asked if they visit their child's classroom and if they volunteer in their child's classroom. It has been used reliably (i.e., Cronbach's α = .65 to .73) in previous research to indicate parental level of involvement in school (Dearing et al., 2006). The questionnaire provided important information on the levels of parental involvement which was examined in relation to their beliefs.

Home Literacy Environment Scale

The Home Literacy Environment Scale from Griffin and Morrison (1997) is a 9-item questionnaire that assessed aspects of the home environment and routines that may contribute to children's early literacy development (Appendix D). Parents were asked questions related to literacy practices and materials that include, for example, number of books the child owns, the number of magazines, and how often parents read to the child and also to themselves. Items were scored on a 0 to 2 point scale (i.e., 2 = more positive literacy environment for each item) with high scores reflecting a higher quality literacy environment. Scores will range from zero to 17. In research with kindergarten and second grade children, this index uniquely predicted literacy skills including receptive vocabulary, general knowledge, and reading recognition reliably at kindergarten; and continued to account for unique variance for general knowledge and reading recognition in second grade (Griffin & Morrison, 1997). The scale has solid psychometric properties. Interitem reliability for the measure was determined to be satisfactory (i.e., Cronbach's α = .74). The scale has previously been used with diverse populations of elementary

school students between the ages of four and five years old (Griffin & Morrison, 1997; Christian et al., 1998).

Parent Reading Belief Inventory

The Parent Reading Belief Inventory (PRBI) is a self-efficacy subscale from DeBaryshe & Binder (1994) that assessed parents' beliefs about their efficacy as teachers of literacy (Appendix E). The PRBI is a 42-item questionnaire designed to measure parents' beliefs about reading aloud to preschool age children and the extent to which parents endorse tenets consistent with current models of environmental influences on language development and developmentally appropriate teaching practices in emergent literacy. Given the purpose of this study, teaching efficacy beliefs are of particular interest. Therefore, the efficacy subscale which consists of 9 items was selected to be used separately. In an email dated April 8, 2009, DeBaryshe indicated that using this subscale appears a reasonable approach. For each item parents were asked to choose the level of agreement ranging from 1 = strongly disagree to 5 = strongly agree. Total scores will range from 9 to 36. High scores indicated that parents have strong beliefs in themselves as teachers of literacy and that they have a strong sense of responsibility to teach their children literacy. The subscale was found to have acceptable internal consistency with a coefficient alpha of .73 (DeBaryshe & Binder, 1994). The PRBI has been used in previous research to assess associations between parental literacy beliefs and parents' literacy related behaviors (DeBaryshe & Binder, 1994; Weigel et al., 2006).

Literacy Beliefs Questionnaire

Bingham (2007) introduced the Literacy Beliefs Questionnaire, a 10-item assessment of more general parental literacy beliefs (Appendix F). The items pertain to parent's beliefs about book reading interactions (i.e., how parents should read to their children). Parents rated the

degree to which they endorse each item on a 6-point scale ranging from 1 = strongly disagree to 6 = strongly agree. For each family, potential scores range from 10 to 60. Higher scores indicated stronger beliefs on parents' influence on their child's literacy development. Interitem correlation was found to have good internal consistency (α = .83). This questionnaire has been used with parents of preschool aged children to examine connections between parents' literacy related beliefs, shared book reading interactions, and the development of children's early literacy skills (Bingham, 2007).

Children's Reading Interest Scale

The Children's Reading Interest Scale used by Weigel et al. (2006) is a 3-item questionnaire designed to address children's interest in reading. Parents were asked questions related to their children's interest in reading books using a 1 - to 5-point Likert scale (i.e., 1 = hardly ever to 5 = two or more times a day). For example, parents were asked how often their children look at books by themselves. For each family, scores ranged from 3 to 15, with higher scores indicating more child interest in reading (Appendix G). Interitem correlation for this scale was found to have good internal consistency (α = .66). This response scale has previously been used with parents of preschool aged children to examine associations between parents' literacy beliefs and children's literacy development (Weigel et al., 2006). Table 1 shows the measures, sources, sequence time of administration in protocol, and range of scores of the assessments.

Table 1

Measures and Use of Questionnaires and Evaluations

Measures	Pretest	Posttest	Source	Number of Items	Range of Scores
Weekly Parent Evaluation Form			Dever & Burts, 2002	Control Group: 2 Experimental Group: 3	Control Group : 0-4 Experimental Group: 0-6
Demographics questionnaire	√		Researcher designed	6	Educational experience: 0-3 based on questions 3, 4, 5
Family Involvement in School Questionnaire	√		Dearing et al., 2006	8	0-8
Home Literacy Environment Scale	√		Griffin & Morrison, 1997	9	0-17
Parent Reading Belief Inventory (Self-efficacy)	√	√	DeBaryshe & Binder, 1994	9	9-36
Literacy Beliefs Questionnaire	√	√	Bingham, 2007	10	10-60
Children's Reading Interest Questionnaire	√	√	Weigel et al., 2006	3	3-15

Procedures

After obtaining approval from The CUNY Graduate Center IRB, a letter describing the study and asking for consent was sent to the families of children enrolled in kindergarten, first grade, and second grade (Appendix H). Even though the parents were asked their permission to participate, the children were asked independently if they want to participate. I asked the children by stating the following. "Hi, I am Ms. Kadish and I am working on a research study that involves you and your parents. You are being asked to read a book that will be sent home with you and maybe do something after with your parents. If you would like to do this please say yes or no." In addition to the letter, children were be sent home with the demographic / background

questionnaire, Family Involvement in School Questionnaire (Dearing et al., 2006), the Home Literacy Environment Scale (Griffin & Morrison, 1997), the efficacy subscale of the PRBI (DeBaryshe & Binder), the Literacy Belief Questionnaire (Bingham, 2007), and a questionnaire on children's interest (Weigel et al., 2006). The letters and questionnaires were sent home with each child in a sealed envelope. Parents were given one week to return the items to the school. A return by date was marked clearly on the outside of each envelope. If envelopes are not returned by the set date, a reminder note was sent home with each student to remind parents to return them the next day (Appendix I). Three extra days were given for parents who may have forgotten.

Class rosters were obtained and random assignment to either treatment (i.e., art activity with book) or control (i.e., book only) condition within each class was conducted separately for consented males and females. When the questionnaires and scales are returned, the books in bags were sent home once a week for four weeks. In the treatment condition children received a book to take home including art supplies (i.e., two sheets of plain paper and a pack of four crayons which contained a red, a yellow, a blue and a green crayon) and a welcome letter instructing parents to read the book with their child and create a picture with their child after reading the story. The children in the control group were given the same book with a welcome letter providing instructions to parents to read with their children as they are accustomed, but no art supplies were provided.

To maintain confidentiality, the child's name was only put on the outside of each envelope. The *bags* used were large envelopes. There were no names on the questionnaires, scales, and forms. Instead, each child was assigned a number that will appear on all the questionnaires and scales, and forms sent home. For confidentiality, when the children returned

the forms to school in the envelopes, the envelopes were immediately discarded.

Four different culturally neutral books were chosen from the Children's Choices booklist of children's favorite books that IRA and the Children's Book Council compiled in 2007 and 2008. For appropriate age level, books were chosen from among the favorites of kindergarten to second grade students. Two fiction and two non-fiction books were chosen to balance preferences that children may have for book content and story topic. The parents were able to keep one book when the study was completed as incentive for participating in the study.

The teacher asked the students to take the books in bags home on Fridays and were asked to return them the following Wednesday. The teacher reminded the students on Tuesday to bring the books in bags back to school the following day. If the students did not return the books in bags on that day, the teacher reminded them again on Wednesday and if needed on Thursday. The bags for the first week contained a welcome letter to introduce the book and provided instructions (Appendix J), a book, or a book with art supplies for the experimental group, and the weekly evaluation form. The following two weeks, children were sent home with the welcome letter, the books, with or without the art supplies depending on condition and the weekly evaluation form. In the fourth week, literacy bags for both conditions also contained the PRBI efficacy subscale (DeBaryshe & Binder, 1994), the Literacy Belief Questionnaire (Bingham, 2007), and the Children's Reading Interest Questionnaire (Weigel et al. 2006). These served as posttests. The welcome letter that was sent home with the fourth book asked parents to return the literacy bags and the surveys the following week. If parents did not return the surveys by the requested date, a reminder note was sent home with the children requesting that all books and surveys be returned the next day. Table 2 shows the sequence of materials for both the experimental and control groups.

Table 2

Sequence of Activities

	All Students	
Week 1	o Consent form o Demographic / background questionnaire o Family Involvement in School Questionnaire (Dearing et al., 2006) o Home Literacy Environment Scale (Griffin & Morrison, 1997) o Self-Efficacy subscale of the PRBI (DeBaryshe & Binder, 1994) o Literacy Belief Questionnaire (Bingham, 2007) o Children's Reading Interest Questionnaire (Weigel et al. 2006)	
	Experimental Group	**Control Group**
Week 2	o Welcome letter o Book with art supplies o Weekly Parent Evaluation Form (Dever & Burts, 2002)	o Welcome Letter o Book o Weekly Parent Evaluation Form (Dever & Burts, 2002)
Week 3	o Welcome letter o Book with art supplies o Weekly Parent Evaluation Form (Dever & Burts, 2002)	o Welcome Letter o Book o Weekly Parent Evaluation Form (Dever & Burts, 2002)
Week 4	o Welcome letter o Book with art supplies o Weekly Parent Evaluation Form (Dever & Burts, 2002)	o Welcome Letter o Book o Weekly Parent Evaluation Form (Dever & Burts, 2002)
Week 5	o Welcome letter o Book with art supplies o Weekly Parent Evaluation Form (Dever & Burts, 2002) o Self-Efficacy subscale of the PRBI (DeBaryshe & Binder, 1994) o Literacy Belief Questionnaire (Bingham, 2007) o Children's Reading Interest Questionnaire (Weigel et al.).	o Welcome Letter o Book o Weekly Parent Evaluation Form (Dever & Burts, 2002) o Self-Efficacy subscale of the PRBI (DeBaryshe & Binder, 1994) o Literacy Belief Questionnaire (Bingham, 2007) o Children's Reading Interest Questionnaire (Weigel et al.).

The arts have a special value in promoting students' engagement with literacy by providing positive experiences that elicit emotional arousal (Berghoff, 2001; Carger, 2004; Ehrenworth, 2003; Heymsfeld, 1997; Johnson, 2007; Walker, 2000). It was predicted that using art would increase parents' efficacy as teachers of literacy and would be a more accessible way

to intervene and involve parents in their children's literacy development than other more traditional ways. It was predicted that the inclusion of the arts will have a positive impact on parents' efficacy beliefs about emergent literacy as measured by the efficacy subscale score of the PRBI (DeBaryshe & Binder, 1994). Bandura (1989) posited that one of the most powerful ways to increase self-efficacy is through emotional arousal and positive experiences.

Hypothesis 1. Parents in the experimental condition (i.e., literacy bags that include an art activity) will report greater gains in self-efficacy beliefs than will parents assigned to the control condition (i.e., literacy bags that do not include an art activity).

The statistical analysis for Hypothesis 1 could involve any of several analytic alternatives. Given that the self-efficacy measure (i.e., the efficacy subscale of the PRBI) was administered at two, and only two intervals, an independent group's *t* test of the change, or difference scores (i.e., posttest, pretest) would be the simplest of these alternatives. A second alternative would be a repeated measures analysis of variance with one *between subjects* factor (i.e., experimental vs. control), and one *within subjects* factor (i.e., *time*). The test of the interaction between the *grouping* factors (i.e., experimental vs. control) and the time factors (i.e., pretest vs. posttest) corresponds to the *t* test on the difference scores outlined above as the first analytic alternative. While this interaction test corresponds to the focal question under investigation (i.e., is there evidence of differential group change over time in self-efficacy), the main effects tests of the grouping factor and the time factor provide additional information not available using the first alternative. A limitation of both of these alternatives is that neither accommodates missing data. If a respondent fails to provide either a pretest self-efficacy score or a posttest self-efficacy score or both, then that subject will be deleted from the analysis. However, the same repeated measures analysis of variance can be conducted using a mixed

models approach which can accommodate missing data--under the assumption that the data are missing at random (MAR)--without deleting subjects who provide less than complete data.

Associations have been found between parental self-efficacy beliefs about emergent literacy and the supports that parents provide for literacy in the home environment. DeBaryshe (1995) found that parents' literacy beliefs were strongly associated with literacy activities they produced for their children, and Weigel et al. (2006) found high scores on the PRBI were positively correlated with home literacy activities. More specifically, Coleman and Karraker (1998) found that high parenting self-efficacy was strongly related to the environment parents provide for their children. Therefore,

Hypothesis 2. Parents' self-efficacy beliefs about emergent literacy as measured by the efficacy subscale score of the PRBI will be positively related to the support that they provide in the home as measured by the Home Literacy Environment Scale.

The statistical analysis for Hypothesis 2 involved using Pearson to correlate self-efficacy beliefs and support for reading development using the pretest versions of each of these measures to eliminate possible confounding effects of the intervention,

Strong associations have been found between parental literacy related beliefs and the home literacy activities parents provide for their children. These relationships have been found to be predictive of the quality of mother-child joint book reading and the quality of the home literacy environment (Bingham, 2007; DeBaryshe, 1995; DeBaryshe & Binder, 1994). Therefore,

Hypothesis 3. Parental literacy beliefs about high quality book reading interactions, as measured by the Literacy Beliefs Questionnaire will be positively related to the reading supports parents provide in the home as measured by the Home Literacy Environment Scale.

Again, in order to eliminate possible confounding effects of the intervention, the statistical analysis for Hypothesis 3 involved using Pearson to correlate parental literacy beliefs about high quality book reading interactions and the degree of reading support in the home provided by the parents using the pretest versions of each of these measures.

The arts have proven to be an integral component to children's language and literacy development (Johnson, 2006) and have been successful in engaging diverse children in early literacy (Carger, 2004; Ehrenworth, 2003) by broadening their interests and promoting a richer learning experience (Berghoff, 2001; Carger, 2004; Ehrenworth, 2003; Heymsfeld, 1997; Johnson, 2007; Walker, 2000). Therefore,

Hypothesis 4. Parents in the experimental condition will report that their children exhibit greater change in their interest in reading than will the children of parents assigned to the control condition.

The statistical analysis for Hypothesis 4 involved assessing the effect of the intervention. A mixed models approach to repeated measures analysis of variance will be used to test this hypothesis. Again, the focal effect under study corresponds to a test of the interaction between treatment group membership and time.

Associations have been found between parental beliefs about emergent literacy and parents' level of school involvement. Bennett et al. (2002) found significant correlations between parental involvement with school including frequency of contact and the reading beliefs of parents. Therefore,

Hypothesis 5. Parents in the experimental condition will report greater enjoyment and rereading of the book with their child, as recorded by the weekly parent Evaluation Form, than will parents assigned to the control condition.

The statistical analysis of Hypothesis 5 also involved assessing the effect of the intervention. For this hypothesis, there are four, rather than two assessments available. A mixed models approach to repeated measures analysis of variance was used to test this hypothesis that focuses on a test of the interaction between treatment group membership and time.

Several studies with samples using diverse backgrounds found positive associations between children's literacy interest and parent's literacy and self-efficacy beliefs (DeBaryshe & Binder, 1994; Weigel et al., 2006) and the home literacy environment (Frijters et al., 2000; Payne et al., 1994). Therefore,

Hypothesis 6. Parents' self-efficacy beliefs about emergent literacy as measured by the efficacy subscale score of the PRBI will be positively related to the parents' level of involvement and contact with the school as measured by the Family Involvement in School Questionnaire.

In order to eliminate possible confounding effects of the intervention, statistical analysis for Hypothesis 6 involved using Pearson to evaluate parental self-efficacy beliefs about emergent literacy at pretest and the parents' level of involvement and contact with the school which is also administered only at Time 1.

It has been found that parents within particular societies or cultures different from the mainstream are guided by beliefs of childrearing practices that are derived from aspects of that culture and these parents may not believe in their ability or believe that it is their job to facilitate their children's literacy development (Dever & Burts, 2002; Sigel & McGillicuddy-De Lisi, 2002). Therefore,

Hypothesis 7. Parents whose early educational experiences differ from that of their children will report lower self-efficacy beliefs as measured by the efficacy subscale score of the PRBI as well as lower literacy beliefs about high quality book reading interactions as assessed by

the Literacy Beliefs Questionnaire.

In order to eliminate possible confounding effects of the intervention, statistical analysis for Hypothesis 7 involved using Pearson to evaluate a brief measure of parents' educational experiences that differ from that of their children. I developed the measure with operational assessments of self-efficacy beliefs and literacy beliefs about high quality book reading interactions at pretest.

Chapter 4

Results

Chapter 4 presents the data analyses and results. The first set of results concerns descriptive statistics from the demographic questionnaire, initial equivalence of groups, and reliability of the measures. Following these descriptive findings, the research questions posed in the hypotheses are addressed.

Demographics

Table 3 highlights the demographics of the sample. The children of the parents who participated in this study are disproportionately male (60%, *n* = 42) and the majority of parents who participated speak only English at home (78.6%, *n* = 55). Over half of the parents attended elementary school within the United States (71.4%, *n* = 50), as did approximately half of the students' grandparents (55.7%, *n* = 39). Parents' overall level of education is very high, with the majority of parents graduating college and attending post graduate school.

Table 3

Demographics of Participants

	N	%
Female	28	40.0
Male	42	60.0
Language		
English spoken only	55	78.6
English and another language spoken	15	21.4
Elementary education of parents outside the US		
Began outside the US	20	28.6
Did not begin outside the US	50	71.4
Elementary education of grandparents outside the US		
Began outside the US	31	44.3
Did not begin outside the US	39	55.7
Parents' level of education		
Grade 12	2	2.9
Community college	3	4.3
Undergraduate	26	37.1
Postgraduate	39	55.7

In addition to descriptive statistics for the basic demographic variables reported above, these same demographics are now re-examined to determine whether the three grade groups differ on any of the variables.

As shown in Table 4, grade does not exhibit a statistically significant relationship with any of the demographic variables. For example, grade is not significantly associated with the gender of the focal child in this study ($\chi^2 = 1.68$, $df = 2$, $p = .43$), the primary language spoken at home ($\chi^2 = 2.87$, $df = 2$, $p = .24$), whether the parent began his or her education outside the United States ($\chi^2 = 0.24$, $df = 2$, $p = .89$), or the level of the parent's education ($\chi^2 = 4.60$, $df = 6$, $p = .60$).

Table 4

Comparison of Grade Groups on Demographic Variables

	Kindergarten Count (%)	First Grade Count (%)	Second Grade Count (%)
Female	9 (37.5)	14 (48.3)	5 (29.4)
Male	15 (62.5)	15 (51.7)	12 (70.6)
English spoken only	21 (87.5)	20 (69.0)	14 (82.4)
Language			
English spoken only	3 (12.5)	9 (31.0)	3 (17.6)
English and another language spoken	18 (75.0)	20 (69.0)	12 (70.6)
Elementary education of parents outside the US			
Began outside the US	6 (25.0)	9 (31.0)	5 (29.4)
Did not begin outside the US	18 (75.0)	20 (69.0)	12 (70.6)
Elementary education of grandparents outside the US			
Began outside the US	10 (41.7)	14 (48.3)	7 (41.2)
Did not begin outside the US	14 (58.3)	15 (51.7)	10 (58.8)
Parents' level of education			
Grade 12	1 (4.2)	1 (3.4)	0 (0)
Community college	0 (0)	2 (6.9)	1 (5.9)
Undergraduate	12 (50.0)	9 (31.0)	5 (29.4)
Postgraduate	11 (45.8)	17 (58.6)	11 (64.7)

Results of the Initial Equivalence of Groups at Baseline

The purpose of the next set of analyses was to evaluate whether, subsequent to random assignment, the experimental and control groups were comparable at baseline. Consent forms were distributed to participants. Those who consented were randomly assigned to either experimental or control conditions. The purpose of this analysis was to determine whether the initial equivalence of groups was maintained in families that completed. As seen in Table 5, with respect to the grades in which the children are enrolled there is no statistically significant difference between the two conditions ($\chi^2 = 2.86$, $df = 2$, $p = .24$). In fact, there are no statistical differences between the two conditions with respect to the other demographic background questions. Therefore, random assignment was successful and groups are initially equivalent with respect to these questions**.**

Table 5

Testing for Initial Equivalence of Completers at Baseline

	No Art Control Count (%)	Art Group Count (%)
Grade		
Kindergarten	11 (29.7)	13 (39.4)
First grade	14 (37.8)	15 (45.5)
Second grade	12 (32.4)	5 (15.2)

Results of Comparing Completers versus Dropouts for Differences on the Pretests

The purpose of the next set of analyses was to evaluate whether there was difference on the pretests between the experimental and control groups in the percentage of those that returned the post-tests (i.e., 70 completers) and those that did not (i.e., 39 drop-outs). As seen in Table 6, when compared across conditions, no bias was found and there was no significant difference

between groups across conditions whether in experimental or control.

Table 6

Difference Between Completers and Non Completers across Conditions

	Incomplete Count (%)	Complete Count (%)
Group		
Control: No art	17 (43.6)	37 (52.9)
Experimental: Art	22 (56.4)	33 (47.1)

However, a disproportionate amount of dropouts were in kindergarten, which suggests that having younger children were less likely to remain in the study. As seen in Table 7, 56% of the parents who dropped out had children in kindergarten while only 34% of completers had children in kindergarten. Therefore, parents of older students were more likely to remain in the study.

Table 7

Difference Between Completers and Non Completers across Grades

	Incomplete Count (%)	Complete Count (%)
Grade		
Kindergarten	22 (56.4)	24 (34.3)
First grade	14 (35.9)	29 (41.4)
Second grade	3 (7.7)	17 (24.3)

Completers and non-completers did not differ significantly on the other variables including gender of the student, language, whether students' parents or grandparents began elementary education outside of the United States, and education level of the parents.

Reliability Analyses

Several of the measures used in this investigation are multi-item measures collected from respondents at either the pretest only or at both pretest and posttest. Internal consistency reliability analyses of these measures were conducted for each of these measures. Table 8 contains the Cronbach's alpha estimates (i.e., the internal consistency reliability estimates) for each of these measures. As seen in Table 8, the reliability estimates are *low* for the two self-efficacy measures but are *serviceable* for the Children's Reading Interest measures. Importantly, the internal consistency reliability estimate for the Home Literacy Environment measure is certainly low.

Table 8

Internal Consistency Reliability Estimates on Self-Efficacy, Children's Reading Interest, and Home Literacy Environment Scale

	Cronbach's α
Self-efficacy at pretest	0.57
Self-efficacy at posttest	0.57
Children's Reading Interest at pretest	0.64
Children's Reading Interest at posttest	0.76
Home Literacy Environment at pretest	0.33

Findings Related to Hypotheses

Hypothesis 1. Hypothesis 1 states that parents in the experimental condition (i.e., literacy bags that include an art activity) will report greater gains in self-efficacy beliefs than will parents assigned to the control condition (i.e., literacy bags that do not include an art activity). Prior to conducting the analysis of the data for Hypothesis 1, the two treatment conditions were tested for initial equivalence on the self-efficacy measure at baseline. A *t*-test comparison of the experimental and control groups' mean self-efficacy scores found that there was no statistically

significant mean difference between the two groups, (control: mean = 3.61, *SD* = .29 versus experimental: 3.59, *SD* = .32, (*t* = 0.23, *df* = 68, *p* = .82). Table 9 contains the descriptive statistics and the source tables from a repeated measures analysis of variance that was used to evaluate Hypothesis 1. The interaction between the grouping factor (i.e., experimental vs. control) and the within subjects factor (i.e., time, pretest vs. posttest) was analyzed. This test of within subjects effects assesses whether there was any statistical evidence supporting the claim that there would be differential change (i.e., improvement in self-efficacy) from pretest to posttest favoring the experimental group. As seen in Table 9, the interaction effect was not statistically significant (*F* = 1.52, *df* = (1, 68), *p* = .22). While the experimental group's mean self-efficacy score did improve from pretest to posttest (3.59 to 3.67) and the control group's mean self-efficacy score did not improve from pretest to posttest (3.61 to 3.61), the *magnitude* of this *improvement* (+ .08 vs. .00) is not statistically significant. Given these findings, Hypothesis 1 was not supported.

Table 9

Differential Change between Conditions on Self-Efficacy from Pretest to Posttest

	N	Mean (Standard)
Self-efficacy at pretest		
Control: No art	37	3.6 (0.29)
Experimental: Art	33	3.6 (0.32)
Self-efficacy at posttest		
Control: No art	37	3.6 (0.36)
Experimental: Art	33	3.7 (0.32)

While Hypothesis 1 as originally conceived did not consider a possible moderating role or moderating effect of the grade level of the students on the relationship between treatment condition and time, this possibility was considered in a repeated measures analysis of variance,

as shown in Table 10.

Table 10

Differential Change between Conditions: Effect of Grade Level on Self-Efficacy

	N	Mean (Standard)
Self-efficacy at pretest no art control		
Kindergarten	11	3.6 (0.30)
First grade	14	3.6 (0.34)
Second grade	12	3.6 (0.29)
Self-efficacy at pretest art group		
Kindergarten	13	3.7 (0.28)
First grade	15	3.6 (0.38)
Second grade	5	3.6 (0.32)
Self-efficacy at posttest no art control		
Kindergarten	13	3.7 (0.25)
First grade	15	3.7 (0.40)
Second grade	5	3.7 (0.32)
Self-efficacy at posttest art group		
Kindergarten	24	3.8 (0.33)
First grade	29	3.6 (0.37)
Second grade	17	3.7 (0.34)

As seen in Table 11 the 3-way interaction between grade, treatment group, and time is not statistically significant ($F = 0.04$, $df = (2.6\ 4)$, $p = .96$). This finding indicates that to the extent that there was differential change over time between the experimental and control conditions that change would not differ by or depend upon the grade. However, there is no evidence of differential change between the treatment (i.e., art) and control (i.e., no art) conditions, as shown in the previous analysis that excluded grade level.

Table 11

Tests for Effects of Time and Grade on Self-Efficiency

Source	Type III Sum of Squares	*df*	Mean Square	*F*	Significance
Time	0.058	1	0.058	1.717	0.195
Time * Group	0.078	1	0.078	2.318	0.133
Time * Grade	0.153	2	0.077	2.269	0.112
Time * Group * Grade	0.003	2	0.001	0.038	0.963
Error (Time)	2.162	64	0.034		

The two analyses of Hypothesis 1 shown in Tables 10 and 11 found no evidence of a treatment effect on self-efficacy. A more detailed inspection of the nine items comprising the self-efficacy measure suggests that many, if not most, of these items do not assess beliefs held by the parents about their ability to teach their child. Given that outcome, a factor analysis of the nine item self-efficacy measure was submitted to a principal components analysis that yielded a 3-component solution. As shown in Table 12 for each component, the item loadings are well above .30, a commonly cited cutoff for allowing an item to be retained as a measure of a component. The first of these components measures parents' beliefs regarding the degree to which parents play an important role in their children's learning. The second component assesses beliefs regarding the responsibility of parents in educating their children, and third component assesses parents' self-efficacy beliefs in the parents' ability to teach their children. These three components account for 58% of the variation in the original set of nine items. Although these three components are a reasonably effective summary of the original set of nine items in this measure, only the last component which assesses parents' self-efficacy beliefs in the parents' ability to teach their children is directly relevant to this investigation. This last component corresponds most clearly to the construct of self-efficacy as used in this study. As such, a reliability analysis of only this last component was conducted.

Table 12

Principal Components Analysis of Self-Efficacy Measure

	Component		
	1	2	3
SEPRE3	0.931		
SEPRE1	0.892		
SEPRE5	0.563		
SEPRE8		0.662	
SEPRE9		0.653	-0.425
SEPRE6		0.646	
SEPRE7		0.633	
SEPRE2			0.760
SEPRE4			0.737

The internal consistency reliability coefficient for this 2-item measure (Cronbach's α = .48) indicates the measure is not reliable. The reliability is low because there are only two items in the measure, not because the items are unrelated (r = .32). As commonly known, Cronbach's alpha coefficient is a function of the average intercorrelation among the items in a scale as well as the number of items in the scale. The reliability issue notwithstanding, a reanalysis of the first hypothesis using it was conducted because this 2-item measure is, on face-validity grounds, the best available measure,

Prior to the reanalysis, the experimental and control groups were compared on the revised 2-item self-efficacy measure at pretest in order to evaluate the initial equivalence of the two treatment groups at baseline. The experimental and control groups did not differ significantly at baseline (experimental: mean = 3.50, control: mean = 3.54, t = 0.30, df = 68, p = .77). Having established that the treatment and control groups were equivalent at baseline, a repeated measures analysis of variance was conducted in order to evaluate whether there was evidence of differential group change in self-efficacy favoring the treatment condition. The interaction

between treatment group membership and time is not statistically significant, which indicates there is no evidence that the self-efficacy of the treatment group improved relative to the control group (F = .16, df = 68, p = .70). Moreover, visual inspection of the mean self-efficacy scores in Table 13 substantiates clearly that neither group exhibited any evidence of mean change over time.

Table 13

Self-Efficacy Scores: Mean Change Over Time

Group	*N*	Mean	Standard Deviation
Pretest			
Control: No art	37	3.5	0.49
Experimental: Art	33	3.5	0.65
Posttest			
Control: No art	37	3.5	0.49
Experimental: Art	33	3.5	0.62

Hypothesis 2. Hypothesis 2 states that parents' self-efficacy beliefs about emergent literacy as measured by the self-efficacy subscale score of the PRBI will be positively related to the support that they provide in the home as measured by the Home Literacy Environment Scale.

In order to eliminate possible confounding effects of the intervention, Hypothesis 2 was evaluated by using Pearson to correlate the parents' self-efficacy beliefs and support for reading development as measured by the Home Literacy Environment using the pretest scores of each of these measures. As displayed in Table 14, there is no relationship between these two constructs (r = .05, p = .66). However, notable is that the reliability of this 9-item Home Literacy Environment measure is quite low (i.e., Cronbach's α = .33). A subsequent attempt to improve

the reliability of this measure by deleting items that exhibited poor corrected item-total correlations yielded an increase in reliability but to a level still considered *unacceptable* by the standards used to evaluate internal consistency reliability (i.e., Cronbach's α = .49). A third attempt to improve the reliability of the measure by including only the last four items of this measure, all of which directly related to reading per se, also failed to improve the reliability of the measure (i.e., Cronbach's α = .33). Despite several attempts to generate a more reliable Home Literacy Environment Scale, the net result is that it was not possible to do so. The relevance of this fact is that unreliable measures (i.e., measures like the Home Literacy Environment Scale with scores that are largely random) do not correlate with other measures such as the efficacy subscale score of the PRBI. Consequently, it must be acknowledged that the apparent lack of a relationship between these two measures may not be because the constructs are intrinsically unrelated to each other, but rather because of the poor reliability in the Home Literacy Environment Scale.

Table 14

Pearson Correlation between Parental Self Efficacy Beliefs and the Home Literacy Environment Scale

Pearson Correlation	0.053
Sig (2-tailed)	0.662
N	70

Hypothesis 3. Hypothesis 3 states that parental literacy beliefs about high quality book reading interactions, as measured by the Literacy Beliefs Questionnaire, will be positively related to the reading supports parents provide in the home as measured by the Home Literacy Environment Scale. As previously, in order to eliminate possible confounding effects of the

intervention, Hypothesis 3 is evaluated by using Pearson to correlate the parents' literacy beliefs about high quality reading interactions and support for reading development as measured by the Home Literacy Environment using the pretest versions of each of these measures. As displayed in Table 15, there is a marginally significant relationship between these two constructs ($r = .20$, $p < .10$). However, given the poor reliability of the Home Literacy Environment Scale, this relationship may not be meaningful.

Table 15

Pearson Correlation between Literacy Beliefs and the Home Literacy Environment Scale

	Parental Literacy Beliefs at Pretest	Home Literacy Environment
Parental literacy beliefs pretest		
Pearson correlation	1	0.20
Sig. (2-tailed)		0.098
N	70	70
Home Literacy Environment		
Pearson correlation	0.20	1
Sig. (2-tailed)	0.98	
N	70	70

Hypothesis 4. Hypothesis 4 states that parents in the experimental condition will report that their children exhibit greater change in their interest in reading than will the children of parents assigned to the control condition. Prior to conducting the analysis of the data for Hypothesis 4, the two treatment conditions were tested for initial equivalence on the Interest measure at baseline. A *t*-test comparison of the experimental and control groups' mean Interest scores did not find a statistically significant mean difference between the groups (i.e., control: mean = 4.14, $sd = .53$ vs. experimental: 4.14, $sd = .51$, $t = -0.05$, $df = 68$, $p = .96$). Table 16 contains the descriptive statistics and the source tables from a repeated measures analysis of variance which is used to evaluate Hypothesis 4. A test of within subjects effects containing the test of the interaction between the grouping factors and the within subjects factor evaluates

whether there is any statistical evidence supporting the claim that there will be significant differential change (i.e., improvement in interest) from pretest to posttest favoring the experimental group. The interaction effect is not statistically significant ($F = 0.27$, $df = (1, 68)$, $p = .61$). As shown in Table 16, while the experimental group's mean Interest score did improve from pretest to posttest (4.14 to 4.36 (= + 0.22), so, too, did the control group's mean Interest score improve (from 4.14 to 4.30 (= +.16)). The statistically insignificant interaction effect indicates that the difference in the amount of improvement between the two groups is not statistically significant. Given these findings, Hypothesis 4 is not supported by these data.

Table 16

Mean Scores: Children's Reading Interest

	N	Mean (Standard Deviation)
Children's Reading Interest pretest		
Control: No art	37	4.14 (0.53)
Experimental: Art	33	4.14 (0.51)
Children's Reading Interest posttest		
Control: No art	37	4.3 (0.61)
Experimental: Art	33	4.4 (0.47)

While Hypothesis 4 as originally conceived did not consider a possible moderating role or moderating effect of the grade level of the students on the relationship between treatment condition and time, this next repeated measures analysis of variance does do so. As in the reanalysis of Hypothesis 1 and analysis of within subject effects, the 3-way interaction between grade, treatment group, and time is not statistically significant ($F = 0.37$, $df = (2, 64)$, $p = .69$). As was the case with self-efficacy, this finding indicates that to the extent that there is

differential change over time between the experimental and control conditions that change does not differ by or depend upon the grade. However, the previous analysis that excluded grade level shows no evidence of differential change between the treatment and control conditions.

Hypothesis 5. Hypothesis 5 states that parents in the experimental condition will report greater enjoyment, rereading of the book with their child, and perceived involvement of the child in the weekly book reading experience as recorded on the weekly parent Evaluation Form, than will parents assigned to the control condition. The analysis of Hypothesis 5 also involves assessing the effect of the intervention. However, for Hypothesis 5, there are four, rather than two, assessments available. A mixed models approach to repeated measures analysis of variance was used to test this hypothesis that focuses on a test of the interaction between treatment group membership and time. A mixed models approach to repeated measures analysis of variance can accommodate missing weekly evaluation reports without incurring a loss of cases.

As shown in Table 17, the hypothesized interaction between group membership and time is not statistically significant at the conventionally used $p <= .05$ level ($F = 2.08$, $df = (3, 170.24)$, $p = .10$). Still, the pattern of the mean parental enjoyment scores for the two groups is notable because the experimental group's mean scores (i.e., 0 = did not enjoy the book, 1 = enjoyed the book somewhat, and 2 = yes, enjoyed the book) exhibited the predicted increase over time whereas the control group's pattern of mean enjoyment scores fluctuated randomly across the four weeks of the study. In addition, in the fourth (and last) week of the study, the mean parental enjoyment score for parents in the experimental group is marginally significantly different from the corresponding fourth week mean enjoyment score in the control group (1.93 vs. 1.65, $p = .06$).

Table 17

Parental Enjoyment: Interaction between Treatment Group Membership and Time

Source	Numerator *df*	Denominator *df*	*F*	Sig.
Intercept	1	67.37	1880.63	0.000
Group	1	67.37	0.438	0.510
Time	3	170.24	1.51	0.21
Group*time	3	170.24	2.08	0.10

With respect to the second weekly evaluation criterion (i.e., rereading the book with the child), Table 18 shows that the hypothesized interaction between group membership and time is not statistically significant at the $p <= .05$ level ($F = 0.14$, $df = (3, 166.52)$, $p = .93$). Moreover, unlike the case with the first evaluation criterion, the pattern of mean rereading scores (i.e., 0 = no, did not reread the book, 1 = reread the book once or twice, 2 = reread the book more than 3 times) appears to fluctuate inconsistently across time for both groups.

Table 18

Rereading the Book: Interaction between Treatment Group Membership and Time

Source	Numerator *df*	Denominator *df*	*F*	Significance
Intercept	1	68.82	78.95	0.000
Group	1	68.82	0.439	0.510
Time	3	166.52	0.869	0.459
Group*time	3	166.52	0.144	0.933

The third, and final, weekly evaluation criterion (i.e., *involvement*) is a simple count of the number of reading activities that the parent reports the child doing. These five activities

include (a) turning the pages, (b) reading any words, (c) asking any questions about the book, (d) asking to read the book again, and (e) making any comments. The score on this measure ranges from zero (i.e., the child did not do any of the five reading activities) to 5 (i.e., the child engaged in all five activities).

As shown in Table 19, the group by time interaction effect is not statistically significant ($F = 0.57$, $df = (3, 160.356)$, $p = .64$), although the main effect of time is significant ($F = 3.37$, $df = (3, 160.356)$, $p = .02$). Visual inspection of the four time means indicates that, averaging across the experimental and control groups, there is evidence of greater involvement of the child over time. While interesting, the time effect does not really address the focal question under investigation (i.e., is there evidence of differential group change over time). The interaction between group and time addresses this question, and this effect is not statistically significant. Visual inspection of the group-specific mean involvement scores across time finds that the control group's mean involvement scores generally, but not uniformly, increase over time. In contrast, the experimental group's mean involvement scores consistently increased over the four weeks of the study. Nonetheless, the fact that the group by time interaction is not statistically significant indicates that the pattern of change over time, while generally increasing for both groups, does not differ by group.

Table 19

Level of Involvement: Interaction between Treatment Group Membership and Time

Source	Numerator *df*	Denominator *df*	*F*	Significance
Intercept	1	67.14	848.16	0.000
Group	1	67.14	0.695	0.407
Time	3	160.36	3.369	0.020
Group*time	3	160.356	0.565	0.639

In fact, the parents were asked an additional question about the books they were given. This question was asked to determine whether the child had been exposed to the book prior to participating in the study. The literal text of this question is: *Have you read this book before with your child?* Subsequent to the collection of the data for this question, it became obvious that the question does not adequately or unambiguously provide the needed information. The question does not ask, as was intended, whether the child had been exposed to the book prior to his / her participation in the study. It appears after inspecting the data that a number of parents responded to the question in terms of whether they had read the book during the week prior to the evaluation report. Stated somewhat differently, it appears that a non-trivial proportion of the parents responded to this question as they had responded to the second weekly evaluation question (i.e., *Did you ever reread the book with your child?*). Given that fact, this last question was deleted from further consideration in the analyses presented herein.

Recall that Hypothesis 5 addresses whether there is evidence of differential treatment group change on any of the three weekly evaluation criteria: (a) whether the parent enjoyed the book, (b) whether the parent ever reread the book with his / her child, and (c) the level of child involvement (i.e., the number of reading-related activities that the child engaged in each week).

The original analyses presented previously have been rerun for each of these evaluation criteria, presently including the grade of the child as an additional predictor.

The first of these augmented analyses indicate that the grade of the child had no statistically significant *main effect* of its own ($F = 2.20$, $p = .12$), nor did it interact with the treatment condition ($F = .31$, $p = .74$), time ($F = 1.29$, $p = .26$), or the combination of these two predictors ($F = 0.28$, $p = .95$). Restated, the grade of the target child in the study had no effect on this first weekly evaluation criterion (i.e., the degree to which the parent enjoyed the book assigned each week).

With regard to the second weekly evaluation criterion (i.e., rereading the book assigned that week with the child), the second augmented analysis indicates that grade had a statistically significant main effect ($F = 5.08$, $p < .01$) but did not interact with either treatment condition ($F = 1.55$, $p = .22$), time ($F = 1.02$, $p = .41$) or the combination of these two predictors ($F = 1.67$, $p = .13$). The estimated marginal means for the grade factor presented below, which correspond to the main effect of grade, indicate that the number of times the book is reread decreases as a function of the grade level or alternatively, the age of the child. Children in kindergarten reread the assigned book significantly more times than did children in either the first grade ($p = .04$) or the second grade ($p < .001$) but the amount of rereading in the latter two grades does not differ significantly ($p = .18$).

With regard to the third, and last, weekly evaluation criterion (i.e., the number of reading activities that the parent reports the child engaged in), the third augmented analysis indicates that grade had no statistically significant main effect ($F = 1.06$, $p = .35$) nor did it interact with either treatment condition ($F = 0.73$, $p = .49$) or time ($F = 0.66$, $p = .69$), or the combination of these two predictors ($F = 0.66$, $p = .68$). As in the original analyses of these data (i.e., the analysis that

excluded grade), there is still a statistically significant main effect of time ($F = 2.80$, $p = .04$). As was found in the original analysis, visual inspection of the four time means indicates that, averaging across the experimental and control groups, there is evidence of more involvement of the child across time.

Hypothesis 6. Hypothesis 6 states that parents' self-efficacy beliefs about emergent literacy as measured by the efficacy subscale score of the PRBI will be positively related to the parents' level of involvement and contact with the school as measured by the Family Involvement in School Questionnaire. In order to eliminate possible confounding effects of the intervention, Hypothesis 6 will be evaluated by using Pearson to correlate parental self-efficacy beliefs about emergent literacy at pretest and the parents' level of involvement and contact with the school that is also administered only at Time 1. The descriptive statistics for the parents' level of involvement indicate that 80% of the respondents endorse seven or eight of the eight dichotomous (i.e., yes / no) items that use the parent's involvement in school activities. More than half (i.e., 55%) endorse all eight of these items. Obviously, this measure exhibits clear evidence of a *ceiling effect* with attendant skewness. Nevertheless, there is a modest, but statistically significant correlation between parental self-efficacy beliefs at Time 1 and parental involvement ($r = .25$, $p = .04$).

Hypothesis 7. Hypothesis 7 states that parents whose early educational experiences differ from those of their children will report lower self-efficacy beliefs as measured by the efficacy subscale score of the PRBI as well as lower literacy beliefs about high quality book reading interactions as assessed by the Literacy Beliefs Questionnaire. In order to eliminate possible confounding effects of the intervention, Hypothesis 7 was evaluated by using Pearson to correlate a brief measure of parents' educational experiences that differ from that of their

children (i.e., addressed by a question in the demographic background questionnaire asking parents if their elementary education began outside the United States for at least two years) and operational measures of self-efficacy beliefs and literacy beliefs about high quality book reading interactions at pretest. As shown in Table 20, neither of these correlations is statistically significant. Parents whose educational experiences differed from those of their children did not report significantly lower scores on either the efficacy subscale of the PRBI (r = -.07, p = .55) or the Literacy Beliefs about Reading scale (r = -.09, p = .44).

Table 20

Pearson Correlations between Parental Educational Experiences that are Different from Children's Experiences and (a) Self Efficacy Beliefs, and the (b) Literacy Beliefs about Reading Scale.

	Self Efficacy Pretest	Parental literacy Beliefs Pretest
Pearson correlation	-0.073	-0.094
Sig (2-tailed)	.547	.438
N	70	70

Analysis of the Children's Art work

Two sets of art work from each grade were selected based on level of intricacy (i.e., details, story depiction). One set was the most intricate and the other the simplest of the students' art work. The responses from the weekly parental evaluation forms were used to compare whether the children enjoyed the books and the art project, and if he / she reread the books. In the kindergarten grade both males and females participated equally and art did not vary in intricacy with respect to gender; both sets (i.e., the intricate and the simplest) were created by

females. Three weeks of surveys were returned for each. The parents of the students who created the most intricate set and the simplest set both reported that their child enjoyed the book and the art each week. However, the kindergarten student with the more intricate set of art reread two ofthe books while the student with the simplest set reread only one.

Overall the art work from the first grade students was quite impressive. Many depicted the stories and some wrote sentences to describe the art. It was somewhat difficult to choose only one from among the four more intricate and elaborate sets. As reported by the students' parents on the weekly evaluation forms, all of the students enjoyed the books and enjoyed the art projects. Rereading of the books varied greatly. One of the students reread all the books and one of the students did not reread any while the other two students reread only one or two of the books. Amongst the four intricate sets, the intricacy of the art did not seem to vary by book with one exception. One student created three intricate drawings and one that was markedly simplistic in comparison. The simple drawing was of the snake which was interestingly the only week that the student was reported to not have enjoyed the art activity. It is notable that three of the four selected intricate sets were created by females while the two selected simple sets were created by male students. In addition, both students with the simple sets enjoyed reading and enjoyed the art project each week. One of the students reread one of the books and another student reread two of the books. The quality of the art did not seem to determine whether the student enjoyed the book and/or the art project. Overall, all of students enjoyed the art projects most every week.

The most intricate set of art work chosen from among the second grade was created by a female student while the simplest set selected was created by a male. Parents of both students reported that the students enjoyed the books and enjoyed the art activity. However, the students differed in rereading. The student who produced the more intricate and very elaborate artwork

reread two of the books while the other student did not reread any of the books. Overall, all three grades appeared to enjoy the art projects and produced many substantial pieces that are included in Appendix K.

Chapter 5: Discussion

In recent years, researchers have demonstrated the value of art experiences for increasing children's engagement in literacy activities. It is possible that including art activities in home literacy bags will have a similar impact on parents, enhancing their involvement in shared home literacy activities, as well as their involvement in their child's school experience. Recent work has documented the effectiveness of family literacy bags in enhancing literacy learning. The intention of this study was to see if modifying the content of these bags by incorporating the arts would not only elicit greater involvement, but also increase parents' efficacy beliefs about themselves as teachers of early literacy. Family literacy bags that incorporate the arts may be more engaging to all parents and yield greater effects on parents' literacy beliefs and involvement, having a positive effect on children's' early literacy development.

Parental involvement is a critical factor in the effectiveness of early literacy instruction. It is well documented that the home literacy environment and parental involvement are related to children's early language and literacy skills (Bus, Van Ijzendoorn, & Pelligrini, 1995; Christian et al., 1998; Frijters, Barron, & Brunello, 2000; Griffin & Morrison, 1997; Levy et al., 2006; Payne et al., 1994; Purcell-Gates, 1996; Roberts, Jurgens, & Burchinal, 2005). Parental involvement has a greater impact on children's literacy learning than other variables such as social class, family size, and level of parental education (Flouri & Buchanan, 2004). In addition, parental involvement is related to school achievement (Dearing et al., 2006; Englund et al. 2004; Fan & Chen, 1999; Jeynes, 2005).

Researchers have indicated that parental beliefs are associated with home literacy environment and overall school involvement (Bennett et al. 2002; DeBaryshe, 1995; Evans et al. 2004; Weigel et al. 2006). Parents' beliefs in their own ability to teach literacy is a key factor in

determining their level of involvement since they may not feel confident enough or know how to get involved in their children's early literacy learning (Grolnick et al. 1997; Primavera, 2000). Personal efficacy beliefs impact behaviors (Bandura, 1986; Zimmerman, 2000), and parents who have high efficacy beliefs as educators are more likely to be involved in their children's learning (Hoover-Dempsey & Sandler, 1997, 1995). The present study focuses on parents' self-efficacy beliefs since their beliefs are related to their literacy practices.

Since the start of the 21st century there have been a variety of family literacy programs that have included instructional workshops and / or sending information home to educate parents and to increase their involvement in literacy related behaviors (Barbour, 1999; Cook-Cottone, 2004; Dever & Burts, 2002; Faires, 2000; Handel, 1999; Jordan, Snow, & Porsche, 2000; Morrow & Young, 1997; Padak, Sapin, & Baycich, 2002; Sénéchal, 2006). However, there is no consensus as to what the best practices are and how best to involve parents in their children's early literacy learning. The present study examined how home literacy bags, which have gained increasing attention as a parent involvement technique, could be modified to increase their effectiveness.

One way to do this may be through the incorporation of the arts since the arts cut across language differences, and have been proven integral as a component of children's language and literacy development (Johnson, 2007). By promoting a richer and deeper learning experience, the arts broaden children's interest and accommodate and utilize differences among students (Berghoff, 2001; Carger, 2004; Ehrenworth, 2003; Heymsfeld, 1997; Johnson, 2007; Walker, 2000). Through the arts children experience success, which is one of the most powerful ways that self-efficacy can be increased (Bandura, 1995). Just as the arts support children's

experiences of success in literacy, the arts also may help to support the development or enhancement of parents' efficacy as teachers of early literacy.

Strong home literacy environments are important, and parents play a pivotal role in their children's early literacy learning (Christian et al., 1998; Gillanders & Jiminez, 2004; Payne et al., 1994; Purcell-Gates, 1996). However, there are special challenges engaging families who differ in language, culture, and in beliefs about their own role in their children's education (Pattnaik, 2003). Incorporating the arts into a literacy outreach program may elicit greater involvement while increasing parents' efficacy beliefs as teachers of early literacy (Greene, 2008). This study investigated the impact of including art activities / materials in the literacy bags on parental beliefs about reading involvement and parents' self-efficacy beliefs about their ability to teach reading to their children in kindergarten, first, and second grade. The following sections present an overview of the study, findings, limitations, and areas for future research and implications for intervention.

Overview of the Study

The study took place over five weeks in a private day school in New York City with middle to upper-class population that was culturally and ethnically diverse. The first week, a letter describing the study and asking for consent was sent to the families of all children enrolled in kindergarten, first grade, and second grade (Appendix H). Prior to the letters being sent home, the children were asked independently if they wanted to participate and responded with show of hands in the classrooms. In addition to the letter, children were sent home with the demographic / background questionnaire, the Family Involvement in School Questionnaire (Dearing et al., 2006), the Home Literacy Environment Scale (Griffin & Morrison, 1997), the efficacy subscale of the PRBI (DeBaryshe & Binder, 1994), the Literacy Belief Questionnaire (Bingham, 2007),

and a questionnaire on children's interest in literacy (Weigel et al., 2006). Class rosters were obtained. Of the 236 K-2 students at the school, 70 agreed and received parental consent to participate.

Within each class, the consented students were randomly assigned to either treatment or control, with assignment done separately for males and females. The questionnaires and scales were returned, and subsequently the literacy bags containing books and activities were sent home once per week for four weeks. In the treatment condition, the literacy bags contained a book to take home as well as art supplies (i.e., two sheets of plain paper and a pack of four crayons), and a welcome letter instructing parents to use the art supplies provided to do an art activity after reading the book with their child. In the control condition, the backpack contained the same book with a welcome letter providing instructions to parents to read with their children as they were accustomed, but no art supplies were provided. Four different culturally neutral books were chosen from the Children's Choices booklist of children's favorite books that International Reading Association and the Children's Book Council compiled in 2007 and 2008. For appropriate age level, books were chosen from among the favorites of kindergarten to second grade students. Two fiction and two non-fiction books were chosen to balance preferences that children may have for book content and story topic. The families were able to keep the books that were sent home each week as incentive for participating in the study. In the fourth week, literacy bags for both conditions also contained the PRBI efficacy subscale (DeBaryshe & Binder, 1994), the Literacy Belief Questionnaire (Bingham, 2007), and the Children's Reading Interest Questionnaire (Weigel et al. 2006). These served as posttests. Table 2 shows the sequence of materials for both the experimental and control groups.

Data did not support Hypothesis 1, the prediction that parents in the experimental condition (i.e., literacy bags that include an art activity) would have reported greater gains in self-efficacy beliefs than parents who had been assigned to the control condition (i.e., literacy bags that do not include an art activity). However, the data clearly show that the self-efficacy scores of parents in the art activity condition did increase from pretest to posttest. While a non-significant change, perhaps with larger N or more time, this effect would have been significant since it is possible that parents' self-efficacy scores would have continued to improve. Another possibility is that the two groups' mean self-efficacy scores at pretest were very high (i.e., 3.61, and 3.59, with the highest being 4). Essentially, these scores were so near to the top range in the scale that little area for improvement remained (i.e., before the art intervention was administered). Therefore, there was no significant difference because little increase was possible for either group. Furthermore, an analysis using only the two items that most directly addressed the self-efficacy as literacy teachers did not reveal differences between the experimental and control groups.

Hypotheses 2 and 3 both address the relation between parental beliefs and their home literacy practices. Hypothesis 2 states that parents' self-efficacy beliefs about emergent literacy as measured by the self-efficacy subscale score of the PRBI will be positively related to the support that they provide in the home as measured by the Home Literacy Environment Scale. Hypothesis 3 states that parental literacy beliefs about high quality book reading interactions, as measured by the Literacy Beliefs Questionnaire, will be positively related to the reading supports parents provide in the home as measured by the Home Literacy Environment Scale. The reliability of the Home Literacy Environment measure, used in both Hypothesis 2 and Hypothesis 3, was quite low despite several attempts to generate a more reliable scale. Therefore,

it was not possible to correlate Home Literacy Environment with the other measures (i.e., self-efficacy subscale of PRBI, Literacy Belief Questionnaire). Thus the lack of relationship found between Home Literacy Environment and the self-efficacy subscale score of the PRBI may have occurred not because these constructs are intrinsically unrelated to each other, but instead due to the poor reliability of the Home Literacy Environment measure. Similarly, though a marginally significant relationship ($r = .20$, $p < .10$) was found between the Home Literacy Environment measure and parental beliefs about high quality book reading as measured by the Literacy Belief Questionnaire, the relationship is questionable given the poor reliability of the Home Literacy Environment measure.

Data did not support Hypothesis 4, the prediction that changes in level of interest in reading would be greater in children who received the art intervention compared to those who did not receive the intervention. Notable is that interest in reading scores improved comparably in both the experimental and control group. This finding suggests that reading interest may have increased due to participation in the research, either because of the novelty of the books, or the increase in parental involvement, which affected the students' interest. Also notable is that the measure of children's interest was actually a rating by the parents, which may have impacted their sensitivity and awareness of their children's interest.

Hypothesis 5 predicted that compared to parents in the control group, parents in the experimental condition would report greater enjoyment, rereading of the book with their child, and perceived involvement of the child in the weekly book reading experience as recorded on the weekly parent Evaluation Form. The analysis of these data revealed interesting differences in response consistency between the groups. Scores on the weekly parent Evaluation Form increased consistently over time in the experimental group while scores in the control group

varied from week to week. In addition, in the final week, significant differences were found between the groups in the mean parental enjoyment score. During this last week, the parents assigned to the art condition reported more enjoyment of reading the book with their child than those in the group without the art component. As with the self-efficacy scores in Hypothesis 1, it would be interesting to know whether parents' interest would have increased due to increased comfort with the study activities, had the study continued for several more weeks. The second item on the weekly evaluation form assessed if the book was reread. These scores fluctuated for both groups each week. A limitation is that the rereading scores may have fluctuated for both groups due to the specific book itself (i.e., content or reading level). Parents or children may have decided to reread the book based on their level of interest in the subject matter, or possibly because they liked the pictures. Another plausible reason could be that either the parents or the children felt comfortable with the reading level, which may have inspired them to read the book again.

In the analysis related to Hypothesis 6, a modestly significant correlation ($r = .25$, $p = .04$) was found between parental self-efficacy beliefs and parents' level of involvement. It is important to note the scant variability in responses to the Family Involvement in School Questionnaire since all parents endorsed either 7 or 8 on this 8-item scale. This outcome suggests there may have been a ceiling effect. Therefore, this significant relationship might have been even stronger if there had been a greater range of responses. In addition, it is not surprising that the correlation was significant, because parental self-efficacy beliefs and parental involvement seem fundamentally related, and it would be difficult to have one without the other. Apparently, self-efficacy contributes to high levels of involvement and this involvement fosters and enhances

self-efficacy. Parental involvement is fostered by self-efficacy and simultaneously, the experience of being involved enhances parental efficacy.

Data did not support Hypothesis 7. Self-efficacy beliefs were not influenced by parents having early educational experiences that differed from their children's educational experiences. Parents whose educational experiences were different from those of their children did not report significantly lower scores on either the efficacy subscale of the PRBI (r = -.07, p = .55) or the Literacy Beliefs about Reading scale (r = -.09, p = .44). However, it is notable that only one question addressed whether parents had different educational experiences than those of their children. In addition, the majority of the population in this study was highly educated college graduates and postgraduates. Different results may have been obtained amongst less educated parents whose early educational experiences differed from those of their children.

Children's Art Work

The majority of students in the experimental group enjoyed the art projects every week. Certainly, the art work enabled the children to think about the content of the story as they thought about what they wanted to create in their work of art. Many of the students' creations displayed pictures that told a story and many students added words to their pictures to help tell the story about the book they read each week. These findings suggest that the art project helped the students to think about the story, content, setting, and meaning of the book. Subsequently, this process impacted the students' experience with the books, quite possibly yielding a more enjoyable experience overall.

The art work that was created by the children in the experimental condition revealed some interesting findings. In the experimental group, children's enjoyment of the books was not related directly to the quality of the artwork that they produced. As reported by the students'

parents on the weekly evaluation forms, all the students enjoyed all the books. The students in the experimental group were asked if they enjoyed the book as well as if they enjoyed the art activity. All of the students indicated that they enjoyed the art activity. Whether the art work was elaborated or simplistic had no apparent relation to whether the students enjoyed the book. However, one student's art work demonstrated a clear connection between the enjoyment of the book and the quality of the art production. Specifically, three of this child's four artistic creations were extremely elaborate and the fourth was very simple. The most simplistic of the four artistic creations was the only time that the student reported not enjoying the art activity. It is possible that this was because the book was about snakes and the student didn't like drawing snakes. Overall, the female students' art work was more elaborate than the males' art work. This gender difference is noteworthy and it is possible that using art may increase literacy motivation more for girls than for boys. The gender differences in the art work warrant further study. More systematic examination of the content and detail of the artwork may reveal important connections between art experiences and literacy.

Overall, 32 children turned in a total of 88 pieces of artwork on the drawing paper with their study ids. Of these, 41 were done by males and 47 by females. In addition to the 88 total identified pieces of art, there were 8 pieces that could not be identified since the children used their own paper which did not have the identification number on it. Findings related to the identified pieces of artwork are summarized below. From among the 11 students in kindergarten (6 males, 5 females), 24 pieces were returned in total (14 from males and 10 from females). One student returned art each week from all four books. However, the majority of students returned only two pieces. Only two pieces of art were returned from Hi Fly Guy while the other three books yielded a higher (6-8) and more similar return rate for the art. The male students returned

6 pieces of art for Maggie and Moo while the females returned 2 only.

In 1st grade, 41 pieces of art were returned from 12 students (5 male, 7 female). Seven of the students returned four pieces of art while the other five students returned only two or three. The art that was returned was not affected by the book since return rates for each book were similar. As in kindergarten, there was not much discrepancy regarding gender with males returning 18 pieces and females returning 23 pieces of art. In 2nd grade, 23 pieces of art, 9 from males students and 14 from female students, were returned from 9 students (4 males, 5 females). Two of the students returned art for each of the four books. The book for which the least amount of art was returned was Hi Fly Guy. Hi Fly Guy yielded considerably less art in both kindergarten and 2nd grade.

Limitations of the Study

The data was collected by using self-report surveys and measures, which is a common method for obtaining information in educational research. Questionnaires of this type ask the respondents to answer questions about how they act and think. A limitation of this type of questionnaire is that what people report they do and provide for their children may differ from what actually occurs in their home environments. The difficulty with self-report data is that it assumes the respondent to be completely accurate in reporting personal behavior and experience. Self-report measures require respondents to have a basic sense of self awareness, but also assume that respondents will be reporting the truth about their past and experiences. Self-report data are also subject to distortion because of social desirability (e.g., parents may overestimate the resources and / or time that they devote to their children's literacy learning).

A second limitation of the study concerns the choice of books. Students in Kindergarten through second grade are numerous times at varying reading levels and it is hard to control for these differences and the effects on the results. Although the books were chosen from the Children's Choice Awards for kindergarten through second grade, they may not have been well-matched to the interests and skills of all the children. Thus, variations in children's reading levels and interest may have impacted the results of the study. If a book is too easy to read, then the child may not want to read it, and the same may happen if the book is overly difficult. In addition, the subject matter and familiarity with the book may have an effect on the results. Two fiction and two non-fiction books were chosen to help account for varying reading interests. However, some children may have found certain subject matter more interesting than other children, which may have influenced the outcome of the study. Similarly, differences in children's interest and reading level may affect directly parents' beliefs, rereading, and involvement. Children's reaction to books may influence parents' efficacy and involvement, subsequently influencing their children's interest and rereading of the books.

The third limitation of the study concerns the study population. The school in which this study was conducted was primarily upper middle class with a highly educated parent population. Very different results might be obtained in a public school with a more varied parent population. Although it would be appropriate to ask the same questions with a diverse sample, the answers might have yielded very different results. Scores in the study population tended to be high and consequently there was not much range within each variable. The limited range made it difficult to say much about the impact of the intervention itself, or in relation to education and

income. In addition, this population tends to be high in self-efficacy anyway, which limited the chances of demonstrating effects from the intervention. Lastly, the self-selected nature of the sample also increased the likelihood of participants having high self-efficacy prior to the intervention.

The fourth limitation of the study pertains to the limited coverage of family background. The information obtained from the background questionnaire was limited and could have been more comprehensive. Additional information on the families might have been useful to compare with the results obtained in this study.

Future Research

Further research is needed to examine the effect of art activities on students' reading interest as well as on parental involvement and self-efficacy as early literacy teachers. However, a longer study period is necessary to pursue this valuable link between incorporating art and the impact on reading interest. In addition, future research should assess the impact of using a broader range of books, aligned more closely to students' skill and interests, and more extended art activities structured deliberately to elicit parent participation.

It is possible, as indicated in the analysis of Hypothesis 1, that self-efficacy scores of the experimental group would have continued to improve and the difference between the groups would have been significant if the study had continued over several more weeks. The results of this study suggest the value of future research that can incorporate the arts into literacy to further assess the impact the arts have on parents' beliefs and children's reading interest. The outcomes of the study indicate the potential value of research on the influence of art activities on parent

beliefs and children's reading interest. Future research should extend and replicate this study to establish increased understanding about the effect of incorporating art on parents' self-efficacy and reading beliefs. This may be meaningful to explore since previous research shows that parents who have high efficacy beliefs as educators are more likely to be involved in their children's learning (Hoover-Dempsey & Sandler, 1997, 1995), and ultimately will "behave in ways that are more effective with their children" (Sigel & McGillicuddy-De Lisi, 2002, p. 495). For when parents believe in their own ability to teach literacy skills and are involved in literacy related activities, their children benefit specifically in terms of print knowledge and reading interest (Weigel et al., 2006). Although only marginally significant results were obtained, the arts did have an effect on parental enjoyment, and future research is needed to clarify the conditions under which this occurs, as well as the relation between parental enjoyment, parental involvement, and student literacy learning. In addition, future research should replicate this study in a more diverse population. This study was conducted in a highly educated middle to upper income population. It would be very important for future research to assess the results in a less educated and affluent population since it is possible that the arts may have particular significance in more diverse populations.

Intervention Implications

Strong literacy environments are important, and parents play a pivotal role in their children's early literacy learning (Christian et al., 1998; Gillanders & Jiminez, 2004; Payne et al., 1994; Purcell-Gates, 1996). Incorporating the arts into a literacy outreach program was predicted to elicit greater involvement as well as to increase parents' efficacy beliefs as teachers of early literacy (Green, 2008). The purpose of this research was to determine an approach that would be effective in enhancing parents' confidence in their own capacities as teachers of early literacy.

In recent years, researchers have demonstrated the value of art experiences for increasing children's engagement in literacy activities. It was expected that including art activities in home literacy bags would have a similar impact on parents, enhancing their involvement in shared home literacy, as well as in the school. The findings of the study suggest that there is a relationship between parental self-efficacy and parental involvement, and that art activities affect both of them. It is worth exploring ways to extend the benefit of art activities when incorporated with literacy on children and their parents.

Given the reported relation between parent involvement and child literacy achievement (Fan & Chen, 2001), strategies to increase parent involvement, such as the one explored in this study, are potentially of great value. By eliciting involvement from previously uninvolved parents, educators can begin to strengthen the supports for literacy learning and thereby begin to reduce the troubling and recurring gaps in early literacy achievement. In addition, schools would benefit from incorporating art activities to create an effective program to involve parents in children's early literacy skill development.

Appendices

Appendix A

Weekly Parent Evaluation Form (Dever& Burts, 2002)

Control Group:

1. Did you enjoy the book?

0	1	2
No	Somewhat	Yes

2. Did you ever reread the book with your child?

0	1	2
No	Once or Twice	More than three times

3. Check all that apply. Did your child:

_____ turn the pages
_____ read any words
_____ ask any questions about the book
_____ask to read the book again
_____ make any comments

4. Have you read this book before with your child? Yes No

Weekly Parent Evaluation Form (Dever& Burts, 2002)

Experimental Group:

1. Did you enjoy the book?

0	1	2
No	Somewhat	Yes

2. Did you ever reread the book with your child?

0	1	2
No	Once or Twice	More than three times

3. Check all that apply. Did your child:

_____ turn the pages
_____ read any words
_____ ask any questions about the book
_____ask to read the book again
_____ make any comments

4. Have you read this book before with your child? Yes No

5. Did you enjoy the art activity?

0	1	2
No	Somewhat	Yes

Appendix B

Demographics / Background Questionnaire

1. Circle who is completing the survey: Mother Father Both Other

2. Circle the gender of your child: Male Female

3. Other than English, do you currently speak another language in your home which you learned outside of the United States during childhood or adolescence? Yes No

4. Did your elementary school education begin outside of The United States and last at least two years? Yes No

5. Were either of your parents educated in their elementary years outside of the United States? Yes No

6. Place an X beside the highest level of schooling you have completed:

_____ Elementary School
_____ Grade 8
_____ High School Grade 10
_____High School Grade 12
_____Community College
_____ Undergraduate University
_____ Post Graduate School (e.g. MA, PhD, MD)

Appendix C

Family Involvement Scale (Dearing, Kreider, Simpkins, & Weiss, 2006)

1.	Do you attend parent-teacher conferences?	Yes	No
2.	Do you visit your child's classroom?	Yes	No
3.	Do you attend any school performances?	Yes	No
4.	Do you attend any social events at your child's school?	Yes	No
5.	Do you volunteer in your child's classroom?	Yes	No
6.	Do you attend meetings, like PTO or PTA?	Yes	No
7.	Do you attend classroom open houses?	Yes	No
8.	Do you volunteer in the classroom?	Yes	No

Appendix D

Home Literacy Environment Scale (Griffin & Morrison, 1997)

How many hours per week does your child watch TV?
Monday to Friday _____

How many hours does your child watch TV on weekend days?
Saturday_____ Sunday_____

Does anyone in the home have a library card?

(_____) Yes (_____) No

If Yes, how often is it used ?

Does your family subscribe to newspapers and/or magazines ?

(_____) Yes (_____) No

If Yes:
Number of Newspapers _____

Number of Adult magazines_____

Number of Child magazines_____

How often do you (does mother) read to yourself (herself)?

(____) Daily (____) Several times a week (____) Weekly or less

How often do you (does father) read to yourself (himself)?

(____) Daily (____) Several times a week (____) Weekly or less

Who reads to your child? _____

How often? (____) Daily (____) Several times a week (____)Weekly or less

Approximately how many books does your child own?

(____)Less than 10 (____)10 -30 (____) more than 30

Appendix E

Parent Reading Belief Inventory: Self-efficacy Subscale (DeBaryshe, 1994)

1. As a parent, I play an important role in my child's development

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

2. There is little I can do to help my child get ready for school

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

3. My child learns many important things from me

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

4. I would like to help my child learn but I do not how

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

5. I am my child's most important teacher

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

6. Schools are responsible for teaching children, not parents

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

7. Parent's need to be involved in their children's education

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

8. When my child goes to school, the teacher will teach my child everything my child needs to know so I don't need to worry

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

9. Children do better in school when their parents also teach them things at home

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

Appendix F

Book Reading Beliefs, How Parents Should Read to Their Children (Bingham, 2007)

1. Parents should encourage children to help tell the story

1	2	3	4	5	6
strongly disagree	disagree	disagree somewhat	agree somewhat	agree	strongly agree

2. Parents should ask children a lot of questions about the book

1	2	3	4	5	6
strongly disagree	disagree	disagree somewhat	agree somewhat	agree	strongly agree

3. Parents should teach about the text

1	2	3	4	5	6
strongly disagree	disagree	disagree somewhat	agree somewhat	agree	strongly agree

4. Parents should talk about pictures as much as they read the story

1	2	3	4	5	6
strongly disagree	disagree	disagree somewhat	agree somewhat	agree	strongly agree

5. Parents should encourage children to point out letters that are in the books

1	2	3	4	5	6
strongly disagree	disagree	disagree somewhat	agree somewhat	agree	strongly agree

6. Parents should make stories real for children by relating story to his or her life

1	2	3	4	5	6
strongly disagree	disagree	disagree somewhat	agree somewhat	agree	strongly agree

7. Parents should try to sound excited so the child stays interested

1	2	3	4	5	6
strongly disagree	disagree	disagree somewhat	agree somewhat	agree	strongly agree

8. Parents should want their children to ask questions during reading

1	2	3	4	5	6
strongly disagree	disagree	disagree somewhat	agree somewhat	agree	strongly agree

9. Parents should make reading with child an interactive experience

1	2	3	4	5	6
strongly disagree	disagree	disagree somewhat	agree somewhat	agree	strongly agree

10. Parents should make reading fun for child

1	2	3	4	5	6
strongly disagree	disagree	disagree somewhat	agree somewhat	agree	strongly agree

Appendix G

Children's Reading Interest (Weigel, Martin, & Bennett, 2006)

1. How often does your child look at books by themselves?

Hardly ever	Sometimes	Once a week	Once a day	Two or more times a day
1	2	3	4	5

2. How long does your child look at books by themselves?

Hardly ever	Minute or two	Several minutes	Half hour	Hour or more
1	2	3	4	5

3. How often does your child ask to look at books or be read to?

Hardly ever	Sometimes	Once a week	Once a day	Two or more times a day
1	2	3	4	5

Appendix H

Parent Consent Letter

My name is Heather Kadish and I am a student in the Educational Psychology Ph.D. Program at The Graduate Center of the City University of New York (CUNY), and Principal Investigator of this project, entitled "The Effect of Including Art Activities in Home Literacy Bags on Elementary School Parents' Self-Efficacy Beliefs." I am doing this research project under the supervision of my advisor, Dr. Helen Johnson. The purpose of this research is to gather information about the home literacy practices, beliefs and attitudes of parents. The results of this study may yield valuable information that may be used in helping children learn to read.

All information gathered will be kept strictly confidential, and will be stored in a locked file cabinet, to which only I, and my advisor, will have access. Please note that filling out these questionnaires is completely voluntary and there are no correct or incorrect answers. You, and your child, may refuse to participate or choose to stop at anytime. You may skip any questions you do not wish to answer.

The duration of the project will be five weeks which will commence with this letter, the permission form, and the attached questionnaires which should take no longer than ten minutes to complete. The following three weeks your children will be sent home with literacy bags and a simple two or three question evaluation form. You are being asked to read the books with your child, follow the requested guidelines in the bag, and complete the evaluation form. You are also being asked not to discuss the activities that will be assigned with the other kindergarten, 1st or 2nd grade parents. On the fifth week, the literacy bag will be sent home and I will again ask you to complete the evaluation form in addition to several questionnaires which should take approximately 10 minutes.

The entire kindergarten, 1st and 2nd grade at the school are being invited to participate in this study. There are no foreseeable risks associated with the study. At the end of the study each family will be given a book that they can keep.

I may publish the results of this study, but the names of people, or any identifying characteristics, will not be used in any of the publications. If you would like a copy of the study, please provide me with your address and I will send you a copy in the future.

If you have any questions about this research, you can contact me at 917-903-4999, Heatherkadish@yahoo.com., or my faculty advisor Professor Johnson (718) 997-5312 or hjohnson@gc.cuny.edu. If you have questions about your rights as a participant in this study, you can contact Kay Powell, IRB Administrator, The Graduate Center/City University of New York, (212) 817-7525, kpowell@gc.cuny.edu.
Thank you in advance for your participation!

_____
Child's Name

_____ _____ _____ _____
Participant's signature Date Investigator's signature Date

Appendix I

Reminder Notes

Dear Families,

Thank you for your participation in this valuable research study. If you have not already completed the surveys and still wish to, please complete them and return them to school with your child in the sealed envelope tomorrow since the first book will be sent home in just a few days and the more surveys completed the better!

Please note that filling out these questionnaires is completely voluntary and there is no correct or incorrect answer. The purpose of the study is to learn about what parents believe. You may refuse to participate or choose not to continue at anytime. You may skip any questions you do not wish to answer.

If you have any questions about this research, you can contact me at 917-903-4999, Heatherkadish@yahoo.com., or my faculty advisor Professor Johnson (718) 997-5312 or hjohnson@gc.cuny.edu. If you have questions about your rights as a participant in this study, you can contact Kay Powell, IRB Administrator, The Graduate Center/City University of New York, (212) 817-7525, kpowell@gc.cuny.edu.

Thank you!

Heather Kadish

Last Reminder

Dear Families,

Thank you for your participation in this valuable research study. If you have not already completed the surveys and still wish to, please complete them and return them to school with your child in the sealed envelope tomorrow!

Please note that filling out these questionnaires is completely voluntary and there is no correct or incorrect answer. The purpose of the study is to learn about what parents believe. You may refuse to participate or choose not to continue at anytime. You may skip any questions you do not wish to answer.

If you have any questions about this research, you can contact me at 917-903-4999, Heatherkadish@yahoo.com., or my faculty advisor Professor Johnson (718) 997-5312 or hjohnson@gc.cuny.edu. If you have questions about your rights as a participant in this study, you can contact Kay Powell, IRB Administrator, The Graduate Center/City University of New York, (212) 817-7525, kpowell@gc.cuny.edu.

Thank you!

Heather Kadish

Appendix J

Welcome Letters

Week 2

Control group:

Dear Family,

Enclosed is a book to read with your child over the week at home in a manner in which you are accustomed. Please return the evaluation form in the sealed envelope on Wednesday. The book is yours to keep!

This week the book is titled: Amazing Dolphins. It takes readers into the amazing world of dolphins with full color photographs. Enjoy!

Please remember not to discuss these activities with other parents partaking in this valuable research study.

Thank you so much for participating!

Experimental group:

Dear Family,

Enclosed is a book to read with your child over the week at home. Please use the art supplies provided to do an art activity after reading the book with your child. There is no correct or incorrect way to do the art project as long as it relates to the book in some way. It is to be done after reading the book in a way that is most comfortable to you and your child. Please return the evaluation form and the artwork that was created in the sealed envelope on Wednesday. The book is yours to keep!

This week the book is titled: Amazing Dolphins. It takes readers into the amazing world of dolphins with full color photographs. Enjoy!

Please remember not to discuss these activities with other parents partaking in this valuable research study.

Thank you so much for participating!

Week 3

Control group:

Dear Family,

Enclosed is a book to read with your child over the week at home in a manner in which you are accustomed. Please return the evaluation form in the sealed envelope on Wednesday. The book is yours to keep!

This week the book is titled: Minnie and Moo: The Case of the Missing Jelly Donut. It is a mystery with comical illustrations. Minnie and Moo blame someone else when something comes up missing. Enjoy!

Please remember not to discuss these activities with other parents partaking in this valuable research study.

Thank you so much for participating!

Experimental group:

Dear Family,

Enclosed is a book to read with your child over the week at home. Please use the art supplies provided to do an art activity after reading the book with your child. There is no correct or incorrect way to do the art project as long as it relates to the book in some way. It is to be done after reading the book in a way that is most comfortable to you and your child. Please return the evaluation form and the artwork that was created in the sealed envelope on Wednesday. The book is yours to keep!

This week the book is titled: Minnie and Moo: The Case of the Missing Jelly Donut. It is a mystery with comical illustrations. Minnie and Moo blame someone else when something comes up missing. Enjoy!

Please remember not to discuss these activities with other parents partaking in this valuable research study.

Thank you so much for participating!

Week 4

Control group:

Dear Family,

Enclosed is a book to read with your child over the week at home in a manner in which you are accustomed. Please return the evaluation form in the sealed envelope on Wednesday. The book is yours to keep!

This week the book title is: Amazing Snakes: It takes readers into the amazing world of snakes with full color photographs. Enjoy!

Please remember not to discuss these activities with other parents partaking in this valuable research study.

Thank you so much for participating!

Experimental group:

Dear Family,

Enclosed is a book to read with your child over the week at home. Please use the art supplies provided to do an art activity after reading the book with your child. There is no correct or incorrect way to do the art project as long as it relates to the book in some way. It is to be done after reading the book in a way that is most comfortable to you and your child. Please return the evaluation form and the artwork that was created in the sealed envelope on Wednesday. The book is yours to keep!

This week the book title is: Amazing Snakes: It takes readers into the amazing world of snakes with full color photographs. Enjoy!

Please remember not to discuss these activities with other parents partaking in this valuable research study.

Thank you so much for participating!

Week 5

Control group:

Dear Family,

Enclosed is a book to read with your child over the week at home in a manner in which you are accustomed.

This week the book title is: Hi! Fly Guy. A wonderful story where Buzz meets a fly that can say his name and decides it should be his pet and tries to convince his parents and the judges at a pet contest. Enjoy!

After you have read this book with your child please complete the surveys attached and return in the sealed envelope on Wednesday. Remember the surveys should not take more than 10 minutes to complete. The book is yours to keep!

Please remember not to discuss these activities with other parents partaking in this valuable research study.

Thank you so much for participating!

Experimental group:

Dear Family,

Enclosed is a book to read with your child over the week at home. Please use the art supplies provided to do an art activity after reading the book with your child. There is no correct or incorrect way to do the art project as long as it relates to the book in some way. It is to be done after reading the book in a way that is most comfortable to you and your child.

This week the book title is: Hi! Fly Guy. A wonderful story where Buzz meets a fly that can say his name and decides it should be his pet and tries to convince his parents and the judges at a pet contest. Enjoy!

After you have read this book with your child please complete the surveys attached and return with the artwork that was created in the sealed envelope on Wednesday. The book is yours to keep! Remember the surveys should not take more than 10 minutes to complete.

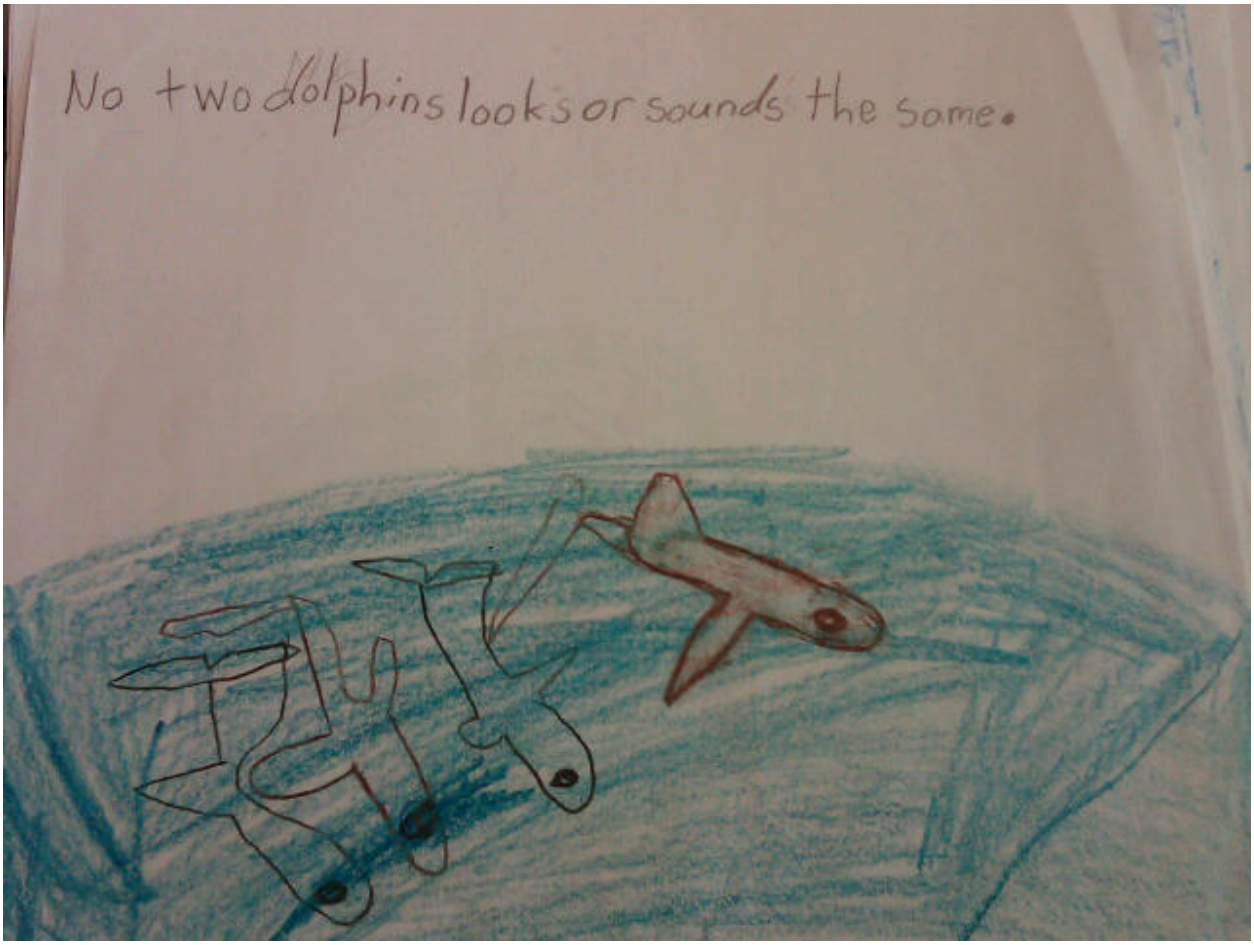
Please remember not to discuss these activities with other parents partaking in this valuable research study.

Thank you so much for participating!

Appendix K

Children's Art Work


name
fly guy
name
Buzz


No two dolphins looks or sounds the same.

References

Bandura, A. (1989). Regulation of cognitive processes through perceived self-efficacy. *Developmental Psychology, 25*, 729-735.

Barbour, A. C. (1999). Home literacy bags promote family involvement. *Childhood Education, 75*(2), 71-75.

Bennett, K. K., Weigel, D. J., & Martin, S. S. (2002). Children's acquisition of early literacy skills: Examining family contributions. *Early Childhood Research Quarterly, 17*, 295-317.

Berghoff, B. (2001). Going beyond words. *Primary Voices K-6, 9*, 34-37.

Berghoff, B. (1998). Inquiry about learning and learners. *The Reading Teacher, 51*, 520-523.

Bingham, G. E. (2007). Maternal literacy beliefs and the quality of mother-child book-reading interactions: Associations with children's early literacy development. *Early Education and Development, 18*(1), 23-49.

Bowman, B., Donovan, M. S., & Burns, M. S. (Eds.) (2001). *Eager to learn: Educating our preschoolers.* Washington, DC: National Academy Press.

Brody, G. H., Flor, D. L., & Gibson, N. M. (1999). Linking maternal efficacy beliefs, developmental goals, parenting practices, and child competence in rural single-parent African American families. *Child Development, 70*(5), 1197-1208.

Burgess, S. (2002). Shared reading correlates of early reading skills. *Reading Online, 5*(7), 1-12.

Bus, A. G. (2003). Social-emotional requisites for learning how to read. In A. van Kleek, S. A. Stahl, & E.B. Bauer (Eds.), *On reading books to children* (pp. 3-15). Mahwah, NJ: Erlbaum.

Bus, A. G, van IJzendoorn, M. H., & Pelligrini, A. D. (1995). Joint book reading makes for success in learning to read: A meta-analysis on intergenerational transmission of literacy. *Review of Educational Research, 65*(1), 1-21.

Carger, C. L. (1998) Art and literacy with bilingual children. *Language Arts, 81*, 282-292.

Christian, K., Morrison, F. J., & Bryant, F. B. (1998). Predicting kindergarten academic skills: interactions among child care, maternal education, and family literacy environments. *Early childhood research quarterly, 13*(3), 501-521.

Coleman, P. K., & Karraker, K. H. (1997). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review, 18,* 47-85.

Cook-Cottone, C. (2004). Constructivism in family literacy practices: Parents as mentors. *Reading Improvement, 41*(4), 208-216.

Cox, C., & Boyd-Batstone, P. (1997). *Crossroads: Literature and language in culturally and linguistically diverse classrooms.* Upper Saddle River, New Jersey: Prentice-Hall.

Currenton, S. M., & Justice, L. M. (2008). Children's preliteracy skills: Influence of mothers' education and beliefs about shared-reading interactions. *Early Education and Development, 19*(2), 261-283.

Dearing, E., Kreider, H., Simpkins, S., & Weiss, H. B. (2006). Family involvement in school and low-income children's literacy: Longitudinal associations between and within families. *Journal of Educational Psychology, 98*(4), 653-664.

DeBaryshe, B. D. (1995). Maternal belief systems: Lynchpin in the home reading process. *Journal of Applied Developmental Psychology, 16,* 1-20.

DeBaryshe, B. D., & Binder, J. C. (1994). Development of an instrument for measuring parental beliefs about reading aloud to young children. *Perceptual and Motor Skills, 78,* 1303-1311.

DeBaryshe, B. D., Binder, J. C., & Buell, M. J. (2000). Mothers' implicit theories of early literacy instruction: Implications for children's reading and writing. *Early Child Development and Care, 160,* 119-131.

Dever, M. T., & Burts, D. C. (2002). An evaluation of family literacy bags as a vehicle for parent involvement. *Early Child Development and Care, 172*(4), 359-370.

Dickinson, D. K., & Tabors, P. O. (Eds.), (2001*). Beginning literacy with language: Young children learning at home and school.* Baltimore, MD: Brooks.

Edwards, P. A. (2007). Home literacy environments: What we know and what we need to know. In M. Pressley, A. K. Billman, K. H. Perry, K. E. Reffitt, & J. M. Reynolds (Eds.), *Shaping literacy achievement* (pp. 42-76). New York, NY: Guillford Press.

Edwards, P. A., & Danridge, J. C. (2001). Developing collaboration with culturally diverse parents. Collaboration for diverse learners: Viewpoints and practices. Newark, Del: International Reading Association.

Edwards, P. A., Pleasants, H. M., & Franklin, S. H. (1999). *A path to follow: Learning to listen to parents.* Portsmouth, NH: Heinmann.

Ehrenworth, M. (2003). Literacy and the aesthetic experience: Engaging children with the visual arts in the teaching of writing. *Language Arts, 81*, 43-51.

Englund, M. M., Luckner, A. E., Whaley, G. J. L., & Byron, E. (2004). Children's achievement in early elementary school: Longitudinal effects of parental involvement, expectations, and quality of assistance. *Journal of Educational Psychology, 96*(4), 723-730.

Evans, M. A., Fox, M., Cremaso, L., & McKinnon, L. (2004). Beginning reading: The views of parents and teachers of young children. *Journal of Educational Psychology, 96*(1), 130-141.

Evans, M. A., Shaw, D., & Bell, M. (2000). Home literacy activities and their influence on early literacy skills. *Canadian Journal of Experimental Psychology, 54*(2), 65-75.

Faires, J. (2000). Effects of parental involvement in developing competent readers in first grade. *Reading Psychology, 21*, 195-215.

Fan, X., & Chen, M. (1999). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review, 13*, 1-22.

Flouri, E., & Buchanan, A. (2004). Early father's and mother's involvement and child's later educational outcomes. *British Journal of Educational Psychology, 74*, 141-153.

Frijters, J. C., Barron, R. W., & Brunello, M. (2000). Direct and mediated influences of home literacy and literacy interest on prereaders' oral vocabulary and early written language skills. *Journal of Educational Psychology, 92*(3), 466-477.

Gelfer, J., Higgins, K., & Perkins, P. (2000). Literacy education and families: A program and its progress. *Early Child Development and Care, 167*, 39-50.

Gillanders, C., & Jimenez, R. T. (2004). Reaching for success: A close-up of Mexican immigrant parents in the USA who foster literacy success for their kindergarten children. *Journal of Early Childhood Literacy, 4*(3), 243-269.

Greene, M. (2001). Variations on a blue guitar. The Lincoln center institute lectures on aesthetic education. New York: Teachers College Press.

Griffin, E. A. & Morrison, F. J. (1997). The unique contribution of home literacy environment to differences in early literacy skill. *Early Childhood Development and Care, 127-128*, 233-243.

Gipe, J. P., Richards, J. C., & Moore, R. C. (2001, March). Integrating literacy lessons and the visual and communicative arts: Preservice teachers' concerns and challenges. *Reading Online, 4*(8). Available: http://www.readingonline.org.

Handel, R. D. (1999). The multiple meanings of family literacy. *Education and Urban Society, 32*(1), 127-144.

Heymsfeld, C. (1997). Art-the fourth "R." *Reading and Writing Quarterly, 13,* 315-323.

Hoover-Dempsey, K. B., & Sandler, H. M. (1997). Why do parents become involved in their children's education? *Review of Educational Research, 67,* 3-42.

International Reading Association (2007). IRA committee offers guidelines of criteria for family literacy programs. *Reading Today, 24*(6), 37-37.

Izzo, C., Weiss, L., Shanahan, T., & Rodriguez-Brown, F. (2000). Parental self-efficacy and social support as predictors of parenting practices and children's socioemotional adjustment in Mexican immigrant families. *Journal of Prevention & Intervention in the Community, 20*(1/2), 197-213.

Jeynes, W. H. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education, 40*(3), 237-269.

Johnson, H. L. (2007). Aesthetic experience and early language and literacy development. *Early Child Development and Care, 177*(3), 311-320.

Jordon, G. E., Snow, C. E., & Porche, M. V. (2000). Project EASE: The effect of a family literacy project on kindergarten students' early literacy skills. *Reading Research Quarterly, 35*, 524-546.

Levy, B. A., Gong, Z., Hessels, S., Evans, M. A., & Jared, D. (2006). Understanding print: Early reading development and the contributions of home literacy experiences. *Journal of Experimental Child Psychology, 93,* 63-93.

Lynch, J., Anderson, J., Anderson, A., & Shapiro, J. (2006). Parents' beliefs about young children's literacy development and parents' literacy behaviors. *Reading Psychology, 27*(1), 1-20.

Mason, J., & Allen, J. B. (1986). A review of emergent literacy with implications for research and practice in reading. *Review of Research in Education, 13,* 3-47.

McGuire, G. N. (1984). How arts instruction affects reading and language: Theory and research. *The Reading Teacher, 37*, 835-839.

Mol, S. E., Bus, A. G., de Jong, M. T., & Smeets, D. J. H. (2008). Added value of dialogic parent-child book readings: A meta-analysis. *Early Education and Development, 19*(1), 7-26.

Morrow, L. M., Kuhn, M., R., & Schwanenflugel, P. J. (2006). The family fluency program. *The Reading Teacher, 60*(4), 322-333.

Morrow, L. M. & Young, J. (1997). A family literacy program connecting school and home: Effects on attitude, motivation, and literacy achievement. *Journal of Educational Psychology, 894*, 736-742.

National Assessment of Educational Progress (2003). *The nation's report card: Reading highlights (*NCES Publication No. 2004-452). Washington, DC: National Center for Educational Statistics.

National Assessment of Educational Progress (2005). *The nation's report card.* Washington, DC: National Center for Educational Statistics.

Neuman, S. B., & Roskos, K. (2005). Whatever happened to developmentally appropriate practice in early literacy? *Journal of the National Association for the Education of Young Children,*1-5.

Padak, N., Sapin, C., & Baycich, D. (2002). *A decade of family literacy: Programs, outcomes, and future prospects.* (ERIC Document Reproduction Service No. ED465074).

Pattnaik, J. (2003). Multicultural literacy starts at home; supporting parental involvement in multicultural education. *Childhood Education, 80*, 18-24.

Payne, A. C., Whitehurst, G. J. & Angell, A. L. (1994). The role of home literacy environment in the development of language ability in preschool children from low-income families. *Early Childhood Research Quarterly, 9*, 427-440.

Peterson, R. (1992) *Life in a crowded place: Making a learning community*. Portsmouth, NH: Heinemann.

Poe, M., Burchinal, M. R., & Roberts, J. E. (2004). Early language and the development of children's reading skills. *Journal of School Psychology, 42*(4), 315-332.

Ponzetti, Jr. J. J., & Dulin, W. (1997). Parent education in Washington State even start family literacy programs. *Early Childhood Education Journal, 25*(1), 23-29.

Pransky, K., & Bailey, F. (2003). To meet your students where they are, first you have to find them: Working with culturally and linguistically diverse at-risk students. *The Reading Teacher, 56*(4), 370-383.

Primavera, J. (2000). Enhancing family competence through literacy activities. *Journal of prevention & Intervention in the community, 20*(1/2), 85-101.

Purcell-Gates, V. (1996). Stories, coupons, and the TV guide: Relationships between home literacy experiences and emergent literacy knowledge. *Reading Research Quarterly, 31*(4), 406-428.

Richardson, M. V., Richardson, J. A., Sacks, K., & Sacks, G. (1993). Reading, writing with art leads to literacy. *Reading Improvement, 30*(3), 151-156.

Roberts, J., Jurgens, J., & Burchinal, M. (2005). The role of home literacy practices in preschool children's language and emergent literacy skills. *Journal of Speech and Hearing Research, 48*(2), 345-359.

Rosenblatt (1986) The aesthetic transaction. *Journal of Aesthetic Education, 20*(4), 122-128

Roth, F. P., Speece, D. L., Cooper, D. H. (2002). A longitudinal analysis of the connection between oral language and early reading. *Journal of Educational Research,95*(5), 259-272.

Saracho, O. N. (1999). Families' involvement in their children's literacy development. *Early Child Development and Care, 153,* 121-126.

Saracho, O. N. (2000). Literacy development in the family context. *Early Child Development and Care, 163,* 107-114.

Saracho, O. N. (2002). Family literacy: Exploring family practices. *Early Child Development and Care, 172*(2), 113-122.

Scarborough, H. S., & Dobrich, W. (1994). On the efficacy of reading to preschoolers. *Developmental Review, 14*, 245-302.

Sénéchal, M. (2006). *The Effects of family literacy interventions on children's acquisition of reading from kindergarten to grade 3: A meta-analytic review.* National Institute for Literacy. Portsmouth, New Hampshire.

Sénéchal, M., & LeFevre, J. (2002). Parental involvement in the development of children's reading skill: A five-year longitudinal study. *Child Development, 73*(2), 445-460.

Sharif, I., Ozuah, P. O., Eugene, I. D., & Mulvihill, M. (2003). Impact of a brief literacy intervention on urban preschoolers. *Early Childhood Education Journal, 30*(3), 177-180.

Sigel, I. E., & McGillicuddy-De Lisi, A. V. (2002). Parent beliefs in cognitions: The dynamic belief systems model. In M. H. Mahwah: New Jersey.

Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. New York: National Academy Press. Bornstein (Ed.), Handbook of Parenting, 2(3).

Soundy, C. S., & Qiu, Y. (2006). Portraits of power: American and Chinese children explore literacy through the visual arts. *Childhood Education, 83*(2), 68-74.

Teti, D. M., & Gelfand, D. M. (1991). Behavioral competence among mothers of infants in the first year: The meditational role of maternal self-efficacy. *Child Development, 62,* 918-929.

Walker, B. (2000). *Diagnostic teaching of reading: Techniques for instruction and assessment.* Upper Saddle River, NJ: Prentice Hall.

Weigel, D. J., Martin, S. S., & Bennett, K. K. (2006). Mothers' literacy beliefs: Connections with the home literacy environment and pre-school children's literacy development. *Journal of Early Childhood Literacy, 6*(2), 191-211.

Whitehurst, G. J., & Lonigan, C. J. (1998). Child development and emergent literacy. *Child Development, 69*(3), 848-872.

Xu, H. (1999). Young Chinese ESL children's home literacy experience. *Reading Horizons, 40*(1), 1-13.